PROCEEDINGS OF THE
MERCHANT MARINE COUNCIL
UNITED STATES COAST GUARD

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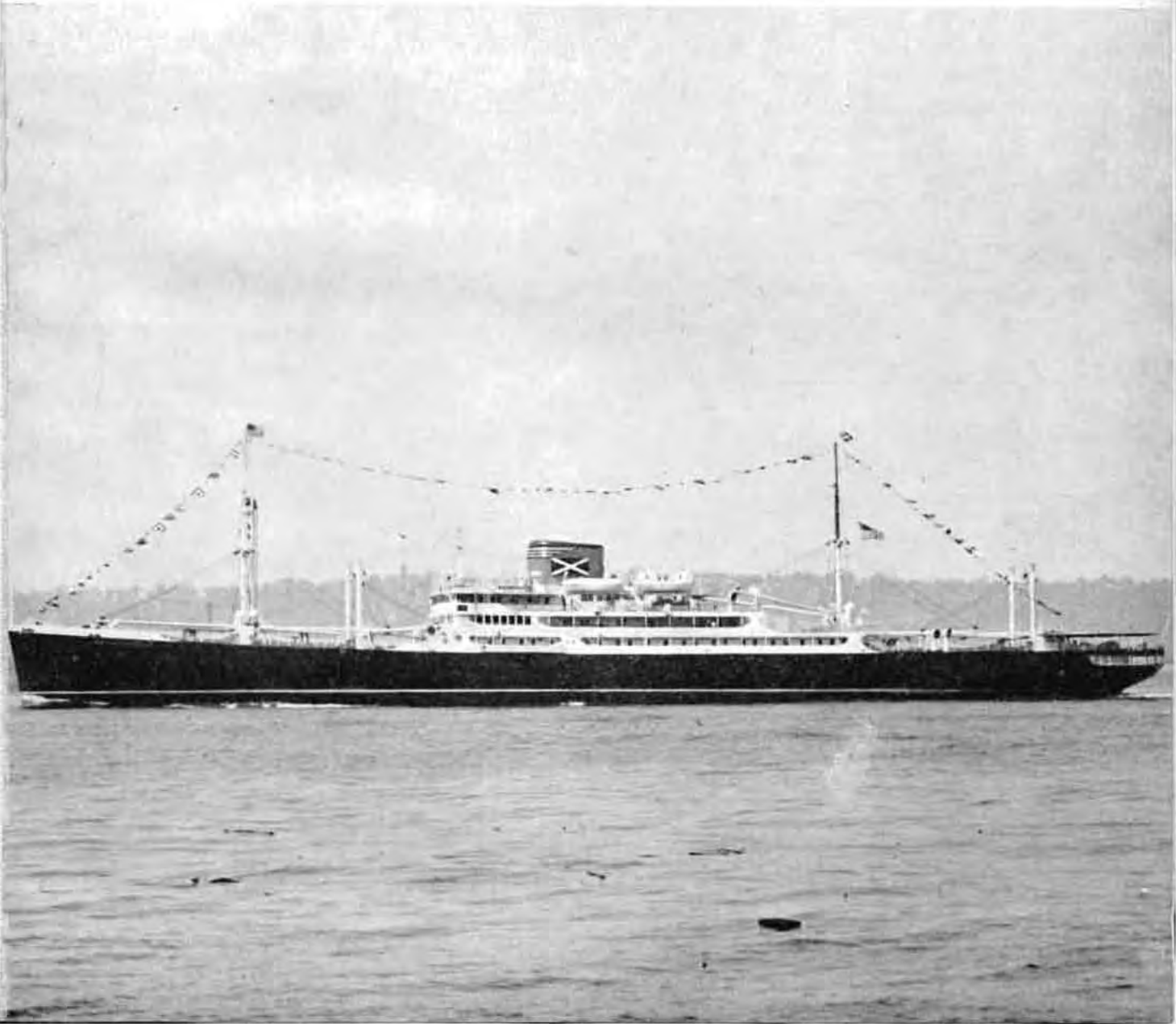

Proceedings of the

MERCHANT MARINE COUNCIL

Published monthly at Coast Guard Headquarters, Washington 25, D. C., under the auspices of the Merchant Marine Council, in the interest of safety at sea. There are no restrictions on the republication of material appearing in this issue except the article "Floating Mines at Sea-Mines Clearance Board's Statement," on page 201.

Mention of source will be appreciated.

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A: a, b, c, d (2 ea.); remainder (1 ea.).
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C: All (1 ea.).
D: All (1 ea.).
E: m (1 ea.).
List 141M.

Seasons Greetings

The Merchant Marine Council extends to all our readers a Joyful Christmas and a Happy and Prosperous New Year.

HARBOR RADAR INSTALLATION

Long Beach, Calif.

DESCRIPTION OF INSTALLATION

(1) The following description has been prepared by the U. S. Coast Guard, for the technical information of the U. S. Radio Technical Committee for Marine Services. The information has been obtained through the courtesy of the Port of Long Beach authorities and the manufacturer, by personal interviews and by inspection of the station by Coast Guard engineers.

(2) By arrangement of Mr. C. L. Vickers, of the Long Beach Harbor Department, a comprehensive inspection of the plant was conducted under the guidance of Mr. Thomas J. Thorley, Senior Harbor Engineer; Mr. R. H. Baldridge, Senior Harbor Engineer; and Mr. J. E. Jacobson, Station Manager.

(3) The equipment at the radar station, which is also the pilot station, consists of a Sperry Mark II, Model 0, radar calibrated in nautical miles, a Motorola type FSTRU–50 FM transreceiver, and a plotting board and protractor. Motorola Model FMTR–30D trans-receiving equipment is carried on the pilot boats while Motorola FHTRU–1AL portable equipments are carried by the pilots. To date, the system has not been employed under actual conditions of poor visibility. Operations have been confined to testing, especially with respect to various types of communication equipment to be used for relaying piloting information. Thus far several ships have maneuvered in testing operations.

(4) The Port of Long Beach Harbor Department has considered it expedient to contract for harbor pilotage and at present, the J. A. Jacobson Co., Inc., holds a 5-year contract to furnish such service. Although the Harbor Department will own all radar and radio communication equipment used, it is so far planned that the contractor will furnish the necessary personnel for operating the equip-

ment, including the radar observer and plotter. In this connection, some thought is being given to combining the radar observation and plotting functions. As to training of radar personnel, a wide range of experience in target recognition and equipment operation has been obtained during the current testing period. It is intended that present radar personnel will indoctrinate others in the use of the equipment from time to time.

(5) In actual operation, it is planned that when a vessel is to be brought in under conditions of low visibility after its initial position is ascertained, the vessel's movements are merely observed by radar until such vessel is within four or five miles of the Federal breakwater entrance. It is assumed that the pilot boat has been guided to the vessel and the pilot is on board. At this point, the ship is furnished an approach course and radar fixes are then plotted every two minutes as a double check on the identity of the vessel. Progress of the vessel is thus watched and advice furnished the pilot as to probable collision courses and other information required for safe navigation of the vessel. By successively reducing the radar range from 30 to 15 to 4 nautical miles, for approach, then finally using the 2 and 1 mile ranges for close-in work, it appears entirely possible to guide any ship safely to any dock in the Long Beach harbor area or to an anchorage inside the Federal breakwater. In this respect, it is strictly understood that by reason of any information furnished by the radar station, the master or pilot shall, in no manner or extent, be excused from any responsibility for the safety of his vessel or from full compliance with all provisions of law and regulations prescribing rules of the nautical road and ship navigation. This and other stipulations, as contained in a letter of authority from the Commandant of the U. S. Coast Guard are posted in the radar room and are strictly adhered to. Reference to G. C. A. in public press releases was intended only to imply that data such as ships present position, course information, information relative to traffic moving in the immediate area, etc., would be obtained by radar observation and furnished the ship's master or pilot by means of radiotelephone communication.

(6) Further technical details of the equipment employed are as follows:

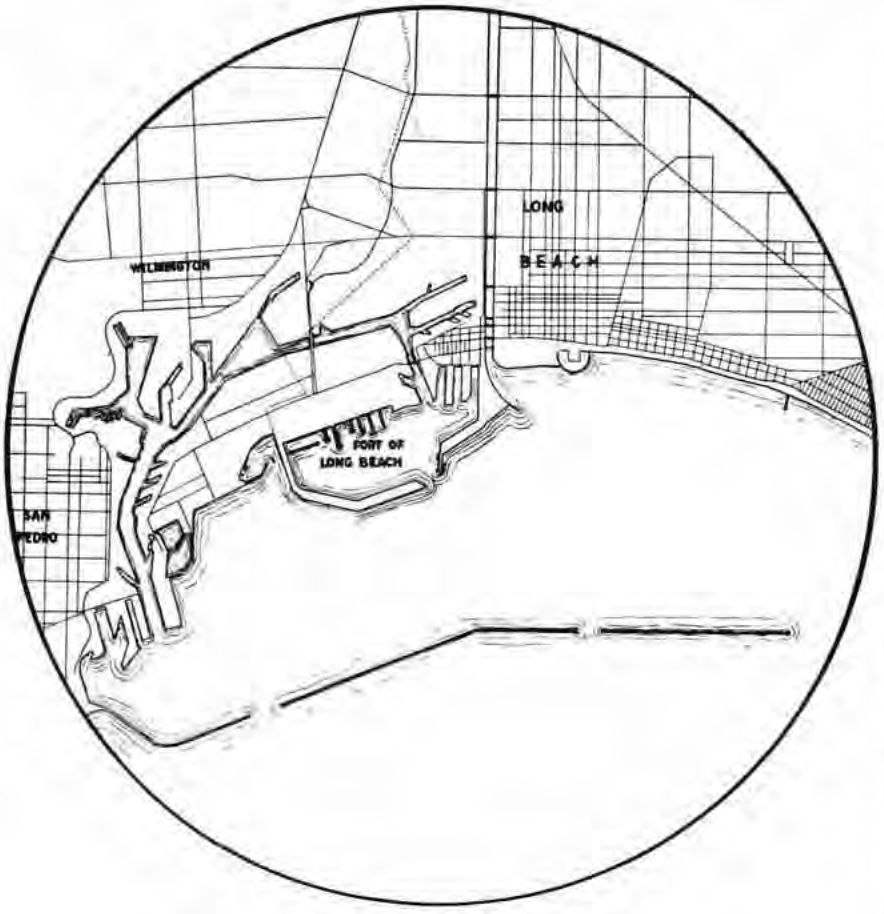
(a) Radar: The radar used is a Sperry Mark II, Model 0, calibrated in nautical miles. It operates in the three centimeter band in the frequency range 9320 to 9430 megacycles, with pulse rate 1000 per second, 0.25 microseconds in width. The radar antenna is mounted on top of a 120-foot high steel tower (formerly an oil derrick) located adjacent to the pilot station. This antenna has a 4-foot wide reflector which produces a horizontal beam width of 1.25 degrees. The Sperry Gyroscope Co. has in manufacture for this installation an 8-foot wide reflector which, when installed, is expected to produce a beam width of 1.0 degrees.

(b) Pilot station trans-receiver: The pilot station trans-receiver installed is a Motorola, type FSTRU–50, 50 watt, FM unit, operating on a frequency of 156.80 megacycles. The antenna employed with this trans-receiver is a folded unipole mounted on top of the pilot station.

(c) Pilot boat trans-receiver: The trans-receiver installed in the pilot boats are Motorola, type FMTRU–30D, 30 watt, FM units, operating on 156.80 megacycles.

(d) Pilot's pack equipment: The pilot's pack equipment in use are Motorola, type FHTRU–1AL, 2 watts, FM, operating also on 156.80 megacycles. These equipments are light and compact, weighing only 9.8 pounds. Preliminary tests have shown these trans-receivers to be very efficient, having a proven reliable range of up to 20 miles with over-water path of transmission. As an experiment, successful two-way communication was conducted over a distance of about 5 miles when the trans-receiver was operated from the forward hold of a steel ship. Other similar equipment manufactured by Federal Telephone and Radio, Link, Bendix, as well as Western Electric lightweight earphone and microphone assemblies, are still under consideration.

As an adjunct to radiotelephone communication, a directional loudspeaker system is to be installed with rotata-



Sketch of Port of Long Beach.

ble horn mounted on top of the pilot station. The speakers are being manufactured by the University Speaker Manufacturing Co. and will be driven by two 200-watt audio amplifiers manufactured by the Hollywood Electronics Co. The system is expected to have an audible range of 1.5 nautical miles.

TENTATIVE OPERATING INSTRUCTION FOR TRIALS

A radar team and the equipments used shall consist of the following:

(a) Radar trackers—Sperry radar indicator.

(b) Plotter—Long Beach Harbor chart, drafting instruments and shore based short wave communication set.

(c) Pilot—Portable short wave transmitter-receiver set.

OPERATIONS

ONLY TRUE BEARINGS ARE TO BE USED

RADAR TRACKER:

(a) The radar operator shall have complete charge of radar indicator operations and is to remain at the indicator during all operations.

(b) He should check the electrical orientation and range on at least two known land marks prior to giving out any information.

(c) His duties shall consist of keeping the cursor and variable range marker on the pilot boat from the time of departure from its mooring until the pilot boards the vessel which is to be conducted into the harbor and to transmit to the plotter range and bearing on any object requested by the plotter.

(We are attempting to obtain some positive means of identification for the pilot boat. This will decrease the tension under which he now operates in following the pilot boat, since it blends into the return from craft in close proximity.)

PLOTTER:

(a) The plotter first should check his drafting instruments for proper orientation with respect to the Long Beach Harbor chart.

(b) Second, he should check the operation of his shore-based short-wave set prior to actual operations.

(c) Thirdly, from the time the pilot boat leaves its mooring until the pilot goes aboard the vessel to be monitored, he is to keep the pilot boat's position plotted at all time. From these plotted positions he is to transmit to the pilot by short wave the course or courses to be steered in order to contact the objective.

(d) After the pilot has boarded the vessel, the plotter is to transmit to him the vessel's position and the suggested course, or courses, to follow to the center of the breakwater entrance channel.

(e) Thereafter, he is to keep a charted record of the vessel's positions and transmit to the pilot which will enable him to correct the course of said vessel should the occasion arise.

PILOT:

(a) Not only is the pilot to check the functioning of the short wave communication set prior to departure from the dock but also, at least, every 3 minutes or oftener if he sees fit during operations.

(b) If there should be any interruption of communication with the plotter at any time during operations, the boat or vessel he is aboard is to be stopped until contact has been resumed.

(c) En route from the pilothouse mooring to the vessel he is to relay to the helmsman of the pilot boat information which he receives from the plotter. In addition, he is to inform the plotter regarding any objects passed and which are visible.

(d) When the pilot arrives alongside the vessel and boards same he is to notify the plotter and receive from him the information outlined in paragraph (d) of the plotter's instructions. As a double check, it would be wise for the pilot to also plot the vessel's position and the course to be followed on the vessel's chart.

(e) If agreeable with the vessel's captain that she be conducted into the harbor under radar guidance, due caution is to be observed under reduced speed and with close checks with the plotter. If the pilot so desires, he should call on the ship's officers to plot radar positions emanating from the plotter, thus duplicating and checking the plotter's work in the pilothouse.

MAINTENANCE

RADAR OPERATOR:

The radar operator should be versed not only in the operation but also in the maintenance of the radar equipment, including minor trouble-shooting.

PLOTTER:

The plotter should be responsible not only for the exactness of his

drafting instruments but also for maintaining the short-wave shore-based equipment in proper operating condition.

PILOT:

The pilot should be versed in the proper maintenance of the portable short-wave communication set.

FLOATING MINES AT SEA

MINE CLEARANCE BOARD'S STATEMENT

Reprinted from the Merchant Navy Journal, Autumn 1949, vol. XI, Nos. 7–9, July–September 1949 (p. 314).

Following the sinking of the Belgian steamship *Prinses Astrid* off Dunkirk, and subsequent reports of floating mines in European waters, a summary of the position was issued recently from the president of the International Mine Clearance Board, through the Admiralty. Although it is not definitely established that the *Prinses Astrid* was sunk by a mine, it is considered almost certain that she was, but it was not a floating mine that was the cause of the sinking.

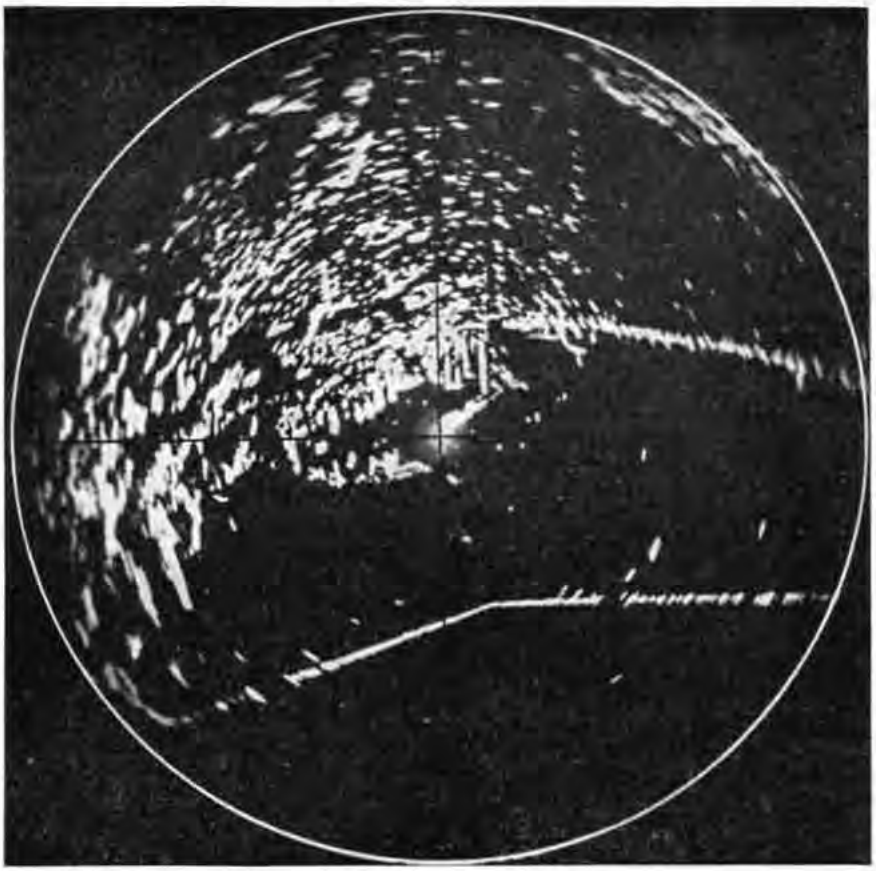
The official statement says that the coastal waters of the British Isles are regarded as clear from mines, with the exception of a small area between Malin Head, in Ireland, and the Isle of Islay, off the west coast of Scotland, which it is impossible to sweep.

In addition, reports have been received of five remoored mines off the east coast, remoored mines being mines of the moored type which have floated away from minefields and by some means have become remoored. Efforts to find these reported remoored mines have not met with positive results, and it must therefore be assumed that they may still exist.

Mined areas still exist on the west coast of France, the coasts of Belgium, Holland, Germany, and Denmark, in the Kattegat, the Sounds, the Belts, and the Baltic, and certain parts of the Mediterranean and Black Seas.

Where mined areas still remain, wide channels, well marked by buoys, have been swept through the minefields, and shipping proceeding in these waters is warned to navigate by these channels.

Although, with the exception of the areas already mentioned, the North Sea is considered clear of mines, it is known that aircraft jettisoned mines there. Such jettisoned mines were in a harmless condition, but to ensure safety several swept routes have been established crossing the North Sea and up the east coast of England, and shipping is warned to proceed by these routes.



Radar Scope Picture of Port of Long Beach.

The statement says that the Admiralty does not, as a general rule, issue warnings about floating mines, as it is impossible to keep track of their movements, but ships sighting such mines often report their presence. Admiralty Notice to Mariners, No. 3099, of 1945, a notice which is issued annually, specifically requests ships not to do this.

In the event of a floating mine appearing in a narrow channel or off the entrance to a port, consideration would be given to issuing a warning to shipping. In most instances this would be done by the authorities of the port concerned. It is not possible to sweep floating mines. It is usual to sink them by rifle fire.

By international law, all moored mines are fitted with a mechanism which renders them harmless when they break away from their moorings. Due to long immersion in the sea, however, mines become encrusted with barnacles and marine growth, and this may prevent the safety mechanism from operating in all cases.

It is therefore impossible to state categorically that all floating mines are safe. At the same time it is most unlikely that a ship under way would strike a floating mine, as the bow wave washes it away from the ship's side.

Since the end of the war, four ships are reported to have been sunk by floating mines. Floating mines are an unpleasant aftermath of the war which, unfortunately, are likely to continue for some time to come, though their numbers will decrease with the passage of time. It is of interest, however, that some floating mines recently destroyed off the Continental coast were found to be of 1914–18 vintage.

MOTORBOAT AND YACHT PANEL

Mr. J. E. Choate, Secretary to the National Association of Engine and Boat Manufacturers, Inc., as the Chairman of the Motorboat and Yacht Panel to the Merchant Marine Council, has called a meeting of this Panel in New York, N. Y., on January 30, 1950. The Panel is composed of consultants selected for their outstanding ability in their particular phases of pleasure boating, merchant marine, and kindred industries.

5-BLAST WHISTLE SIGNAL FOR SHIPS AFIRE IN PORT

The American Association of Port Authorities through the Chairman of the Committee of Hazardous Cargo, Mr. Billings Wilson, has informed the Commandant of the U. S. Coast Guard on September 20, 1949, that the following 56 ports in the United States and its possessions have adopted the 5-blast whistle or siren signal to be sounded by ships when afire in port or in the harbor, except vessels under way, as a supplement to other means of sounding the alarm of fire aboard the vessel. Subject signal may be repeated at intervals to attract attention and is not a substitute for, but may be used in addition to, other means of reporting a fire. The words, "prolonged blast," as used here, mean blasts of from 4 to 6 seconds duration.

Port	*Date adopted*
1. Los Angeles Harbor.	July 1947.
2. Long Beach, Calif.	1947.
3. Albany Port District Commission.	May 1, 1948.
4. Port Corpus Christi.	May 17, 1948.
5. Port Tacoma	May 20, 1948.
6. Gloucester, N. J.	June 3, 1948.
7. Toledo Port Commission.	July 26, 1948.
8. Wilmington, Del.	July 28, 1948.
9. Port Boston	Sept. 10, 1948.
10. Bristol, Pa	Sept. 13, 1948.
11. Port Isabel, Tex.	Sept. 22, 1948.
12. Brownsville, Tex.	Sept. 1948.
13. Galveston, Tex.	Sept. 1948.
14. Houston, Tex.	Sept. 1948.
15. Beaumont, Tex.	Sept. 1948.
16. Texas City, Tex.	Sept. 1948.
17. Lake Charles, La.	Sept. 1948.
18. Gulfport, Miss.	Sept. 1948.
19. Mobile, Ala.	Sept. 1948.
20. Pensacola, Fla.	Sept. 1948.
21. Tampa, Fla.	Sept. 1948.
22. Port Newark	Sept. 1948.
23. Richmond, Va.	Sept. 1948.
24. Chicago, Ill.	Sept. 1948.
25. Port New Orleans.	Oct. 1, 1948.
26. Baltimore, Md.	Oct. 1948.
27. Stockton, Calif.	Oct. 1948.
28. City of Newark	Nov. 1948.
29. Portsmouth, N. H.	Dec. 1, 1948.
30. Port Grays Harbor, Wash.	Dec. 2, 1948.
31. Port Bellingham, Wash.	Dec. 10, 1948.
32. Port Longview, Wash.	Dec. 13, 1948.
33. Portland, Oreg.	Dec. 23, 1948.
34. Newport News, Va.	Dec. 27, 1948.
35. New Haven, Conn.	Dec. 1948.
36. New Bedford Harbor.	Jan. 1, 1949.
37. Milwaukee, Wis.	Jan. 3, 1949.
38. Canal Zone	Jan. 4, 1949.
39. Seattle, Wash.	Jan. 1949.
40. Port Astoria, Oreg.	Jan. 1949.
41. Perth Amboy	Jan. 1949.
42. Vancouver, Wash.	Feb. 9, 1949.
43. Monroe, Mich.	Feb. 14, 1949.
44. Honolulu, Hawaii	Feb. 21, 1949.
45. Port Everglades, Fort Lauderdale, Fla.	Feb. 22, 1949.
46. Port Miami	Mar. 2, 1949.
47. Oakland, Calif.	Mar. 11, 1949.
48. San Francisco, Calif.	Mar. 18, 1949.
49. Port Philadelphia	Mar. 29, 1949.
50. Olympia, Wash.	Mar. 30, 1949.
51. Portland, Maine	Apr. 15, 1949.
52. Portsmouth, Norfolk, Va.	Apr. 29, 1949.
53. Port of San Diego, Calif.	Oct. 26, 1949.
54. Charleston, S. C.	Nov. 1949.
55. Georgetown, S. C.	Nov. 1949.
56. Beaufort, S. C.	Nov. 1949.

SPECIAL NAVIGATION LIGHTS FOR DESTROYER ESCORTS AND HUNTER KILLER DESTROYERS

The Secretary of the Navy on December 28, 1949, signed an order finding that destroyer escorts (DDE) and hunter killer destroyers (DDK) were of a special construction and that it was not possible for these types of vessels to comply with the navigation-light requirements. The following order No. 8 (a) was published in the Federal Register October 13, 1949, 14 F. R. 6234, and reads as follows:

DEPARTMENT OF DEFENSE

Department of the Navy

[No. 8 (a)]

DESTROYER ESCORTS (DDE) AND HUNTER KILLER DESTROYERS (DDK)

NAVIGATION LIGHTS

Whereas the act of December 3, 1945 (Pub. Law 239, 79th Cong., as amended by Pub. Law 433, 80th Cong.) provides that any requirement as to the number, position, range of visibility, or arc of visibility of navigation lights, required to be displayed by naval vessels under acts of Congress, as enumerated in said act of December 3, 1945, as amended, shall not apply to any vessel of the Navy where the Secretary of the Navy shall find or certify that, by reason of special construction, it is not possible with respect to such vessel or class of vessels to comply with statutory requirements as to the number, position, range of visibility, or arc of visibility of navigation lights; and

Whereas a study of the arrangement and position of the navigation lights of that type of naval vessels known as Destroyer Escorts (DDE) and Hunter Killer Destroyers (DDK), has been made in the Navy Department and, as a result of such study, it has been determined that because of their special construction it is not possible for Destroyer Escorts (DDE) and Hunter Killer Destroyers (DDK) to comply with the requirements of the statutes enumerated in said act of December 3, 1945, as amended;

Now, therefore, I, Francis P. Matthews, Secretary of the Navy, as a result of the aforesaid study do hereby find and certify that the type of naval vessels known as Destroyer Escorts (DDE) and Hunter Killer Destroyers (DDK) are naval vessels of special construction and that on such vessels, with respect to the position of the additional white light (commonly termed the range light), it is not possible to comply with the requirements of the statutes enumerated in the act of December 3, 1945, as amended. Further, I do find and certify that it is feasible to locate the said additional white light (commonly termed the range light), if such light is installed, forward of the masthead light in such position that the said additional white light and the masthead light shall be in line with the keel and the after light shall be at least fifteen feet higher than the forward light and the vertical distance between the two lights shall be less than the horizontal distance. I further direct that the aforesaid additional white light, if such light is installed, shall be located in the manner above described and I further certify that such location constitutes compliance as closely with the applicable statutes as I hereby find to be feasible.

Dated at Washington, D. C., this 28th day of September A. D. 1949.

FRANCIS P. MATTHEWS,
Secretary of the Navy.

[F. R. Doc. 49-8179; Filed, Oct. 12, 1949; 8:45 a. m.]

THE S. S. "AFRICAN ENTERPRISE"

This completely first-class luxury liner, which can carry 82 passengers, is owned by Farrell Lines. She and her identical sister ship, the *African Endeavor*, which entered service August 31, are introducing a completely new standard of luxury for the voyage between New York and Capetown. The vessels are 491 feet long; have a 65-foot 7-inch beam, and a displacement tonnage of 14,247, and a gross tonnage of 7,922.36.

It HURTS to get Hurt—Pass up the Wise Guy's advice and make SAFETY your habit. Accident prevention is largely an individual responsibility.

LESSONS FROM CASUALTIES

IMPROPER STOWAGE AND HANDLING OF DANGEROUS CARGO

The transporting of hazardous materials has been the subject of many articles. However, it is essential that everyone follow safety regulations which are intended to reduce to a minimum the hazards involved in transporting dangerous chemicals and explosives. The transportation of "gun powder" or "dynamite" when properly labeled is generally followed by all who are required to handle such items, but often little thought is given to the stowage of mixed cargo which can be explosive or hazardous if the containers should break.

Serious consideration to the proper stowage and handling of all cargo should be given before the cargo is stowed aboard a vessel. A few hours consideration of this matter may prevent many violations of safety regulations as well as prevent a serious fire or casualty.

Recently the Coast Guard received a letter from a foreign government complaining about the stowage of hazardous cargo found on a foreign vessel loaded in one of our ports.

"The stowage of No. 1 hatch of the vessel was as follows:

"(a) No. 1 'tween decks was stowed with 338 tons of cotton in bales in the square of the hatch. In the wings were a quantity of lubricating oil, timber, and general cargo.

"(b) No. 1 lower hold after section was stowed with lubricating oil and general cargo.

"(c) No. 1 lower hold forward section was stowed with 18 tons of sodium chlorate over paper, timber, and lubricating oils.

"The separation between the sodium chlorate shipment and the other cargo was dunnage over a tarpaulin."

This stowage was in violation of the regulations "Explosives or Other Dangerous Articles on Board Vessels," in that sodium chlorate is only permitted stowage "On deck under cover" or ""Tween decks readily accessible," and is not permitted to be stowed with explosives, acids (white label), inflammable liquids (red label), or combustible materials such as cotton, charcoal, sulfur, etc. Also, under the conditions to be observed in loading and transporting of cotton, may be found restrictions against the stowage of this material with inflammable solids or oxidizing materials.

Chlorates are strong oxidizing agents and supply their own oxygen to support combustion. Mixed with organic matter they form very inflammable mixtures and frequently act as high explosives when mixed with finely divided combustible material. All chlorates when brought in contact with sulfuric acid are liable to cause fire or explosion. Mixtures of chlorates with organic matters are extremely sensitive to shock and may be ignited by friction. Fires involving large quantities of chlorates are apt to culminate in an explosion. Water is one of the best extinguishing agents for this type of material.

There have been many shipboard fires in the past few years involving dangerous cargo and some of these, due to the type or mixture of the cargo, have resulted in detonation causing great loss of life and property damage. Not all of these fires can be attributed to poor handling and stowage, for there is always some danger present in the transportation of these dangerous materials even under ideal stowage and handling conditions. However, the necessity for stressing compliance with the safety requirements as set forth in the dangerous cargo regulations is very evident when we consider the increased amounts of these dangerous materials that are being transported today. To maintain a higher standard of safety should be the aim of all personnel concerned with the transportation of these materials.

ASPHYXIATION FROM DRY ICE

The old adage "familiarity breeds contempt" may have happened to a refrigeration engineer who recently died from asphyxiation while performing his duties. A refrigeration engineer while performing a routine check of temperatures of freezer boxes in which ice cream packed in dry ice had just been stored again points to the necessity for special care in the handling of dry ice (solidified carbon dioxide).

In this particular casualty men were loading and storing ice cream in the freeze boxes on G deck in the No. 3 hold of a cargo passenger vessel. The men objected to the operation of the blower while they were at work and were forced to lay off for an hour or more due to the heaviness of the air in the vicinity of the dry ice. Approximately 3,000 gallons of ice cream were stowed in the No. 5 cargo freeze box and an additional 2,000 gallons in the No. 3 box. When the operation was completed in the evening the doors were closed and the blower turned on again.

The refrigeration engineer had the 4 to 12 p. m. watch and one of his duties was to check the temperatures of the freeze boxes. According to the chief engineer the refrigeration engineer was "supposed" to report to the engineer on watch at the start and finish of his round of inspection of the freeze boxes, but frequently this was not done. On this particular evening the refrigeration engineer reported to the engineer at the start of his round of inspection. The refrigeration engineer's failure to report at the finish of his round of inspection was commented on but no investigation was made until his relief came on watch at midnight. At midnight when his relief came on duty a search was made for the missing refrigeration engineer and he was found lying face down just inside the open door of the No. 5 freeze box. Owing to the heaviness of the air, the relieving engineer was forced to go on deck immediately where he reported to the guard and then to the chief engineer. Fire and police aid were summoned, and, in removing the body from the compartment two others were overcome, one of whom later required a blood transfusion. The refrigeration engineer was pronounced dead and the cause given as accidental carbon-dioxide poisoning. This casualty need never to have occurred at all. In the first place the ice cream was being stored in a frigerated compartment. The use of dry ice was superfluous. Secondly, the refrigeration engineer came on duty before the storing of the ice cream was completed and cannot be excused

as not knowing that dry ice had been stored with the ice cream in the freeze boxes. If the refrigeration engineer knew about the dry ice, it can be expected that he would be familiar with the danger present when quantities of carbon dioxide are stored in a confined space. Danger is recognized when the concentration of carbon dioxide rises above one-tenth of 1 percent and instruments should be installed in all compartments for determining the percentage in the air wherever dry ice is habitually used or stored. The carbon dioxide being heavier than air forms a concentrated layer building up from the floor level. In this particular casualty when the refrigeration engineer opened the door he must have walked into a virtual wall of the choking vapor which caused him to collapse without a struggle.

A somewhat similar casualty occurred some years ago when overeager stevedores entered a hatch too quickly to unload cherries which had been packed in dry ice. When the hatch cover was removed several men jumped down at once into an invisible layer of the lethal gas which had formed immediately above the packed fruit and a number were overcome before help could reach them.

It cannot be too strongly emphasized that in dealing with the insidious danger of oxygen deficiency and the possible presence of odorless gases which strike down without warning it is vital that the persons working under those conditions should be thoroughly familiar with the hazards involved. It is also important that where a person is to check inclosed compartments where oxygen deficiency may be present that adequate checks are maintained at reasonable intervals upon such people, since the failure to report should be followed up quickly because it may mean the difference between life and death—and death is permanent.

RECKLESS OPERATION OF MOTORBOAT

On June 27, 1949, at about 1615, Miss Imogene Wittsche, 13, was struck by a speeding motorboat while she was wading in the shallow waters near the beach of Lake Tahoe, Calif. The propeller of the speeding motorboat severed both of Miss Wittsche's legs. The evidence in the case indicated that the responsible motorboat, while traveling at approximately 25 miles per hour, was deliberately navigated to come between Miss Wittsche and a girl companion who were playing in the shallow water close to the shore. It further indicated that after striking the girl, the boat made an 180° turn, passed back near the two girls and then sped away without offering any assistance.

Upon being indicted, the owner of the boat endeavored to avoid Federal prosecution by unsuccessfully contending that the waters of Lake Tahoe were not a part of the navigable waters of the United States.

After conviction, the Federal judge who had heard the case postponed sentence pending a report of the probation officer. The probation officer requested an expression of the official views of the Coast Guard as to the wisdom of probation. The Coast Guard replied that probation in this most serious and aggravated case would nullify enforcement of the law which was intended to protect the public from the danger of reckless or negligent operation of motorboats.

On November 7, 1949, the operator of the motorboat was sentenced to serve 6 months in a Federal prison and to pay a monetary fine of $1,500 by Judge Dal. M. Lemmon, United States District Court for the Northern District of California, Northern Division.

APPENDIX

Navigation and Vessel Inspection Circular No. 10–49

United States Coast Guard

Washington 25, D. C.
NOVEMBER 16, 1949.

Subj: Safety requirements for motorboats operated for pleasure and commercial fishing purposes and the requirements for the numbering and recording of undocumented vessels.

1. Navigation and Vessel Inspection Circular No. 8–48 is hereby canceled as the supply for public distribution is exhausted. The requirements covered by this circular have not been changed, except for the addition of explanatory information regarding the documentation of vessels as yachts.

2. The latest law affecting motorboats in the matter of their equipment is contained in an act of Congress dated April 25, 1940 (46 U. S. C. 526–526t), which superseded the Motorboat Act of 1910. This statute and the regulations issued thereunder are applicable to all motorboats and certain other vessels propelled by machinery other than by steam more than 65 feet in length, except (*a*) tugboats and towboats propelled by steam, (*b*) vessels propelled by steam more than 65 feet in length, (*c*) vessels having on board inflammable or combustible liquid cargo in bulk, (*d*) vessels which are subject to the International Convention for Safety of Life at Sea, 1929, carrying or certificated to carry more than 12 passengers on an international voyage by sea, as defined in said Convention, and (*e*) seagoing vessels of 300 gross tons and over propelled by internal combustion engines subject to inspection and certification by the Coast Guard. The act of April 25, 1940, and the regulations issued thereunder must be complied with by all vessels subject thereto operating on the navigable waters of the United States.

3. The act of June 7, 1918, as amended, which provides for the numbering and recording of undocumented vessels, is applicable to every undocumented vessel propelled in whole or in part by machinery, owned in the United States and found on the navigable waters thereof, except public vessels and vessels not exceeding 16 feet in length measured from end to end over the deck excluding sheer, temporarily equipped with detachable motors. The words "public vessels" as used in this act include vessels owned by the United States or by any state, county, city or municipality where such vessels are used in a governmental capacity. The exemption in favor of vessels not exceeding 16 feet in length temporarily equipped with detachable motors, is construed to apply to any undocumented vessel not exceeding 16 feet in length equipped with an outboard motor.

4. Prior to issuing regulations under the Motorboat Act of April 25, 1940, and the Numbering Act of June 7, 1918, as amended, the cooperation of yachtsmen, yacht and boatbuilders, and manufacturers of boating equipment was solicited. The regulations, therefore, have been formulated for the safety of the boating

public by practical men who represent both the Government and the industry, and their comments and suggestions were followed wherever possible in drafting the regulations. The regulations embody the safety requirements felt necessary by the public and the Government. The operation of motorboats in compliance with these regulations will increase safety of life on the navigable waters of the United States and should not be found burdensome. The numbering regulations were drafted with a view to the expeditious handling of applications for certificates of award of number for undocumented vessels and owners of such vessels will find that in the great majority of cases and with little effort on their part, they may immediately operate their vessels without unnecessary delay.

5. Given below is a brief digest of the more important features of the Motorboat Act of April 25, 1940, and the regulations issued thereunder.

A. A motorboat as defined by the act of April 25, 1940, includes any vessel propelled by machinery and not more than 65 feet in length except tugboats and towboats propelled by steam.

B. Fines and penalties will not be incurred for failure to carry the following equipment:

(*a*) Pilot rules.
(*b*) Fire extinguishers on outboard motorboats.
(*c*) Fog bells on motorboats less than 26 feet.
(*d*) Whistles on motorboats less than 16 feet.
(*e*) Fog horns on all motorboats.

C. *Navigation lights.*—If lights now installed are those which complied with the old motorboat law and have the range of visibility required by the new act, they may be continued in use as long as they are in serviceable condition. Lights installed or fitted 6 months after the termination of the national emergency shall be of a type approved by the Commandant.

D. *Whistles.*—If the whistle on board complies with the audibility requirements of the rules, even though not the type of whistle required, it may be continued in service until 6 months after the termination of the national emergency. After that date the specified type is required.

E. *Lifesaving equipment.*—An approved lifesaving device is required for every person on board. Box-type buoyant cushions will be permitted as life preservers on boats up to 40 feet in length. Approved life preservers or ring buoys are required for motorboats 40 feet and over. Purchasers of lifesaving equipment should look for the label or stamp indicating that the device is of a type approved by the Coast Guard.

Commercial fishing motorboats—life floats.—Wooden life floats made of light buoyant wood may be used on commercial fishing motorboats. The dimensions of every such wooden life float shall be not less than 4 feet in length, 12 inches in width, and 1¾ inches in thickness, and the weight shall not exceed 25 pounds. The float may be made in one or two pieces. If made in two pieces, the pieces shall be securely attached with wooden dowels. No metal shall be used in the construction of the float. It shall be provided with two handholes, one at each side, midway in the length, which handholes shall be not less than 6 inches in length and 2 inches in width, with a margin of at least 1 inch at the edge of the float. Wooden life floats, made of balsa wood, shall not be less than 3 feet in length, 11½ inches in width, and 2 inches in thickness. The balsa wood used in the construction of such floats shall be of the same quality as required for balsa wood life preservers. Each two-piece float, in addition to the doweling, shall be securely glued and the dowels shall be four in number, of ¾-inch diameter made of straight-grained, dry hardwood, driven through and entirely across the float through holes bored to slightly less diameter than the dowel.

F. *Ventilation.*—All motorboats which are constructed or decked over after April 25, 1940, and which use gasoline or other liquid fuel having a flash point of less than 110° F. shall be provided with ventilation as follows:

(*a*) At least two ventilators fitted with cowls or their equivalent for the purpose of properly and efficiently ventilating the bilges of every engine and fuel tank compartment in order to remove any inflammable or explosive gases.

(*b*) The ventilation of the boat is not required where the greater portion of the bilges of the engine and fuel tank compartments is open to the natural atmosphere.

G. *Fire extinguishers.*—The minimum number and type of extinguishers listed in the table are required on board. The type of extinguishers on motorboats, if in good and serviceable condition, may be used until 6 months after the national emergency. Purchasers of new fire extinguishers may inquire from the seller if the extinguisher is of a type approved by the Coast Guard. When in doubt

SAFETY REVIEW, OFFICE OF INDUSTRIAL RELATIONS, NAVY DEPARTMENT

this information may be obtained from the Officer in Charge, Marine Inspection, U. S. Coast Guard, in the area where the motorboat is located, or from the Commandant (MVI), U. S. Coast Guard, Washington 25, D. C.

H. *Reckless operation.*—Any person who shall operate any motorboat or any vessel in a reckless or negligent manner so as to endanger the life, limb, or property of any person shall be deemed guilty of a misdemeanor and on conviction thereof by any court of competent jurisdiction shall be punished by a fine not exceeding $2,000, or by imprisonment for a term of not exceeding 1 year, or by both such fine and imprisonment, at the discretion of the court.

6. From the following table one may readily determine the equipment required on the various classes of motorboats which are operated for pleasure purposes. The failure to have such equipment on board at all times when the vessel is operated, constitutes a menace to safety of life and subjects the owner, operator, and the vessel to the penalties prescribed by law.

7. In prescribing lights for auxiliary motorboats when propelled by sail and machinery or by sail alone, the regulations in 46 C. F. R. 25.1–1 to 25.1–8, inclusive, regarding navigation lights, must be complied with by motorboats when operating after sunset and before sunrise. The following requirements are taken from these regulations and apply to all motorboats, when propelled by sail and machinery or by sail alone:

A. Motorboats of classes A and 1, when propelled by sail and machinery or by sail alone, shall carry a white light aft to show all around the horizon. The combined lantern in the fore part of the vessel will not be carried.

B. Motorboats of classes 2 and 3, when propelled by sail and machinery or by sail alone, shall carry the colored side lights properly constructed and screened but not the white lights in the fore and aft part of the vessel.

C. In addition, motorboats of all classes, when propelled by sail and machinery or by sail alone, shall carry ready at hand a lantern or flashlight showing a white light which shall be exhibited in sufficient time to avert collision.

8. Equipment is required for the safety of the persons on board. To be effective it must be in good condition. For proper protection, equipment must not only be on hand but by frequent check it should be ascertained that the equipment is in working order and fully ready for the purpose for which it was designed.

NUMBERING AND RECORDING OF UNDOCUMENTED VESSELS

9. Under the act of June 7, 1918, as amended, and the regulations issued thereunder, every undocumented vessel operated in whole or in part by machinery, owned in the United States and found on the navigable waters thereof, except public vessels and vessels not exceeding 16 feet in length, measured from end to end over the deck excluding sheer, temporarily equipped with detachable motors, shall be numbered. The requirements contemplate that machinery-propelled undocumented vessels of less than 5 net tons used for commercial purposes, which are owned in the United States and found on such waters, be numbered under the provisions of the act as such vessels, by reason of tonnage, are exempt from documentation. The Numbering Act, however, is for the

EQUIPMENT REQUIREMENTS FOR PLEASURE AND COMMERCIAL FISHING MOTORBOATS

Equipment	Class A 0 to less than 16 feet	Class 1 16 to less than 26 feet	Class 2 26 to less than 40 feet	Class 3 40 to not more than 65 feet
Combination light	1 in fore part of boat showing red to port and green to starboard from right ahead to 2 points abaft the beam. Visible at least 1 mile.		None	None.
Port side light	None	None	1 on port side, properly screened to show red from right ahead to 2 points abaft the beam, visible at least 1 mile.	
Starboard side light	None	None	1 on starboard side properly screened to show green from right ahead to 2 points abaft the beam. Visible at least 1 mile.	
Stern light	1 bright white light aft showing all around the horizon. Visible at least 2 miles.			
Bow light	None	None	1 bright white light in fore part of boat showing from right ahead to 2 points abaft the beam on both sides. Visible at least 2 miles.	
Whistle [1]	None	1 hand, mouth, or power-operated, audible at least ½ mile.	1 hand or power-operated audible at least 1 mile.	1 power-operated audible at least 1 mile.
Bell	None	None	1 which produces, when struck, a clear bell-like tone of full round characteristics.	
Lifesaving devices [1]	1 approved life preserver or ring buoy or buoyant cushion for each person on board			1 approved life preserver or ring buoy for each person on board
Flame arrestors	1 approved on each carburetor of all gasoline engines installed after Apr. 25, 1940, except outboard motors.			
Ventilation	At least 2 ventilators with cowls or equivalent capable of removing gases from the bilges in engine and fuel tank compartments of boats constructed or decked after Apr. 25, 1940, using gasoline or other fuel of a flash point less than 110° F.			
Fire extinguishers	1 1-quart carbon tetrachloride or 1 1½-gallon foam or 1 4-pound CO_2 extinguisher. None required on pleasure outboard motorboats.		2 1-quart carbon tetrachloride or 2 1½-gallon foam or 2 4-pound CO_2 extinguishers.	3 1-quart carbon tetrachloride or 3 1¼-gallon foam or 3 4-pound CO_2 extinguishers.

[1] Commercial fishing motorboats may carry any of these specified devices.
[2] Commercial fishing motorboats may carry in lieu of this specified equipment prescribed wooden life floats.

purpose of identification only and the certificate of award of number which is issued to any such vessel is solely for such purpose. It is not an authorization, license, or permit for any such vessel to engage in trade.

10. The regulations issued by the Commandant under the authority of the Numbering Act require the following undocumented vessels to be numbered:

A. All boats equipped with permanently installed motors.

B. All boats over 16 feet in length equipped with detachable motors.

11. The following undocumented vessels are not required to be numbered:

A. Public vessels.

B. All boats not exceeding 16 feet in length temporarily equipped with detachable motors.

C. Motor lifeboats carried as lifesaving equipment on inspected vessels.

YACHTS ENTITLED TO DOCUMENTATION

12. The Bureau of Customs has recently extended the privilege of documentation as yachts under the navigation laws to a large class of pleasure boats theretofore excluded. The change makes possible more expeditious travel by small boats between the United States and foreign ports, and facilitates financing and transfers of title of such craft. The order affects vessels of not less than 5 net tons nor more than 15 gross tons used exclusively for pleasure. In addition, as in the past, vessels used exclusively for pleasure of more than 15 gross tons may be licensed or enrolled and licensed as yachts, if otherwise entitled to be documented.

13. Important privileges extended by documentation of vessels as yachts are:

A. Authority to fly the yacht ensign, a right highly prized by yachtsmen.

B. Right to voyage to a foreign port without clearing the vessel through United States customs.

C. In the case of yachts of 15 gross tons or less, the right to return to a port of the United States from a foreign port or ports without entering the vessel through customs.

D. Provision for recording of mortgages, bills of sale, and other instruments of title, and the keeping of permanent records thereof in the offices of collectors of customs. Mortgages which are so recorded may, upon compliance with the applicable requirements, become preferred mortgages, thus giving additional security to the mortgagee. Owners who document such vessels must effect renewals annually and must report any changes of master to a collector of customs. Requests for documentation should be made through the customhouse at or nearest the port where the vessel is located.

14. The requirements in connection with the documentation of yachts are not mandatory and it is entirely discretionary with the owner as to whether he should document his yacht. Owners who desire to have their vessels documented as yachts should consult with the nearest collector of customs. The regulations on the subject are contained in 19 CFR, part 3. However, yachts and other vessels which are not documented, which are machinery propelled, which are owned in the United States, and which are found on the navigable waters thereof must be numbered under the provisions of the Act of June 7, 1918, as amended (46 U. S. C. 288). There is no restriction as to the length, tonnage, or size of such vessels under the provisions of the Numbering Act which should not be confused with those of the Motorboat Act of 1940 (46 U. S. C. 526–526q).

APPLICATIONS AND ISSUANCE OF NUMBERS

15. The following procedures describe how to obtain a number:

A. Upon the purchase of an undocumented vessel which has been issued a certificate of award of number under the provisions of the act of June 7, 1918, as amended, and after completion of the bill of sale on the reverse side of the certificate by the vendor or the former owner, the purchaser should execute the application for number for undocumented motor vessel, which is incorporated on the reverse side of the certificate of award of number (CG 1513) and surrender the certificate, bill of sale, and application for a new number to the Officer in Charge, Marine Inspection, U. S. Coast Guard, having jurisdiction over the area in which the vessel is owned, within the statutory period of 10 days. That officer, upon receipt of the certificate with the bill of sale and application properly executed and upon being satisfied with the evidence of ownership, will assign a number to the vessel and forward the certificate and accompanying papers to the District Commander for processing. He will at the same time issue to the new owner a letter authorizing the operation of the vessel for a limited period, without the certificate of award of number on board, pending the issuance of such papers by the District Commander.

B. In the case of such vessels which are new or which have never been numbered under the provisions of the act of June 7, 1918, as amended, or which are operating under the old form of certificate of award of number, application should be made to the Officer in Charge, Marine Inspection, U. S. Coast Guard, having jurisdiction over the area in which the vessel is owned, for a certificate of award of number by presenting proper evidence of ownership such as a bill of sale, builder's certificate, etc., and by the execution of Form CG 1512, application for number for undocumented motor vessel. Upon the execution of these cards in duplicate and the presentation of evidence of ownership, the Officer in Charge, Marine Inspection, U. S. Coast Guard, will accept the application and accompanying papers, transmitting same to the District Commander for processing and will thereupon assign a number to the vessel, at the same time issuing a letter authorizing the operation of the vessel for a temporary period under the numbers assigned and pending the issuance of a certificate of award of number by the District Commander.

16. *Number required on bows of vessel.*—Upon assignment of a number by the Officer in Charge, Marine Inspection, U. S. Coast Guard, or upon receipt of the certificate of award of number, the number awarded shall be painted or attached to each bow of the vessel and shall be in block characters of good proportion and not less than 3 inches in height, reading from left to right and parallel with the waterline, as near the forward end of the bow as legibility of the entire number for surface and aerial identification permits. The number shall also be of a color in contrast with the color of the hull so as to be distinctly visible and legible.

17. *Carrying certificate of award of number.*—The certificate of award of number must be kept on board at all times (unless in the custody of the Coast Guard), except in the case of vessels not exceeding 17 feet in length, or vessels whose design or fittings are such that the carrying of such certificate on board would render it imperfect, illegible, or would otherwise tend to destroy its usefulness as a means of ready identification.

CERTAIN INSPECTION REQUIREMENTS

18. While this circular is published for the express information of owners of motorboats operated solely for pleasure or commercial fishing purposes, in view of the numerous inquiries received by the Coast Guard as to the application of the inspection laws of the United States to motorpropelled vessels, a general statement in this connection seems appropriate. Accordingly, owners and prospective

owners of motorboats and motor vessels of above 15 gross tons are advised that if such vessels carry freight or passengers for hire, they are subject to annual inspection by the U. S. Coast Guard under the provisions of R. S. 4426 (46 U. S. C. 404) and may not be navigated in such service until a certificate of inspection has been issued. Motorboats of not more than 65 feet in length, which are less than 100 gross tons, when carrying passengers for hire are only required to be operated by Coast Guard licensed operators. No other licensed officers may be required. Machinery-propelled vessels of above 15 gross tons and in excess of 65 feet in length, carrying freight or passengers for hire, must also be manned with such officers and crew as is determined by the proper Officer in Charge, Marine Inspection, U. S. Coast Guard, upon inspection of the vessel. The complement of such officers and crew is stated on the certificate of inspection. Machinery-propelled vessels of 100 gross tons, or over, generally speaking, are subject to all the provisions of the Seamen's Act of March 4, 1915, as amended. Complete information on these subjects may be obtained from any Officer in Charge, Marine Inspection, U. S. Coast Guard.

19. Further information in respect to the laws and regulations applicable to motorboats and motor vessels and advice concerning the requirements for all vessels engaged in carrying freight or passengers for hire may be obtained from any Officer in Charge, Marine Inspection, U. S. Coast Guard, or from the Commandant (MVI), U. S. Coast Guard, Washington 25, D. C.

20. Officers in Charge, Marine Inspection, U. S. Coast Guard, are located at the following ports:

Albany 1, N. Y., 313 Federal Building.
Baltimore, Md., 209 Chamber of Commerce Building.
Boston 13, Mass., 447 Commercial Street.
Buffalo 3, N. Y., 440 Federal Building.
Cairo, Ill., 425–427 New Post Office Building.
Charleston 3, S. C., 32 Customhouse.
Chicago 7, Ill., Customhouse, 610 South Canal Street.
Cincinnati 2, Ohio, 748 Federal Building.
Cleveland 15, Ohio, 1600 B. F. Keith Building, 1621 Euclid Avenue.
Corpus Christi, Tex., 919 Jones Building.
Detroit 26, Mich., 430 Federal Building.
Dubuque, Iowa, 301 Post Office and Courthouse Building.
Duluth 2, Minn., 311 Federal Building.
Galveston, Tex., 232 Customhouse.
Honolulu, T. H., P. O. Box 4010, 210 Federal Building.
Houston 11, Tex., 7300 Wingate Avenue.
Jacksonville 1, Fla., 210 Federal Building.
Juneau, Alaska, Community Building.
Long Beach 2, Calif., 1119 Times Building.
Louisville 2, Ky., 606 Federal Building.
Ludington, Mich., National Bank Building.
Memphis 3, Tenn., 322 Customhouse.
Miami 32, Fla., 501 Professional Building.
Milwaukee 2, Wis., 533 Federal Building.
Mobile 9, Ala., Box 1535, 565 Courthouse and Customhouse.
Nashville 3, Tenn., 1018 Stahlman Building.
New London, Conn., Room 302, Post Office Building.
New Orleans 16, La., 311 Customhouse, Canal Street.
New York 13, N. Y., 80 Lafayette Street.
Norfolk 1, Va., 204 Customhouse.
Oswego, N. Y., 205 Federal Building.
Philadelphia 6, Pa., 801 Customhouse, Second and Chestnut Streets.
Pittsburgh 22, Pa., 1215 Park Building.
Point Pleasant, W. Va., 103 Post Office Building.
Port Arthur, Tex., 410 Bleustein Building.
Portland 3, Maine, Room 205, 76 Pearl Street.
Portland 4, Oreg., 1005 Failing Building.
Providence 3, R. I., 409 Federal Building.
St. Ignace, Mich., Municipal Building, 396 North State Street.
St. Louis 1, Mo., 216 Old Customhouse, Eighth and Olive Streets.
San Francisco 26, Calif., 227 U. S. Appraisers Building, 630 Sansome Street.
San Juan, P. R., Federal Building.
Savannah 12, Ga., 205 Customhouse.
Seattle 4, Wash., 618 Second Avenue.
Tampa 2, Fla., 406 Federal Building.
Toledo 2, Ohio, 402 Courthouse and Customhouse.

(S) J. F. FARLEY,
Admiral, U. S. Coast Guard,
Commandant.

Equipment Approved by the Commandant

[CGFR 49–41]

By virtue of the authority vested in me as Commandant, United States Coast Guard, by R. S. 4405 and 4491, as amended; 46 U. S. C. 375, 489; and section 101 of Reorganization Plan No. 3 of 1946 (11 F. R. 7875, 60 Stat. 1097, 46 U. S. C. 1), as well as the additional authorities cited with specific items below, the following approvals of equipment are prescribed and shall be effective for a period of five years from date of publication in the FEDERAL REGISTER unless sooner canceled or suspended by proper authority:

BUOYANT CUSHIONS, NONSTANDARD

NOTE: Cushions are for use on motorboats of Classes A, 1, and 2 not carrying passengers for hire.

Approval No. 160.008/413/0, 14" x 17" x 2" rectangular buoyant cushion, 21 oz. kapok, U. S. C. G. Specification 160.008, Dwg. No. LP–1, dated September 26, 1949, manufactured by The P. R. Mitchell Co., Spring Grove and Harrison Avenues, Cincinnati 22, Ohio.

WINCHES, LIFEBOAT

Approval No. 160.015/48/0, Type A150S lifeboat winch, approved for maximum working load of 15,000 pounds pull at the drums (7500 pounds per fall), identified by general arrangement Dwg. No. 3193, dated November 10, 1947, manufactured by Welin Davit and Boat Division of Continental Copper & Steel Industries, Inc., Perth Amboy, N. J.

(R. S. 4417a, 4426, 4488, 49 Stat. 1544, 54 Stat. 346, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 367, 391a, 404, 481, 1333, 50 U. S. C. 1275; 46 CFR 37.1–5, 59.3a, 60.21, 76.15a, 94.14a)

LIFEBOATS

Approval No. 160.035/247/0, 24' x 8' x 3.75' steel, motor-propelled lifeboat without radio cabin, 40-person capacity, identified by construction and arrangement Dwg. No. 24–1–C, dated April 28, 1949, and revised July 18, 1949, manufactured by Marine Safety Equipment Corp., Point Pleasant, N. J.

Approval No. 160.035/253/0, 28' x 9.79' x 4.13', steel hand-propelled lifeboat, 75-person capacity, identified by construction and arrangement Dwg. No. 3192, dated June 14, 1949, and revised September 7, 1949, manufactured by the Welin Davit and Boat Division of Continental Copper & Steel Industries, Inc., Perth Amboy, N. J.

(R. S. 4417a, 4418, 4426, 4433, 49 Stat. 1544, 54 Stat. 346, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 367, 391a, 392, 404, 411, 1333, 50 U. S. C. 1275, 46 CFR 52.65)

VALVES, SAFETY (FOR STEAM HEATING BOILERS)

Approval No. 162.012/1/0, Consolidated Bronze pop screwed safety valve, Type 1551–M for heating boilers and unfired steam generators, maximum set pressure of 30 pounds per square inch, Dwg. No. T–6385–J, dated September 20, 1949, approved for ¾", 1", 1¼", 1½", and 2" inlet sizes, manufactured by Manning, Maxwell & Moore, Inc., Consolidated Safety Valve Division, Elias St., Bridgeport 2, Conn.

(R. S. 4417a, 4418, 4426, 4433, 49 Stat. 1544, 54 Stat. 346, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 367, 391a, 392, 404, 411, 1333, 50 U. S. C. 1275; 46 CFR 53.03–60)

Approval No. 160.035/258/0, 20' x 6.5' x 2.67' steel, oar-propelled lifeboat, 20–person capacity, identified by construction and arangement Dwg. No. 20–3, dated August 19, 1949 and revised September 9, 1949, manufactured by Marine Safety Equipment Corp., Point Pleasant, N. J.

(R. S. 4417a, 4426, 4481, 4488, 4492, 35 Stat. 428, 49 Stat. 1544, 54 Stat. 346, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 367, 391a, 396, 404, 474, 481, 490, 1333, 50 U. S. C. 1275; 46 CFR 37.1–1, 59.13, 76.16, 94.15, 113.10)

VALVES, SAFETY

Approval No. 162.001/134/0, Consolidated Bronze safety valve, Type 1551 for power boilers, 150 pounds per square inch and 300 pounds per square inch standard pressure ratings, Dwg. No. T–6385–H, dated September 20, 1949, approved for 1½" and 2" inlet sizes, manufactured by Manning, Maxwell & Moore, Inc., Consolidated Safety Valve Division, Elias St., Bridgeport 2, Conn.

VALVES, RELIEF (FOR HOT-WATER HEATING BOILERS)

Approval No. 162.013/1/0, Type No. 33 relief valve for hot-water heating boilers, maximum set pressure 30 pounds per square inch, relieving capacity 242,900 B. t. u. per hr., Dwg. No. 33, dated August 30, 1949, approved for ¾" inlet size, manufactured by McDonnell & Miller, Inc., Wrigley Building, Chicago 11, Ill.

Approval No. 162.013/2/0, Type No. 29 relief valve for hot-water heating boilers, maximum set pressure 30 pounds per square inch, relieving capacity 179,700 B. t. u. per hr., Dwg. No. 29, dated August 31, 1949, approved for 1" inlet size, manufactured by McDonnell & Miller, Inc., Wrigley Building, Chicago 11, Ill.

Approval No. 162.013/3/0, Type No. 129 relief valve for hot-water heating boilers, maximum set pressure 30 pounds per square inch, relieving capacity 291,300 B. t. u. per hr., Dwg. No. 129, dated September 1, 1949, approved for 1¼" inlet size, manufactured by McDonnell & Miller, Inc., Wrigley Building, Chicago 11, Ill.

(R. S. 4417a, 4418, 4426, 4433, 49 Stat. 1544, 54 Stat. 346, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 367, 391a, 392, 404, 411, 1333, 50 U. S. C. 1275; 46 CFR 53.03–60)

Dated: October 28, 1949.

[SEAL] J. F. FARLEY,
Admiral, U. S. Coast Guard,
Commandant.

[F. R. Doc. 49–8843; Filed, Nov. 2, 1949; 8:48 a. m., 14 F. R. 6678]

CORRECTION OF PRIOR DOCUMENT; APPROVAL OF EQUIPMENT

[CGFR 49–41]

By virtue of the authority vested in me as Commandant, United States Coast Guard, by R. S. 4405 and 4491, as amended; 46 U. S. C. 375, 489; and section 101 of Reorganization Plan No. 3 of 1946 (11 F. R. 7875, 60 Stat. 1097, 46 U. S. C. 1), the following correction of Coast Guard Document CGFR 49–41, Federal Register Document 49–8843, dated October 28, 1949, filed November 2, 1949, and published in the FEDERAL REGISTER dated November 3, 1949 (14 F. R. 6678) is prescribed and shall be effective for a period of five years from November 3, 1949, unless sooner canceled or suspended by proper authority.

VALVES, SAFETY

The "Approval No. 162.001/134/0" is changed to "Approval No. 162.001/135/0" so that the approval will read as follows:

Approval No. 162.001/135/0, Consolidated Bronze safety valve, Type 1551 for power boilers, 150 pounds per square inch and 300 pounds per square inch standard pressure ratings, Dwg. No. T–6385–H, dated September 20, 1949, approved for 1½" and 2" inlet sizes, manufactured by Manning, Maxwell & Moore, Inc., Consolidated Safety Valve Division, Elias Street, Bridgeport 2, Conn.

(R. S. 4417a, 4418, 4426, 4433, 49 Stat. 1544, 54 Stat. 346, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 367, 391a, 392, 404, 411, 1333, 50 U. S. C. 1275, 46 CFR 52.65)

Dated: November 23, 1949.

[SEAL] J. F. FARLEY,
Admiral, U. S. Coast Guard,
Commandant.

[F. R. Doc. 49–9583; Filed, Nov. 29, 1949; 8:51 a. m., 14 F. R. 7202]

WELDING ELECTRODES

The following type of electrode has been tested in accordance with the requirements of ASTM designation A233–48T for mild steel arc-welding electrodes in the presence of an American Bureau of Shipping Surveyor and the test report indicates that the requirements were met.

Alloy Rods Co., York, Pa. Alloy Rods Co. (manufacturer) Weld-Arc, type E6012.

Operating Positions and Electrode Size

The 3/32-, 1/8-, 5/32-, 3/16-inch diameter electrodes will be allowed for all position welding. The 7/32- and 1/4-inch diameter electrodes will be allowed for horizontal fillet and flat positions. The 5/16-inch diameter electrode will be allowed for flat positions.

Metal & Thermit Corp., 120 Broadway, New York 5, N. Y. Metal & Thermit Corp. (manufacturer), Murex Type D, Type E–6020.

Operating Positions and Electrode Size

The 3/32-, 1/8-, 5/32-, 3/16-, 7/32-, and 1/4-inch diameter electrodes will be allowed for horizontal fillet and flat positions. The 5/16-inch diameter electrode will be allowed for flat positions. Special limitations require direct or alternating current.

Alloy Rods Co., York, Pa. Champion Rivet Co. (manufacturer), Weld-Arc, Type E–6010.

Operating Positions and Electrode Size

The 3/32-, 1/8-, 5/32-, 3/16-inch diameter electrodes will be allowed for all position welding. The 7/32- and 1/4-inch diameter electrodes will be allowed for horizontal fillet and flat positions. The 5/16-inch diameter electrode will be allowed for flat positions.

Alloy Rods Co., York, Pa. Champion Rivet Co. (manufacturer), Weld-Arc, Type E–6011.

Operating Positions and Electrode Size

The 5/64-, 3/32-, 1/8-, 5/32-, and 3/16-inch diameter electrodes will be allowed for all position welding. The 7/32- and 1/4-inch diameter electrodes will be allowed for horizontal fillet and flat positions.

Alloy Rods Co., York, Pa. Champion Rivet Co. (manufacturer), Weld-Arc, Type E–6020.

Operating Positions and Electrode Size

The 5/32-, 3/16-, 7/32-, and 1/4-inch diameter electrodes will be allowed for

horizontal fillet and flat positions. The 5/16-inch diameter electrode will be allowed for flat positions.

Alloy Rods Co., York, Pa. Champion Rivet Co. (manufacturer), Weld-Arc, Type E–6030.

Operating Positions and Electrode Size

The 5/32-, 3/16-, 1/4-, and 5/16-inch diameter electrodes will be allowed for flat positions.

Alloy Rods Co., York, Pa. Champion Rivet Co. (manufacturer), Weld-Arc, Type E–7020.

Operating Positions and Electrode Size

The 5/32-, 3/16-, and 1/4-inch diameter electrodes will be allowed for horizontal fillet and flat positions.

ARTICLES OF SHIPS' STORES AND SUPPLIES

Articles of Ships' Stores and Supplies certificated from October 25, 1949, to November 25, 1949, inclusive, for use on board vessels in accordance with the provisions of Part 147 of the regulations governing "Explosives or Other Dangerous Articles on Board Vessels," are as follows:

West Disinfecting Co., 42–16 West Street, Long Island City 1, N. Y., Certificate No. 296, dated November 7, 1949. "West Insecticide."

West Disinfecting Co., 42–16 West Street, Long Island City 1, N. Y., Certificate No. 297, dated November 7, 1949. "Flybane (Insecticide)."

West Disinfecting Co., 42–16 West Street, Long Island City 1, N. Y., Certificate No. 298, dated November 7, 1949. "Hydrofect."

ELECTRICAL APPLIANCES

The following list supplements that published by the United States Coast Guard under date of May 15, 1943, entitled "Miscellaneous Electrical Equipment Satisfactory for Use on Merchant Vessels," as well as subsequently published lists and is for the use of Coast Guard personnel in their work of inspecting merchant vessels. Other electrical items not contained in this pamphlet and subsequent listings may also be satisfactory for marine use, but should not be so considered until the item is examined and listed by Coast Guard Headquarters. Before listings of electrical appliances are made it is necessary for the manufacturer to submit to the Commandant (MMT), United States Coast Guard Headquarters, Washington 25, D. C., duplicate copies of a detailed assembly drawing, including a material list with finishes of each corrosive part of each item.

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	
Crouse-Hinds Co., Syracuse, N. Y.:					
Floodlight, cast aluminum, type ADE, 16", watertight, 1 1,000-watt lamp maximum, cat. nos. 42741M, 42742M, 42743M, 42744M, 42932M, and 42933M, dwg. nos. 579–GH12 and 1526–BH1	X	X	X		10/5/49
Faraday Electric Corp., Adrian, Mich.:					
Horn, high intensity, nonresonated, watertight, type H-1, cat. no. 176, 115 V. A. C., type H-2, cat. no. 171, 115, and 250 V. D. C., dwg. no. Q-171000, alt. 1	X	X			11/7/49
General Electric Co., Schenectady, N. Y.:					
Floodlight, type L85, watertight, 1 1,000-watt lamp max., dwg. no. T-9462355, rev. 0	X	X	X		11/3/49
Henschel Corp., Amesbury, Mass.:					
Steering and docking telegraph transmitter-indicator, 12", single face, pedestal mounting, 115 V. 60 cycle, A. C., dwg. no. 10-1084-1, alt. 1	X	X	X		10/6/49
Steering and docking telegraph transmitter-indicator, 12", double face, pedestal mounting, 115 V. 60 cycle, A. C., dwg. no. 10-1083-2, alt. 1	X	X	X		10/6/49
Electric telegraph indicator, 16", types B and P, 115 V. 60 cycle, A. C., dwg. no. 10-1049, alt. 2	X	X			10/6/49
Electric telegraph transfer relays, 115 V. 60 cycle, A. C., dwg. no. 60-212, alt. 1	X	X			10/6/49
Automatic whistle timer reset station, 115 V. A. C. and 115 V. D. C., watertight, dwg. no. 60-209, alt. 1	X	X	X		10/26/49
Current failure alarm panel, dwg. no. 40-065, alt. 1	X	X			10/27/49
Electric telegraph indicator, 16", panel mounting, 115 V. 60 cycle, A. C., dwg. no. 10-1049-1, alt. 0	X	X			10/27/49
Electric telegraph transmitter-indicator with wrong direction signal contacts, bulkhead mounting, 16", 115 V. 60 cycle, A. C., dwg. no. 10-1047-2, alt. 0	X	X	X		10/27/49
Fuel oil high level alarm panel, 115 V. A. C., bulkhead mounted, dwg. no. 40-067, alt. 2	X	X			11/8/49
Burglar alarm panel, 115 V. D. C., bulkhead mounted, dwg. no. 40-068, alt. 1	X	X			11/8/49
Lube oil low pressure alarm panel, 115 V., A. C., dwg. no. 40-070, alt. 0	X	X			11-9-49
Fire alarm bell, 8", vibrating type, with supervising resistor, watertight, dwg. no. 20-163-3, alt. 0	X	X			11-9-49
*General alarm system relay, watertight, dwg. no. 60-168-1, alt. 0	X	X			7-25-49
*Electric engine order transmitter-indicator, 12", double-face, double-engine, pedestal mounting, 115 V., 60 cycle, A. C., dwg. no. 10-1081-1, alt. 0	X	X	X		9- 7-49
*Electric telegraph transfer relay, double, 115 V., 60 cycle A. C., dwg. 60-211, alt. 0	X	X			9- 7-49
*Tank, high or low oil level alarm contact maker, waterproof, 2 ampere, 115 V., 60 cycle, A. C., dwg. no. 60-128-2, alt. 3	X	X	X		8-26-49
*Filterette for use with shaft speed indicating system, 115 V., 60 cycle, A. C., dwg. no. 60-160, alt. 3	X	X			8- 5-49
*Steering gear alarm panel, 230 V. D. C., dwg. no. 40-064, alt. 1	X	X			7-27-49
*Whistle timer, 115 V., 60 cycle, A. C., dwg. no. 40-059, alt. 2	X	X			7-27-49
Lightcraft Corp., Jeannette, Pa.:					
Ceiling light, fluorescent, nonwatertight, for 12" diameter 32-watt lamp, 115 V., 60 cycle, A. C., cat. nos. 500 and 501, dwg. no. 1, alt. 0	X				10-26-49
Lovell-Dressel Co., Inc., Arlington, N. J.:					
Junction box, watertight, cat. no. 2064 (without cover for use with fixtures) and cat. no. 2164 (with cover), dwg. no. M-5431, alt. 0	X	X	X		10-13-49
Anchor light, watertight, cat. no. 1314, 1 50-watt lamp max., dwg. no. M-5420, alt. 0	X	X	X		10-14-49
McDonnell & Miller, Inc., Chicago, Ill.:					
Pump control and low water cut-off switch, cat. no. 154, 3/4 HP, 115–230 V., A. C., 1/4 HP, 115 V. D. C., drip-proof, 150 p. s. i. max. with bronze housing, 30 p. s. i. max. with cast iron housing, dwg. nos. MA-154, rev. 1,150-1, rev. 1, 150, rev. 10, and 154 S, rev. 0	X	X			10-26-49
Murlin Manufacturing Co., Philadelphia, Pa.:					
Mirror light, nonwatertight, 1 60-watt lamp max., dwg. no. 1355, alt. 0	X				10-27-49
Berth light, nonwatertight, 1 40-watt lamp max., dwg. no. 1251, alt. 0	X				10-27-49
Ceiling light, nonwatertight, flush mounted, 1 100-watt lamp max., dwg. no. 1375, alt. 0	X				10-27-49
Ceiling light, nonwatertight, surface mounted, 1 100-watt lamp max., dwg. no. 1375-1, alt. 0	X				10-27-49
Galley range light, watertight, 4 60-watt lamps max., dwg. no. 1352, alt. 1	X	X			11- 8-49
Desk lamp, nonwatertight, 1 60-watt lamp max., dwg. no. 1354, alt. 1	X				11- 8-49
Desk lamp, nonwatertight, 1 60-watt lamp max., dwg. no. 1356, alt. 1	X				11- 8-49

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	
Bracket fixture, nonwatertight, 1 60-watt lamp max., dwg. no. 1357, alt. 1	x				11- 8-49
Desk light, nonwatertight, 1 25-watt lamp max., dwg. no. 1359, alt. 1	x				11- 8-49
Ceiling light, nonwatertight, 1 32-watt circline fluorescent and 2 7-watt incandescent lamps, dwg. no. 1377, alt. 0	x				11- 8-49
Oceanic Electric Products Corp., New York, N. Y.: Semiautomatic navigation light panel, 115 V. D. C., for 50 or 100-watt double-filament type lamps, cat. nos. 6124 to 6129, incl., dwg. nos. 4150, alt. 1 and 4151, alt. 0	x	x			9-30-49
Pauluhn Electric Mfg. Co., Inc., New York, N. Y.: Blinker telegraph key, watertight, 115 V. D. C., cat. no. 810, dwg. no. 30, alt. 1	x	x	x		10- 5-49
*Hinged cover box for boat winch motor controllers, watertight, dwg. no. 60, alt. 0	x	x	x		7-26-49
Pelham Electric Mfg. Corp., Erie, Pa.: Power distribution panel, 2/2 wire, 110 V. A. C., 4 30-ampere max. circuits, dwg. no. 4159, alt. 1	x	x			10-21-49
Power distribution panel, 2/2 wire, 240 V. D. C., 2 225-ampere max. circuits, dwg. no. 4160, sh. 1, alt. 1; sh. 2, alt. 0	x	x			10-21-49
Power distribution panel, 2/2 wire, 240 V. D. C., 4 60-ampere max. circuits, dwg. no. 4161, sh. 1, alt. 2; sh. 2, alt. 1	x	x			10-21-49
Penn El Service Co., Philadelphia, Pa.: *Terminal tubes, male and female, sizes 1 to 15, inclusive, dwg. 1750M/1783F, rev. 8/8/49	x	x	x		8-26-49
Pilot Marine Corporation, New York, N. Y.: *Salinity indicator panel, model S3A5-2PR, dwg. nos. 652C, alt. 5, 651D, alt. 2, and 650H, alt. 5	x	x			8- 8-49
*Salinity indicator panel, model S3A10, dwg. nos. 692, alt. 2; 693, alt. 2; 650C, alt. 2; and 650D, alt. 3	x	x			8- 8-49
*Salinity indicator panel, model S3A7, dwg. nos. 652D, alt. 1; 650J, alt. 3; and 651E, alt. 2	x	x			8- 8-49
*Salinity indicator system power relay for dumping valve solenoid, model S3A1, dwg. no. 695, alt. 1	x	x			8- 8-49
*Salinity cell, valve, and receptacle assembly, dwg. no. 647D, alt. 3	x	x			8- 8-49
*Salinity indicator cell, type 7, dwg. no. 675A, alt. 4	x	x			8- 8-49
*Salinity indicator system receptacle box and plug, dwg. no. 648, alt. 2	x	x			8- 8-49
Raymond Rosen Engineering Products, Inc., Philadelphia, Pa.: *Running light indicator panel, 9 circuit, 115 V. A. C., dwg. no. 9-0062, alt. B	x	x			7-25-49
Rudd-Melikian, Inc., Philadelphia, Pa.: *Coffee dispenser for marine service, counter model, 115 V. A. C., dwg. nos. C-F-47, alt. O; C-F-48, alt. 0; B-F-46, alt. 0; and A-F-45, alt. 0	x	x			8-31-49
Russell & Stoll Co., Inc., New York, N. Y.: Switch, nonwatertight, 125-volt max, cat. no. 3161—single-pole, 10A; cat. no. 3162—double-pole, 10A; cat. no. 3163—three-way, 10A; cat. no. 3164—four-way, 5A; catalog numbers followed by suffix F, S, FL, or SL; dwg. no. F-7845, alt. 8	x				11- 9-49
Interlocked switch and receptacle, watertight, 30 amperes, 250 volts, cat. no. 1593, 2-wire, 3-pole, cat. no. 1594, 3-wire, 4-pole, dwg. no. C-6516, alt. 3	x	x	x		11- 9-49
Junction box, square, for watertight fixtures, dwg. no. C-7909, alt. 0 & B-7912, alt. 0	x	x	x		11- 9-49
* Bulkhead fixture for installation in tank vessel pump room bulkhead, watertight, cat. no. 960G, 1 100-watt lamp max., cat. no. 961G, 1 150-watt lamp max., dwg. B-7853, alt. 2	x	x	x		8-22-49
* Bulkhead fixture for installation in tank vessel pump room bulkhead with adapter assembly to convert fixture, cat. no. 950 to cat. no. 960G or 961G, watertight, dwg. no. B-7852, alt. 2	x	x	x		8-22-49
The Simes Co., College Point, L. I., N. Y.: * Ceiling fixture, nonwatertight, 1 60-watt lamp max., dwg. no. 44178, alt. 0	x				9- 2-49
* Berth light, pullman type, nonwatertight, 1 25-watt lamp max., dwg. no. 43900, rev. 2	x				8-24-49
Submarine Signal Division, Raytheon Manufacturing Co., Waltham, Mass.: Items listed in previous issues under name of Submarine Signal Co., Boston, Mass., should be transferred to the above new company name					

* These items supersede and replace corresponding items published in the October 1949, issue of Proceedings of the Merchant Marine Council.

Termination of Approval of Equipment

[CGFR 49-45]

By virtue of the authority vested in me as Commandant, United States Coast Guard, by R. S. 4405 and 4491, as amended, 46 U. S. C. 375, 489; and section 101 of Reorganization Plan No. 3 of 1946, 11 F. R. 7875, 60 Stat. 1097, 46 U. S. C. 1, as well as the additional authorities cited with specific items below, the following approvals of equipment are terminated because the items of equipment covered are no longer being manufactured:

BOILERS, HEATING

Termination of Approval No. 162.003/2/0, Model "Arco" heating boiler, cast iron sectional and round firepot construction, catalog No. 605 (revised) October 1941, maximum working pressure 15 pounds per square inch, manufactured by American Radiator & Standard Sanitary Corp., Bessemer Building, Pittsburgh 22, Pa. (Approved in FEDERAL REGISTER, December 27, 1947.)

Termination of Approval No. 162.003/42/0, Model "Ideal" heating boiler, cast iron sectional and round firepot construction, catalog No. 605 (revised) October 1941, maximum working pressure 15 pounds per square inch, manufactured by American Radiator & Standard Sanitary Corp., Bessemer Building, Pittsburgh 22, Pa. (Approved in FEDERAL REGISTER, December 27, 1947.)

(R. S. 4417a, 4418, 4426, 4433, 4434, 49 Stat. 1544, 54 Stat. 346, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 367, 391a, 392, 404, 411, 412, 1333, 50 U. S. C. 1275, 46 CFR Part 52)

CONDITIONS OF TERMINATION OF APPROVALS

The termination of approvals of equipment made by this document shall be made effective upon the thirty-first day after the date of publication of this document in the FEDERAL REGISTER. Notwithstanding this termination of approval on any item of equipment, such equipment manufactured before the effective date of termination of approval may be used on merchant vessels so long as it is in good and serviceable condition.

Dated: November 15, 1949.

[SEAL] J. F. FARLEY,
Admiral, U. S. Coast Guard,
Commandant.

[F. R. Doc. 49-9323; Filed, Nov. 18, 1949; 8:48 a. m., 14 F. R. 7014]

FUSIBLE PLUGS

The Marine Engineering Regulations and Material Specifications require that manufacturers submit samples from each heat of fusible plugs to the Commandant for test prior to plugs manufactured from the heat being used on vessels subject to inspection by the Coast Guard. A list of approved heats which have been tested and found acceptable during the period from October 15 to November 15, 1949, is as follows:

The Lunkenheimer Co., 22 Barney Street, Battle Creek, Mich. Heats Nos. 347, 348, and 349.

AFFIDAVITS

The following affidavits were accepted from October 15 to November 15, 1949:

Acme Brass and Bronze Foundry, Inc., 4317–27 North American Street, Philadelphia 40, Pa. Castings.

Barnes & Jones, Inc., 128 Brookside Avenue, Jamaica Plain 30, Mass. Valves and fittings.

The Carpenter Manufacturing Corp., 9523 Detroit Avenue, Cleveland 2, Ohio. Valves.

The Chaplin-Fulton Manufacturing Co., 38 Penn Avenue, Pittsburgh, Pa. Valves and fittings.

Crown Non Ferrous Foundry, Inc., Chester, Pa. Castings.

Merchant Marine Personnel Statistics

MERCHANT MARINE LICENSES ISSUED DURING SEPTEMBER 1949

DECK OFFICERS

		Region								Total	
		Atlantic coast		Gulf coast		Great Lakes and rivers		Pacific coast			
		O	R	O	R	O	R	O	R	O	R
Master	Ocean	15	116	7	36	0	2	12	81	34	235
	Coastwise	4	14	4	5	0	0	1	2	9	21
	Great Lakes	0	0	0	0	0	1	0	1	0	2
	B. S. & L.	5	36	3	3	0	1	2	7	10	47
	Rivers	1	7	0	5	1	17	0	0	2	29
Chief mate	Ocean	18	19	12	7	0	1	5	13	35	40
	Coastwise	0	1	0	0	0	0	1	0	1	1
Second mate	Ocean	24	25	10	6	0	4	11	16	45	51
	Coastwise	0	0	0	0	0	0	0	0	0	0
Third mate	Ocean	39	37	5	6	0	13	11	23	55	79
	Coastwise	0	0	0	0	0	0	0	0	0	0
Mate	Great Lakes	0	0	0	0	0	0	0	0	0	0
	B. S. & L.	1	6	1	0	0	0	2	2	4	8
	Rivers	0	1	0	0	8	10	0	0	8	11
Pilots	B. S. L. & R.	66	121	17	35	29	24	10	51	122	231
Master	Uninspected vessels	0	10	0	0	0	0	1	3	1	13
Mate	Uninspected vessels	0	0	0	0	0	0	0	0	0	0
Total		173	393	59	103	38	73	56	199	326	768
Grand total		566		162		111		255		1,094	

ENGINEER OFFICERS

Steam	Chief engineer:										
	Unlimited	13	97	2	36	0	6	7	67	22	206
	Limited	4	39	0	6	1	20	0	7	5	72
	First assistant engineer:										
	Unlimited	14	36	4	12	0	6	12	31	30	85
	Limited	0	1	0	0	2	2	0	2	2	5
	Second assistant engineer:										
	Unlimited	24	62	7	17	0	14	6	38	37	131
	Limited	0	0	0	0	0	0	0	0	0	0
	Third assistant engineer:										
	Unlimited	72	59	9	16	1	17	10	29	92	121
	Limited	0	0	0	0	0	0	0	0	0	0
Motor	Chief engineer:										
	Unlimited	3	19	2	7	6	0	4	20	15	46
	Limited	7	38	2	7	3	7	3	14	15	66
	First assistant engineer:										
	Unlimited	2	3	1	0	2	0	1	2	6	5
	Limited	4	3	1	1	3	2	2	0	10	6
	Second assistant engineer:										
	Unlimited	1	2	2	0	0	0	0	2	3	4
	Limited	1	0	0	0	0	0	0	0	1	0
	Third assistant engineer:										
	Unlimited	65	76	2	16	0	27	1	59	68	178
	Limited	1	0	0	0	0	0	0	0	1	0
Uninspected vessels	Chief engineer	0	2	0	0	0	0	0	0	0	2
	Assistant engineer	0	1	0	0	0	0	0	0	0	1
Total		211	438	32	118	18	101	46	271	307	928
Grand total		649		150		119		317		1,235	

MERCHANT MARINE LICENSES ISSUED DURING OCTOBER 1949

DECK OFFICERS

		Region								Total	
		Atlantic coast		Gulf coast		Great Lakes and rivers		Pacific coast			
		O	R	O	R	O	R	O	R	O	R
Master	Ocean	19	105	4	32	0	1	5	52	28	190
	Coastwise	1	7	3	3	0	0	0	2	4	12
	Great Lakes	0	0	0	0	1	3	0	0	1	3
	B. S. & L.	7	32	1	2	1	0	0	7	9	41
	Rivers	1	2	2	5	1	7	0	0	4	14
Chief mate	Ocean	20	28	5	9	0	3	6	18	31	58
	Coastwise	0	1	2	1	0	0	0	0	2	2
Second mate	Ocean	25	24	5	4	0	2	6	10	36	40
	Coastwise	0	0	0	0	0	0	0	0	0	0
Third mate	Ocean	6	40	5	9	0	5	7	10	18	64
	Coastwise	0	0	0	0	0	0	0	0	0	0
Mate	Great Lakes	0	0	0	0	0	0	0	0	0	0
	B. S. & L.	4	5	0	0	0	0	0	3	4	8
	Rivers	0	2	0	0	2	4	2	0	4	6
Pilots	B. S. L. & R.	39	84	15	25	20	21	8	34	82	164
Master	Uninspected vessels	0	6	0	0	0	0	1	5	1	11
Mate	Uninspected vessels	0	0	0	0	0	0	0	0	0	0
Total		122	336	42	90	25	46	35	141	224	613
Grand total		458		132		71		176		613	

ENGINEER OFFICERS

Steam	Chief engineer:										
	Unlimited	16	100	5	22	1	4	1	39	23	165
	Limited	3	39	0	6	1	14	0	3	4	62
	First assistant engineer:										
	Unlimited	13	26	3	6	0	2	6	19	22	53
	Limited	1	2	0	1	0	3	0	0	1	6
	Second assistant engineer:										
	Unlimited	5	58	9	18	4	13	6	26	27	115
	Limited	1	0	0	0	0	2	0	0	1	2
	Third assistant engineer:										
	Unlimited	10	56	5	8	0	19	3	26	18	109
	Limited	0	0	0	0	0	0	0	0	0	0
Motor	Chief engineer:										
	Unlimited	2	21	1	6	0	3	1	12	4	42
	Limited	11	31	2	3	0	5	4	7	17	46
	First assistant engineer:										
	Unlimited	2	5	2	0	0	0	1	1	5	6
	Limited	4	0	0	0	3	1	0	0	7	1
	Second assistant engineer:										
	Unlimited	1	4	0	0	0	0	1	2	2	6
	Limited	0	0	0	0	0	0	0	0	0	0
	Third assistant engineer:										
	Unlimited	9	67	0	15	1	26	1	36	11	144
	Limited	0	0	0	0	0	1	0	0	0	1
Uninspected vessels	Chief engineer	3	1	0	0	0	0	0	1	3	2
	Assistant engineer	0	0	0	0	0	0	2	0	2	0
Total		84	410	27	85	10	93	26	172	147	760
Grand total		494		112		103		198		907	

INVESTIGATING UNITS

Coast Guard Merchant Marine Investigating Units and Merchant Marine Details investigated a total of 433 cases during the month of September 1949. From this number, hearings resulted involving 118 officers and 315 unlicensed men. In the case of officers, 1 license was revoked, 2 were suspended, 7 were suspended with probation granted, 2 were voluntarily surrendered, 4 cases were dismissed, and 2 hearings were closed with admonition. Of the unlicensed personnel, 5 certificates were revoked, none were suspended, 21 were suspended with probation granted, 4 were voluntarily surrendered, 1 was closed with admonition, and 7 were dismissed after hearing.

ORIGINAL SEAMEN'S DOCUMENTS ISSUED MONTH OF SEPTEMBER 1949

Region	(1) Staff officer	(2) Continuous discharge book	(3) U. S. merchant mariner's documents	(4) AB any waters unlimited	(5) AB any waters 12 months	(6) AB Great Lakes 18 months	(7) AB tugs and towboats any waters	(8) AB bays and sounds[1]	(9) AB seagoing barges	(10) Lifeboat man	(11) Q. M. E. D.	(12) Radio operators	(13) Certificate of service	(14) Tankerman
Atlantic coast	42	1	555	169	68				1	340	124	7	389	3
Gulf coast	3	2	218	49	12	1				52	85	4	189	9
Pacific coast	14		180	60	31	5				179	64	3	147	3
Great Lakes and rivers	3	2	209	7	62	18				64	54	5	200	9
Total	62	6	1,162	285	173	24	0	0	1	635	327	19	925	24

[1] 12 months, vessels 500 gross tons or under not carrying passengers.

NOTE:—Columns 4 through 14 indicate endorsements made on U. S. merchant mariner's documents.

ORIGINAL SEAMEN'S DOCUMENTS ISSUED MONTH OF OCTOBER 1949

Region	(1) Staff officer	(2) Continuous discharge book	(3) U. S. merchant mariner's documents	(4) AB any waters unlimited	(5) AB any waters 12 months	(6) AB Great Lakes 18 months	(7) AB tugs and towboats any waters	(8) AB bays and sounds[1]	(9) AB seagoing barges	(10) Lifeboat man	(11) Q. M. E. D.	(12) Radio operators	(13) Certificate of service	(14) Tankerman
Atlantic coast	14	3	397	137	59	1	1			270	100	3	361	10
Gulf coast	5		99	49	6					38	30		96	9
Pacific coast	17		191	56	42	6				143	62	2	178	5
Great Lakes and rivers	2	2	180	8	53	43				42	82	1	166	15
Total	38	5	867	250	160	50	1	0	0	493	274	6	801	39

[1] 12 months, vessels 500 gross tons or under not carrying passengers.

NOTE.—Columns 4 through 14 indicate endorsements made on U. S. merchant mariner's documents.

WAIVERS OF MANNING REQUIREMENTS FROM SEPT. 1 TO SEPT. 30, 1949

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										
Gulf coast										
Pacific coast	2			1			1			2
Great Lakes	5	2	1		1		2			6
Total	7	2	1	1	1		3			8

NOTE: In addition, individual waivers were granted to permit the employment of 1 able seaman holding certificate for "any water—12 months" in excess of the 50 percent authorized by general waiver.

WAIVERS OF MANNING REQUIREMENTS FROM OCT. 1 TO OCT. 31, 1949

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	1					1				1
Gulf coast										
Pacific coast	2	1	2		1		1	1		6
Great Lakes	3		1				2			3
Total	6	1	3		1	1	3	1		10

NOTE.—In addition, individual waivers were granted to permit the employment of 1 able seaman holding certificate for "any water—12 months" in excess of the 50 percent authorized by general waiver.

INDEX FOR

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