PROCEEDINGS OF THE MERCHANT MARINE COUNCIL COAST GUARD

The printing of this publication has been approved by the Di-rector of the Bureou of the Budget, Janu-ary 14, 1955.



CG 129

Vol. 12

August 1955

ESSO LINA

7

No. 8

This copy for not less than 20 readers. PASS IT ALONG

MERCHANT MARINE COUNCIL

Proceedings of the

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. Special permission for republication, either in whole or in part, with the exception of copyrighted articles or pictures, is not required provided credit is given to the Proceedings of the Merchant Marine Council.

The Merchant Marine Council of the United States Coast Guard

VICE ADMIRAL ALFRED C. RICHMOND, USCG, Commandant

REAR ADMIBAL H. C. SHEPHEARD, USCG Chief, Office of Merchant Marine Safety, Chairman

CAPTAIN R. A. SMYTH, USCG Assistant Chief, Office of Merchant Marine Safety, Vice Chairman

REAR ADMIRAL K. K. COWART, USCG Engineer in Chief, Member

CAPTAIN I. E. ESEBIDOE, USCG Deputy Chief of Staff, Member

- CAPTAIN WILBUR C. HOGAN, USCG Chief, Port Security and Law Enforcement Division, Member
- CAPTAIN P. A. OVENDEN, USCG Chief, Merchant Vessel Inspection Division, Member
- CAPTAIN C. P. MURPHY, USCG Chief, Merchant Marine Technical Division, Member
- CAPTAIN JAMES D. CRAIK, USOG Chief, Merchant Vessel Personnel Division, Member
- COMMANDER EUGENE A. COFFIN, Jr., USCG, Executive Secretary and Member
- Mr. K. S. HARRISON, Chief Counsel

For each meeting two District Commanders and three Marine Inspection Officers are designated as members by the Commandant.

CONTENTS

EATURES	Page
XXX XXX XXX DH Medico	131
Side Lights on the Rules	135
Service Records of Merchant Seamen	136
Nautical Queries	137
Marmer Ship Safety	120
ESSONS FROM CASUALTIES	
Boiler Troubles-1863	139
Combustible Panels	139
Rescue by Raft	141
PPENDIX	
Amendments to Regulations	144
Equipment Approved by the Commandant	147
Articles of Ships' Stores and Supplies	147

FRONT COVER

A picture of the SS *Esso Lima*, new 17,061 gross ton tanker, owned by Esso Shipping Company. This photograph courtesy of National Geographic Society.

DISTRIBUTION (SDL 61)

A: a aa b c d dd (2); remainder (1). B: e (35); c (16); f (4); h (3); g (2); remainder (1). C: a b c d e f g i m o (1). D: i (5); a b c d e f g h j k l m (1). List 141 M.

List 111.

"The sea is not merely the world's broad highroad, but . . . the fount eternal of national existence."

-L'Italia sul Mare

"If you would know the age of the earth, look upon the sea in a storm. The greyness of the whole immense surface, the wind furrows upon the faces of the waves, the great masses of foam, tossed about and waving, like matted white locks, give to the sea in a gale an appearance of hoary age, lustreless, dull, without gleams, as though it had been created before light itself." —Joseph Conrad, from The Mirror of the Sea.

"Man has been building watercraft since he discovered the buoyancy of wood. Undoubtedly the first voyage was made on a floating log. Several logs lashed together made a raft. A log hollowed out by burning and scraping gained in buoyancy as its weight was reduced. When its ends were rounded off, it became easier to propel and handier underway.

"Ships became broader, bigger, and longer in order to carry people and commerce. Some types such as the Viking ships and the clipper ships were noted for their speed and beauty as well as their utility. Naval architecture today is a science as well as an art and is integrated with economics to produce commercial vessels suited to their particular tasks."

-Ships of America's Merchant Fleet (Maritime Administration)

August 1955

A LTHOUGH United States merchant ships sail the seven seas and are usually hundreds of miles from land, they are always able to get expert medical advice in a matter of a few minutes—thanks to the United States Public Health Service and the MEDICO program.

MEDICO which means "medical advice by radio" is a service furnished on a 24-hour basis by U. S. Public Health Service doctors to ships requesting advice. This service was inaugurated in the United States in 1921 and since that time has furnished medical advice in thousands of cases, thereby saving the lives of many merchant seamen. In 1953, for example, 2,011 MEDICOS were handled by the U. S. Public Health Service.

This system of furnishing medical advice was soon adopted by other nations and is now international in scope. The U. S. Public Health Service will furnish information to foreign vessels, and U. S. vessels can obtain similar assistance from foreign countries. A list of these countries, their stations, frequencies and watch hours, can be found in H. O. 205 "Radio Navigational Aids."

So that language difficulties may be avoided when a ship requests information from a foreign country, a code has been provided by international agreement. This code can be found in H. O. 88 "International Code of Signals, 1931: Volume II." This volume also contains a sample message and gives the nature of the information which should be included in any request for medical advice.

An unusual example of how this system works occurred in the Carribean aboard the Italian SS Sarwaro.1 When scarcely 24 hours out of port, a mysterious malady suddenly struck the crew. Within a few hours 19 men were covered with a red rash and suffered from an intolerable itch. The Captain searched his medical manual but could not determine what caused the itching. The manual did prescribe zinc ointment as a general remedy but its use gave no relief. The Captain then prescribed epsom salt baths-still no improvement.

By this time the tanker was 30 hours out of port and 25 men, more than half of the crew, were afflicted. Realizing he had to do something, the Captain radioed a request for medical advice to the Medical Institute in

¹Reported in the Nautical Magazine-May 1955. Rome, Italy. As the ship plowed through the Atlantic, the Institute's questions were answered—no ticks, no lice, drinking water pure, sanitary conditions good—still no clues.

"We are unable to assist you at the moment," the Institute radioed back, "stand by until we can contact a specialist in tropical diseases."

While they waited, the itch struck four more men and unrest spread among the crew. A spokesman approached the Captain and demanded the ship put back to port.

Just 2 hours later Rome came back on the air with the scientist standing by. The Captain described the symptoms in detail. "I want you to tell me everything that happened while your ship was in port," the scientist replied. Suddenly the Captain remembered the butterflies! "Tell him about the butterflies." Hurriedly the radio operator tapped out the message—"the day before we sailed, millions of butterflies settled on the ship..." The Captain, as best he could, described the butterflies.

Almost immediately the scientist replied:

"Those butterflies carry poison on their wings, a poison that settles in the pores and causes an irritating rash. Keep the rash moist with oil; relieve the itch by rubbing alcohol into the skin and dust with talcum powder."

He instructed the Captain to report back if there was a change in the crew's condition.

Two days later the radio operator sent this message to Rome: "All hands are completely cured. Thank you."

In the event the Captain of an American merchant ship desires to radio for medical advice, there are four books that set forth, in detail, the correct procedure. These are, or should be, available on every United States flag vessel, i. e., H. O. 205 "Radio Navigational Aids," H. O. 88 "International Code of Signals", "The Ship's Medicine Chest and First Aid at Sea,"² and "List of Special Service Stations," an International Telecommunication Union Publication.

RADIO STATIONS

In addition to the commercial radio stations listed in H. O. 205 that will handle MEDICOS, all Coast Guard radio stations (also listed in H. O. 205) are also available for this service. Each Coast Guard station has prearranged direct communication to a U. S. Public Health Service Hospital, for the rapid handling of MEDICO messages.

The calls should be made direct to the nearest station if its call sign is known. If the call sign is not known, the general Coast Guard call NCG (any Coast Guard radio station) should be used. The use of CQ for medical messages is discouraged.

The frequencies to be used for MEDICOS in calling Coast Guard and other radio stations are 500 kc. (A1 A2) and for ships, yachts or fishing boats equipped with radio-telephone, 2182 kc. or 2670 kc. (A3). If a vessel is unable to establish communication on 500 kc., due to extreme range, the 8 megacycle calling band (8354-8374 kc.) should be used. The Coast Guard maintains a listening station on all of these frequencies.

Ocean station vessels frequently have U. S. Public Health Service medical officers aboard and will reply to MEDICOS. These vessels maintain a continuous guard on 500 kc. and that frequency should be used by merchant vessels when calling ocean stations.

The assigned geographical positions of these ocean station vessels are as follows:

Atlantic Ocean Station Bravo 56-30N 51-00W

Atlantic Ocean Station Coca 52-45N 35-30W

Atlantic Ocean Station Delta 44-00N 41-00W

Atlantic Ocean Station Echo 35-00N 48-00W

Pacific Ocean Station Nan 30-00N 140-00W

Pacific Ocean Station Victor 34-00N 164-00E

SAMPLE MESSAGE

Requests for medical advice of an urgent nature should be preceded by the urgent signal (XXX XXX XXX) in order to give them priority over other radio traffic except distress communications. If the request is sent to a United States station, the message should also be prefixed by "DH MEDICO".

Captains should carefully follow the outline for preparation of a MEDICO given in "The Ship's Medicine Chest and First Aid at Sea." Failure to include certain data could lead to a faulty diagnosis.

The following is a sample radio message:

² This publication has been recently revlsed by the U. S. Public Health Service and may be obtained from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C., at \$3.50 a copy.

- XXX XXX XXX DH MEDICO From: Master, SS Historic Victory, Latitude 42 N., Longitude 50 W., destination — Liverpool, England, estimated speed, 15 knots.
- To: Medical Officer-in-Charge, U. S. Public Health Hospital, Stapleton, Staten Island, New York.

Request advice concerning male patient 37 years old, bedridden, conscious, speech understandable. Respiration rate 36 p. m., quiet, labored, pain in right side of chest. Pulse rate 130 p.m., regular, and strong. Oral temperature 103.8° F. There is severe sharp pain in lower right side of the chest which is confined to an area about 6 inches square. Pain is continuous but is aggravated by breathing and coughing. Patient has been sick for 2 hours but had a cold for the past week. Onset of the illness was sudden: patient has had no previous attack of this type. No other cases aboard. Patient had malaria 3 years ago. Does not take medicines habitually. Principal complaint is pain in the chest; in addition, had severe chill, coughs frequently, raising small amount of sputum containing streaks of blood. Patient feels very sick. Has been put to bed but no other treatment given.

ADDITIONAL ASSISTANCE

As in other fields the United State's provides additional assistance in cases of MEDICOS, such as the removal of the patient by a Coast Guard vessel or plane or an air drop of medicine to the ship.⁸

Either of these procedures are originated by a MEDICO message. The recommendation that a patient should be removed by plane is made only by the U. S. Public Health Service medical officer handling the case. The Coast Guard has no part in making this recommendation. However, once such a recommendation is made, it is the Coast Guard's prerogative to decide whether such a mercy flight is feasible—taking into consideration the availability of planes, weather,

³ In many cases where the U.S. Public Health Service recommends removal of a seaman, it is more advantageous to order a cutter to rendezvous with the ship. Only in cases where time is of the utmost importance is an airplane used in lieu of a cutter. In the North Atlantic there are 4 ocean-station vessels and in the Pacific 2 ocean-station vessels, all of which usually have a medical officer aboard. These cutters are ready on a minute's notice to proceed to intercept a merchant vessel and either remove the patient or place a doctor on board. In addition to these cutters there are numerous others stationed along the Atlantic and Pacific seaboard which are also ready to proceed in response to a MEDICO.

distance to be covered, fuel capacity limitations, etc. Needless to say, when feasible, the mercy flight is made, and hundreds of such flights are made every year.

For offshore missions (over 50 miles at sea) the P5M-Martin Marlin Seaplane, the PBM-Martin Mariner Seaplane or the UF-Grumman Amphibian is used (see fig. 1). For missions along the coast, helicopters are used very successfully.

When the decision is made to send a plane out, either to drop medicine or take off a seaman, the merchant ship will be advised by radio (500 kc.).

In order to effectuate a rendezvous at the earliest possible moment, it is desirable that the ship's course be diverted in the direction of the ship or plane's approach. The Captain can do several other things to assist in a successful operation. The rescue craft will attempt to establish radio contact with the ship, as soon as possible, on 500 kc., or, if the vessel is equipped with radio-telephone, on 2182 kc. In the event communications cannot be established directly between the rescue craft and the ship, such communication will be carried on via a Coast Guard shore radio station on these same frequencies.

In many MEDICO cases it has been found that it was difficult to reestablish communication with the ship following the initial exchange of messages. It is recognized that on many ships there is only one radio operator and he cannot be expected to stand 24-hour watches, however, the Captain can insure a ready means of contact by instructing the radio operator to set up a pre-arranged schedule when the MEDICO is first originated. A typical schedule would be for the operator to listen on the 500 kc. band the first 5 minutes of every second hour.

It is possible that the rescue craft may request a homing signal on a designated frequency. Such a CW signal should consist of two 10-second dashes followed by the ship's call sign. If radio-telephone is being used, the microphone button should be pressed for two 10-second intervals followed with the voice announcement of the call sign. This procedure should be continued for as long a period as the aircraft requires. *Example:*

WEDI (repeat) The radar should be set at maximum range and when the rescue craft is observed on the radar scope it should then be advised of the heading to take (vector) in order to rendezvous with the vessel. Example:

Vector 284 True 1410Z

WIND AND SEA

In addition to expediting a rendezvous, there is other information that is needed to assist the pilot in landing, as follows:

 Give him the force and direction of the surface wind. Use de-(Continued on page 143)



Figure 1. A Martin Marlin seaplane (P5M-1G) is shown practicing stall landings in a technique similar to that which would be used in an open sea landing. Approach was made at 70 knots with power; touchdown point selected and the aircraft stalled onto the water, using full reverse pitch immediately upon water contact. The photograph was taken at the instant of full reverse pitch. Run-out was estimated at 400 feet. Photograph by Wilbur Pilsbury of Independent Photo.

OFFICIAL LOGBOOKS

ONE of the most important of the many duties of a Merchant Marine Master is to properly maintain the ship's log. Down through centuries of seafaring, this log has been accorded an important place among official documents and historically has been vested with inherent powers and authority found in few other documents.

The United States Admiralty Courts have always recognized the status of this document, and as early as 1878 certain laws were enacted setting forth statutory requirements that had to be met before a log entry hecame a legal entity. (Title 46 U. S. C. 201, 202, 203, and 703)

In addition to these requirements for a method of entry, the law also requires that certain entries be made in the official logbook of passenger, tank, cargo, and miscellaneous ves-These requirements can be sels. found under Title 46 of the Code of Federal Regulations.

Nevertheless, over a period of time. it has become evident that many Masters are not properly maintaining their ship's official log. Whether this failure is due to indifference or lack of knowledge of the legal requirements, it defeats the purpose for which the official log is intended.

During the month of April 1955 in the port of New York, the Shipping Commissioner's Office had occasion to examine the logbooks of 140 vessels, and the following statistics were compiled:

- (a) 43 (30.07%) Contained errors.
- (b) 21 (15.0%) Had insufficient number of fire and boat drills. (c) 22 (15.01%) Failed to prop-
- erly enter the required details of fire and boat drills actually held.

(d) 11 (7.08%) Did not correctly enter the load line data.

- (e) 34 (24.02%) Failed to log opening and closing of hatches and other openings.
- (f) 23 (16.06%) Did not log presailing tests of whistle, steering gear, etc.
- (g) 19 (13.05%) Had no entries regarding weekly tests of emergency lighting and power equipment.

As a result of this survey and informal discussions with the Masters involved, it appears that the present

form of the official logbook could be improved. Coast Guard field offices have been requested to compile and forward to Coast Guard Headquarters recommended changes to this official logbook.

Since, in the final analysis it is the Merchant Marine Master that will be using the revised logbook, suggested changes and recommendations from this group is most desired. Accordingly, Masters, Marine Superintendents, and any other interested parties are invited to comment on a proposed revision of the official logbook. These comments should be addressed to the Commandant (MVP), U. S. C. G., Washington 25. D. C.

For those Masters of passenger vessels who do not have on board the Regulations covering the requirements for logbook entries, the following pertinent excerpts have been taken from Title 46 CFR 78.37. It will be noted that these regulations may be found on page 124 of CG-256, entitled "Rules and Regulations for Passenger Vessels,"1 and state as follows:

78.37 LOGBOOK ENTRIES

78.37-1 Application 78.37-1 (a) Except as specifically noted, the provisions of this subpart shall apply to all vessels other than motorboats. and to all motorboats on an international vovage.

78.37-3 Logbooks and records

78.37-3 (a) Under the various statutes, vessels engaged in all trades with the exception of vessels engaged exclusively in trade on rivers of the United States, are required to maintain an Official Logbook. The Official Logbook, which is furnished gratuitously to Masters of all vessels by the Coast Guard, shall be used in making entries required by this subchapter in the case of vessels making foreign or intercoastal voyages. On other vessels, this logbook, or any other form which represents the Official Logbook, may be used for this purpose. With respect to vessels in this latter category, the Official Logbook shall be available for review by the inspector for a period of at least 1 year after the date to which the records refer.

78.37-5 Actions required to be logged 78.37-5 (a) The actions and observations noted in this section shall be entered in the Official Logbook. This section contains no requirements which are not made in other portions of this subchapter, the items being merely grouped together for convenience.

78.37-5 (a) (1) Fire and Boat Drills: Weekly. See section 78.17-50.

78.37-5 (a) (2) Watertight door operation: Daily and Weekly. See section 78.17-1.

78.37-5 (a) (3) Valve and closing appliance operation: Weekly. See section 78.17-5.

78.37-5 (a) (4) Loudspeaker system: Weekly. See section 78.17-10.

78.37-5 (a) (5) Steering gear, whistle. and means of communication: Prior to departure. See section 78.17-15.

78.37-5 (a) (6) Drafts and load line markings: Prior to leaving port, ocean. coastwise, and Great Lakes services only. See section 78.17-20.

78.37-5 (a) (7) Hatches and other openings: All openings and closings, or leaving port without closing, except vessels on protected waters. See section 78.17-35.

78.37-5 (a) (8) Line-throwing appliances: Once every 3 months. See section 78.17-40.

78.37-5 (a) (9) Emergency lighting and power systems: Weekly and semiannually. See section 78.17-45.

78.37-5 (a) (10) Electric power op-erated lifeboat winches: Once every 3 months. See section 78.17-55. 78.37-5 (a) (11) Smoke Detecting

System: Once every 3 months. See section 78.17-65.

78.37-5 (a) (12) Fuel Oil Data: Upon receipt of fuel oil on board. See section 78 17-75

78.37-10 Official log entries

78.37-10 (a) In addition to other items required to be entered into the Official Logbook, on vessels where an Official Logbook is required, all items relative to the crew and passengers and to casualties shall be entered as required by R. S. 4290, as amended (46 U. S. C. 201).

Similarly, 46 CFR 97.35, which may be found on page 70 of CG-257, entitled "Rules and Regulation for Cargo and Miscellaneous Vessels," states: 1

97.35 LOGBOOK ENTRIES

97.35-1 Application 97.35-1 (a) Except as specifically noted, the provisions of this subpart shall apply to all vessels other than motorboats and to all motorboats on an international voyage.

97.35-3 Logbooks and records

97.35-3 (a) Under the various statutes, vessels engaged in all trades, with the exception of vessels engaged exclusively in trade on rivers of the United States, are required to maintain an Official Logbook. The Official Logbook. which is furnished gratuitously to Masters of all vessels by the Coast Guard. shall be used in making the entries required by this subchapter in the case of vessels making foreign or intercoastal voyages. On other vessels, this logbook, or any other form which represents the Official Logbook, may be used for this purpose. With respect to vessels in this latter category, the Official Logbook shall be available for review by the inspector for a period of at least 1 year after the date to which such records refer.

97.35-5 Actions required to be logged 97.35-5 (a) The actions and observations noted in this section shall be entered in the Official Logbook. This section contains no requirements which are

¹ EDITOR'S NOTE: The publications CG-256, CG-257 and CG-123 may be obtained from the Officer-in-Charge, Marine Inspection, U. S. Coast Guard, at any U. S. port.

not made in other portions of this subchapter, the items being merely grouped together for convenience.

97.35-5 (a) (1) Fire and Boat Drills, Weekly. See section 47.15-35.

97.35-5 (a) (2) Steering gear, Whistle, and Means of Communication. Prior to departure. See section 97.15-3. 97.35-5 (a) (3) Drafts and Load Line Markings. Prior to leaving port, ocean, coastwise, and Great Lakes services only. See section 97.15-5.

97.35-5 (a) (4) Hatches and other openings. All openings and closings, or leaving port without closing. Except vessels on protected waters. See section 97.15-20.

97.35-5 (a) (5) Line Throwing Appliances. Once every 3 months. See section 97.15-25.

97.35-5 (a) (6) Emergency Lighting and Power Systems. Weekly and semiannually. See section 97.15-30.

97.35-5 (a) (7) Electric Power Operated Lifeboat Winches. Once every 3 months. See section 97.17-40.

97.35–10 Official log entries

97.35-10 (a) In addition to other items required to be entered into the Official Logbook, on vessels where an Official Logbook is required, all items relative to the crew and passengers and to cusualities shall be entered as required by R. S. 4290, as amended, 46 U. S. O. 201.

Insofar as tank vessels are concerned, the regulations may be found on pages 66–71, inclusive, of CG-123, entitled "Rules and Regulations for Tank Vessels," as follows:¹

35.01-1 Inspection prior to making repairs involving riveting, welding, burning, etc.—TB/ALL. (a) Riveting, welding, burning or like fire-producing operations shall not be undertaken within or on the boundaries of bulk cargo spaces or in spaces adjacent thereto, until an inspection has been made to determine that such operations can be undertaken with safety.

(b) Such inspection shall be made and evidenced as follows:

(1) When in a port in the continental United States, this inspection shall be made by a gas chemist certificated by the American Bureau of Shipping; however, if the services of such certified gas chemist are not reasonably available, the marine inspector, upon recommendation of the vessel owner and his contractor, or their representatives, shall select a person who, in the case of an individual vessel, shall be authorized to make the inspection. If the inspection indicates that such operations can be undertaken with safety, a certificate setting forth that fact in writing and qualified as may be required shall be issued by the



certified gas chemist or the authorized person before the work is started.

(2) When not in such a port, this inspection shall be made by the senior officer present, who shall make an appropriate entry in the tank vessel's logbook. 35.10-1 Station bills, muster lists, and line-throwing appliance drills—T/ALL.

line-throwing appliance drills—T/ALL. (c) The Master of a tank ship equipped with a line-carrying gun shall drill his crew in its use every 3 months, but the actual firing of the gun on the tank ship shall be discretionary with the Master. Each drill shall be recorded in the ship's logbook.

35.10-5 Emergency signals; fire and lifeboat drills-T/ALL.

(d) It shall be the duty of the Master, or the mate, or officer next in command, once at least in each week, to call all hands to quarters and exercise them in discipline, and (weather permitting), in the unlashing and swinging out of the lifeboats, the closing of all hand or power-operated watertight doors which are in use at sea, closing all fire doors and fire screens, the use of fire pumps, and all other apparatus for the safety of life on board of such vessels with special regard for the drill of the crew in the method of adjusting life preservers, and to see that all the equipments required by law are in complete working order for immediate use. The fact of exercise of the crew as herein contemplated, shall be entered upon the ship's logbook.

(f) The entries in the ship's logbook relating to the exercise of the crew in fire and lifeboat drills shall state the day of the month and the hour when so exercised, length of time of the drill, number of the lifeboats swung out, number of lengths of fire hose used and a statement of the condition of all fire and lifesaving apparatus.

(g) Any neglect or omission on the part of the officer in command of such vessels to strictly enforce the provisions of this section shall be deemed cause for proceedings under the provisions of R. S. 4450, as amended (46 U. S. C. 239), looking to a suspension or revocation of the license of such officer.

35.20-5 Draft of tank ships—T/OC. The Master of every tank ship shall, whenever leaving port, enter the maximum draft of his vessel in the logbook.

35.20-10 Steering gear test—T/ALL. On all tank ships making voyages of more than 48 hours' duration, the entire steering gear, the whistle, the means of communication, and the signaling appliances between the bridge or pilothouse and engineroom shall be examined and tested by a licensed officer of the vessel within a period of not more than 12 hours before leaving port. All such vessels making voyages of less than 48 hours' duration or operating on lakes, bays, sounds, and rivers shall be so examined and tested at least once in every week. The fact and time of such examination and test shall be recorded in the ship's logbook.

35.25-10 Requirements for fuel oil-T/ALL.

(b) It shall be the duty of the Chief Engineer to make an entry in the log of each supply of fuel oil received on board, stating the quantity received, the name of the vendor, and the flash point (closed cup test) for which it is certified by the vendor.

TRADITIONS OF THE SEA

The roll of American Seafarers who have performed their duties in an outstanding and meritorious manner in accordance with highest traditions of the sea is long but never completed. A group of seafarers recently added to this honored list were members of the crew of the American ship SS Helen Lykes, Capt. Clement Hunter in command. They are as follows: Stanley Parham, chief mate; Charles R. Sherburne, first assistant engineer; Harold K. Henderson, electrician; L. V. Carrington, deck maintenance; Alfonsas E. Remeika, William T. Powery and Hugh T. Simpson, able seamen; Pedro Oliver, oiler; Mervin E. Worth and Domingo S. Oquendo, ordinary seamen.

The aforementioned men were members of the boat crew which successfully rescued seven survivors of a seagoing tug in the Gulf of Mexico, last December 1954.

On April 28, 1955, in ceremonies held aboard the *Helen Lykes*, in the Port of New Orleans, the 1954 Annual Ship Safety Award for Cargo Ships was presented to the Master. This award is jointly sponsored by the Marine Section of the National Safety Council and the American Merchant Marine Institute.

The citation which accompanied the award set forth the particulars of the rescue, as follows:

> On December 6, 1954, the sea-going tug *Berthta R*, while towing a heavily laden barge in the Gulf of Mexico sunk in heavy weather.

The SS Helen Lykes was approximately 130 miles from the scene en route to New Orleans when she received word of the disaster. She immediately altered course, increased speed and headed for the scene.

After an extensive search by Coast Guard vessels and search planes and other vessels, the *Helen Lykes* with lookouts fore and aft, finally spotted the two small liferafts. Within a few minutes a lifeboat was launched and in spite of high heavy seas the seven survivors were removed from the rafts—the other four having perished before aid arrived.

The manner in which this ship responded to an SOS and successfully rescued scafarers in distress was in keeping with the highest traditions of the United States Merchant Marine.



In this, the 21st, article in the Side Lights on the Rules series, we shall continue the comparison of the International Rules with the local rules applicable to Inland Waters, the Western Rivers, and the Great Lakes by turning to Rule 26; International Rules, which modifies the basic steering and sailing Rules for vessels meeting, crossing, or overtaking each other.

Rule 26, International Rules, states:

Rule 26. All vessels not engaged in fishing shall, when under way, keep out of the way of any vessels fishing with nets or lines or trawls. This Rule shall not give to any vessel engaged in fishing the right of obstructing a fairway used by vessels other than fishing vessels.

The meaning of the rule is more complete when considered in relation to Rules 9, 21, 22, 23, 28 (a), and 28 (b), International Rules, which provide that:

Rule 9. (a) Fishing vessels when not fishing shall show the lights or shapes prescribed for similar vessels of their tonnage. When fishing they shall show only the lights or shapes prescribed by this Rule, which lights or shapes, except as otherwise provided, shall be visible at a distance of at least 2 miles.

(b) Vessels fishing with trolling (towing) lines, shall show only the lights prescribed for a power-driven or sailing vessel under way as may be appropriate.

(c) Vessels fishing with nets or lines. except trolling (towing) lines, extending from the vessel not more than 500 feet horizontally into the seaway shall show, where it can best be seen, one all round white light and in addition, on approaching or being approached by another vessel, shall show a second white light at least 6 feet below the first light and at a horizontal distance of at least 10 feet away from it (6 feet in small open boats) in the direction in which the outlying gear is attached. By day such vessels shall indicate their occupation by displaying a basket where it can best be seen; and if they have their gear out while at anchor, they shall, on the approach of other vessels, show the same signal in the direction from the anchor ball towards the net or gear.

(d) Vessels fishing with nets or lines, except trolling (towing) lines, extending from the vessel more than 500 feet horizontally into the seaway shall show, where they can best be seen, three white lights at least 3 feet apart in a vertical triangle visible all around the horizon. When making way through the water, such vessels shall show the proper coloured sidelights but when not making way they shall not show them. By day they shall show a basket in the forepart of the vessel as near the stem as possible not less than 10 feet above the rall; and, in addition, where it can best be seen, one black conical shape, apex upwards. If they have their gear out while at anchor they shall, on the approach of other vessels, show the basket in the direction from the anchor ball towards the net or gear.

(e) Vessels when engaged in trawling, by which is meant the dragging of a dredge net or other apparatus along or near the bottom of the sea, and not at anchor:

IT IS SUGGESTED THE READER REFER TO CG-169, "RULES TO PREVENT COL-LISIONS OF VESSELS AND PILOT RULES. FOR CERTAIN INLAND WATERS OF THE ATLANTIC AND PACIFIC COASTS AND OF THE COAST OF THE GULF OF MEXICO :" CG-172, "PILOT RULES FOR THE GREAT LAKES AND THEIR CONNECTING AND TRIBUTARY WATERS AND THE ST ... MARYS RIVER;" AND CG-184, "PILOT RULES FOR THE WESTERN RIVERS AND THE RED RIVER OF THE NORTH :" WHICH CONTAIN THE LOCAL RULES. TO PREVENT COLLISIONS BETWEEN VESSELS ON THE LOCAL WATERS OF THE UNITED STATES. REFERENCES TO RULES AND ARTICLES THROUGHOUT THIS SERIES MAY BE FOUND THEREIN.

(i) If power-driven vessels, shall carry in the same position as the white light mentioned in Rule 2 (a) (i) a tri-coloured lantern, so constructed and fixed as to show a white light from right ahead to 2 points $(22\frac{1}{2}$ degrees) on each bow, and a green light and a red light over an arc of the horizon from 2 points (221/2 degrees) on each bow to 2 points (221/2 degrees) abaft the beam on the starboard and port sides, respectively; and not less than 6 nor more than 12 feet below the tricoloured lantern a white light in a lantern, so constructed as to show a clear, uniform, and unbroken light all round the horizon. They shall also show the stern light specified in Rule 10 (a).

(ii) If sailing vessels, shall carry a white light in a lantern so constructed as to show a clear, uniform, and unbroken light all round the horizon, and shall also, on the approach of or to other vessels show, where it can best be seeu, a white flare-up light in sufficient time to prevent collision.

(iii) By day, each of the foregoing vessels shall show, where it can best be seen, a basket.

(f) In addition to the lights which they are by this Rule required to show vessels fishing may, if necessary in order to attract attention of approaching vessels, show a fiare-up light. They may also use working lights.

(g) Every vessel fishing, when at anchor, shall show the lights or shape specified in Rule 11 (a). (b) or (c); and shall, on the approach of another vessel another vessels, show an additional white light at least 6 feet below the forward anchor light and at a horizontal distance of at least 10 feet away from it in the direction of the outlying gear.

(h) If a vessel when fishing becomes fast by her gear to a rock or other obstruction she shall in daytime haul down the basket required by sectious (c), (d) or (e) and show the signal specified in Rule 11 (c). By night she shall show the light or lights specified in Rule 11 (a) or (b). In fog, mist, falling snow, heavy rainstorms or any other condition similarly restricting visibility, whether by day or by night, she shall sound the signal prescribed by Rule 15 (c) (\forall), which signal shall also be used, on the near approach of another vessel, in good visibility.

Rule 21. Where by any of these Rules one of two vessels is to keep out of the way, the other shall keep her course and speed. When, from any cause the latter vessel finds herself so close that collision cannot be avoided by the action of the giving-way vessel alone, she also shall take such action as will best aid to avert collision (see Rules 27 and 29).

Rule 22. Every vessel which is directed by these Rules to keep out of the way of another vessel shall, if the circumstances of the case admit, avoid crossing ahead of the other.

Rule 23. Every power-driven vessel which is directed by these Rules to keep out of the way of another vessel shall, on approaching her, if necessary, slacken her speed or stop or reverse.

Rule 28. (a) When vessels are in sight of one another, a power-driven vessel under way, in taking any course authorised or required by these Rules, shall indicate that course by the following signals on her whistle, namely:—

One short blast to mean "I am altering my course to starboard."

Two short blasts to mean "I am altering my course to port."

Three short blasts to mean "My engines are going astern."

(b) Whenever a power-driven vessel which, under these Rules, is to keep her course and speed, is in sight of another vessel and is in doubt whether sufficient action is being taken by the other vessel to avert collision, she may indicate such doubt by giving at least five short and rapid blasts on the whistle. The giving of such a signal shall not relieve a vessel of her obligations under Rules 27 and 29 or any other Rule, or of her duty to indicate any action taken under these Rules by giving the appropriate sound signals laid down in this Rule.

Under the quoted wording of Rules 26, 9, 21, 22, 23, 28 (a), and 28 (b). International Rules, a vessel engaged in fishing must display appropriate lights and shapes to inform ap-proaching vessels of her occupation; hold course and speed when there is risk of collision; and if power-driven. maintain whistle silence, except when it appears the approaching vessel is not taking sufficient or timely action to avert collision. The approaching vessel, on the other hand, must avoid crossing ahead of the vessel fishing: if necessary, slow down, stop, reverse, or change course when there is risk of collision; and, if power-driven, accompany each maneuver with the appropriate one-two-or-three blast signal.

Art. 26, Inland Rules, is equivalent to Rule 26, International Rules. However, it is limited to sailing vessels.

Art. 26. Sailing vessels under way shall keep out of the way of sailing vessels or boats fishing with nets, lines, or trawls. This rule shall not give to any vessel or boat engaged in fishing the right of obstructing a fairway used by vessels other than fishing vessels or boats.

Being limited to sailing vessels, it is supported only by Arts. 9, 21, and 22, Inland Rules, and Sec. 80.32a, Pilot Rules for Inland Waters:

Art 9. (a) Fishing vessels of less than ten gross tons, when under way and when



Courtesy Maritime Reporter

not having their nets, trawls, dredges, or lines in the water, shall not be obliged to carry the colored side lights; but every such vessel shall, in lieu thereof, have ready at hand a lantern with a green glass on one side and a red glass on the other side, and on approaching to or being approached by another vessel such lantern shall be exhibited in sufficient time to prevent collision, so that the green light shall not be seen on the port side nor the red light on the starboard side.

(b) All fishing vessels and fishing boats of ten gross tons or upward, when under way and when not having their nets, trawls, dredges, or lines in the water, shall carry and show the same lights as other vessels under way.

(c) All vessels, when trawling, dredging, or fishing with any kind of drag nets or lines, shall exhibit, from some part of the vessel where they can be best seen, two lights. One of these lights shall be red and the other shall be white. The red light shall be above the white light, and shall be at a vertical distance from it of not less than six feet and not more than twelve feet: and the horizontal distance between them, if any, shall not be more than ten feet. These two lights shall be of such a character and contained in lanterns of such construction as to be visible all around the horizon, the white light a distance of not less than three miles and the red light of not less than two miles.

80.32a Day marks for fishing vessels with gear out.—All vessels or boats fishing with nets or lines or trawls, when under way, shall in daytime indicate their occupation to an approaching vessel by displaying a basket where it can best be seen. If vessels or boats at anchor have their gear out, they shall, on the approach of other vessels, show the same signal in the direction from the anchor back towards the nets or gear.

Art. 21. Where, by any of these rules, one of the two vessels is to keep out of the way, the other shall keep her course and speed.

[See Articles 27 and 29.]

Art. 22. Every vessel which is directed by these rules to keep out of the way of another vessel shall, if the circumstances of the case admit, avoid crossing ahead of the other.

Here too, the vessel engaged in fishing must display appropriate lights and shapes to inform approaching vessels of her occupation, and hold course and speed when there is risk of collision. Also, the approaching vessel must avoid crossing ahead of the vessel fishing. However, the similarity in provisions ends here, since Art. 26, Inland Rules, is limited to sailing vessels.

There are no equivalent provisions in the rules applicable to the Western Rivers or the Great Lakes. Vessels engaged in fishing in the latter waters conform to the same rules as other vessels, whether propelled by sail or power-driven.

It is difficult to justify such differences in the rules for the four geographical areas, local conditions notwithstanding. Special local rules can serve a commendable purpose, and at times are necessary. Needless differences, however, merely create havoc and confuse mariners.



SERVICE RECORDS OF MERCHANT SEAMEN

Among the many duties of a master of a United States merchant vessel is that of reporting on the employment and termination of service of every seaman not shipped or discharged before a shipping commissioner. This duty is required by law, 46 U.S. C. 643. This report is forwarded to the Coast Guard and is made a part of the personnel records kept by the Merchant Vessel Personnel Division. United States Coast Guard Headquarters, Washington, D. C.

It is becoming increasingly important that the records of service of seamen on merchant vessels be accurate and complete, particularly in view of the fact that various seamen's unions have adopted welfare plans affording to their members certain advantages such as sick benefits, maternity benefits, and death benefits to the dependents of a seaman upon his demise. To be eligible for these benefits, it must be established in some cases that the seaman has had substantially long or perhaps recent sea service. If the seaman has had the misfortune of losing the service records given him at the time of discharge from various vessels, such records being in the form of certificates of discharge or entries in a continuous discharge book, the Merchant Vessel Personnel Division of the Coast Guard must be relied upon to furnish duplicate records of the seaman's service on vessels in order that the seaman or his family may have proof of eligibility to receive the benefits to which they may be entitled. This cannot be done unless complete and accurate records are received initially by the Coast Guard.

Another important reason for completeness and accuracy of the merchant seamen's records is that the Coast Guard is frequently called upon to furnish verification of the death of seamen at sea or in foreign ports. This verification may be required for the purpose of processing claims for benefits accruing to the seamen's families under life insurance policies written by commercial insurance companies. An illustration of this is the case in recent months where a vessel in the coastwise trade disappeared without trace while bound from a port in the Gulf of Mexico to a United States Atlantic port, and the Coast Guard was called upon to furnish information as to the identity of members of the crew at the time of the vessel's loss.

On vessels in the foreign and intercoastal trade, records of shipment and discharge of seamen are obtained from the shipping articles signed before Coast Guard shipping commissioners at the beginning and end of each voyage. For records of shipment and discharge of seamen on yessels in the coastwise and nearby-foreign trades where signing of the crew before a shipping commissioner is not required by law, it is necessary to depend upon the reports submitted by the masters for an accurate record of the seamen's service. It is therefore imperative that when a seaman is engaged or discharged not before a shipping commissioner a report of such engagement or discharge be furnished the Coast Guard on Form CG 735 (T). This report should be mailed before the vessel's departure from the port where engagement or discharge is effected. The maintenance of such record is particularly important where a vessel meets with a casualty similar to the one cited in the preceding paragraph.

The majority of reports received from masters of vessels are in proper form. Nevertheless, some contain discrepancies which could be eliminated by observance of the following:

In submitting Form CG 735 (T), it is essential that a seaman's name and number be listed correctly. The spelling of his name should be in agreement with his seaman's document.

The dates of engagement and discharge on the certificate of discharge or record of entry in the continuous discharge book should coincide with the information reported on Form CG 735 (T).

Upon a seaman's discharge, dates and places of engagement and discharge should be entered on this form even though the information as to engagement had previously been submitted. When a seaman deserts, is hospitalized or otherwise fails to join the vessel at sailing time, the date and place of such failure to join should be entered on Form CG 735 (T); the same as if the seaman had been discharged. Service dates should not overlap; that is, if a seaman has been reported as discharged at the end of a particular voyage but remains in the vessel, date of engagement on subsequent reports should be shown as a date subsequent to last reported date of discharge, not his original date of joining vessel.

If a seaman's rating is changed, he should be listed on the report as if he were discharged on the date he last served in his old rating and as again engaged on the date he enters into the new rating.

Adherence to these rules by masters of vessels would be of material assistance in maintaining the seamen's service records at Coast Guard Headquarters.

August 1955

351378-55--2



Q. What entries must be made in the vessel's official logbook relative to fire and boat drills?

A. Entries shall be made setting forth the date and hour, length of time of the drill, numbers on the lifeboats swung out, the length of time that motor- and hand-propelled lifeboats are operated, together with a statement as to the condition of all fire and lifesaving equipment, watertight door mechanisms, valves, etc.

Q. What are the signals for handling lifeboats during drills?

A. One short blast of the whistle to lower boats. Two short blasts of the whistle to stop lowering boats. Three short blasts—dismissal.

Q. What is the signal for boat stations?

A. More than six short blasts and one long blast of the whistle supplemented by the same signal on the general alarm bells.

Q. (a) What vessels are RE-QUIRED to have an emergency squad?

(b) Do the Regulations permit other than required vessels to have such a squad?

(c) What are the duties of the emergency squad?

A. (a) Passenger vessels where the size of the crew permits are reguired to have an emergency squad.

(b) Nothing in the Regulations prevents other vessels from having such a squad.

(c) The emergency squad forms the nucleus of the damage control party. It should be specially trained in the use of all emergency and rescue equipment, and should be made generally familiar with the vessel and the fundamentals of damage control.

Q. (a) What is a certificate of provisional pratique?

(b) What is radio pratique? A. (a) A certificate of provisional pratique shall signify that the vessel may enter, but that additional measures, as specified in such certificate, must be taken in connection with the discharge of cargo, or the landing of passengers, or the sanitary condition of the vessel. A certificate of free pratique shall be issued after such additional measures have been completed.

(b) Radio pratique is granted to vessels by radio by the medical officer in charge of a quarantine station on the basis of information regarding the vessel, its cargo and persons aboard, received prior to arrival of the vessel, when in the judgment of the medical officer in charge of a quarantine station, and in accordance with the instructions of the Surgeon General of the USPHS, the entry of the vessel will not result in the introduction, transmission, or spread of communicable diseases.

Q. (a) What is the duty of the master of a vessel with respect to sanitation?

(b) What penalties is the master of a vessel liable to for failure to maintain his vessel in a sanitary condition?

A. (a) It shall be the duty of the master to see that the vessel, and, in particular, the quarters are in a clean and sanitary condition. The chief engineer shall be responsible only for the sanitary condition of the engineering department.

(b) In addition to the provisions of RS 4450 pertaining to revocation and suspension hearings for masters negligent in their duties, a penalty of not more than \$500 may be levied on the master or other licensed officer responsible for failure to maintain the vessel in a sanitary condition. The Coast Guard may also withdraw the Certificate of Inspection from the vessel.

Q. Describe briefly the facilities available for obtaining medical and quarantine advice by radio.

A. Medical and quarantine advice may be obtained by radio from the stations listed under the appropriate section of the Radio Navigational Aids (H. O. 205). Messages addressed to the U. S. Public Health Service should be prefixed: DH MEDICO

Q. What is the subdivision load line for passenger vessels as defined in the load line regulations?

A. The subdivision load line is the water line used in determining the subdivision of the vessel. The deepest subdivision load line is that which corresponds to the deepest draft.

Q. Explain how to bring-to with the three topsails a-back.

A. Haul the jib and staysails down. Brace all the sails you wish to lie a-back sharp around as you haul up the lee-bowlines. Haul out the mizzen, and put the helm hard-aweather.

MARINER SHIP SAFETY

Although the Mariner class vessels were contracted for prior to November 19, 1952, when the regulations promulgated under the provisions of the 1948 International Convention for Safety of Life at Sea became effective, the principal recommendations of the Convention, to provide for increased safety, were followed in their design and construction.

Many provisions for safety, which had previously been required only on passenger and tank vessels, appeared on these cargo vessels. Fire prevention and protection received particular attention, as did the accommodations provided the crews on these vessels. For example all quarters were constructed of incombustible material, and fluorescent lighting was used throughout the vessel.

On deck one of the most advanced features was the installation of quickacting folding steel hatch covers with hinged sections. These hatch cover sections fold compactly and lock in vertical position at the end of the hatch. Inasmuch as these hatch covers on the main and second decks close watertight, the use of tarpaulins was dispensed with. The elimination of tarpaulins and customary hatch covers on deck was designed not only to increase the efficiency of the vessel but also to reduce the number of injuries resulting from their use.

Other improvements on deck included a revision of the windlass coupled with an improvement in anchor handling and stowage for safer handling and operation. A motor-operated winch was also provided for lowering and hoisting the gangway.

Most of the lifeboats provided Mariner class vessels were of aluminum construction. And provisions which are now a part of the Coast Guard regulations for vessels contracted for after November 19, 1952 were included in the lifeboat arrangements. For example, life lines were fitted, suspended from the spans between the davit heads, and provisions made for embarkation ladders and floodlights for lifeboat operations.

It would appear, therefore, in view of these and many other safety features on board the Mariners, that these vessels would have a more favorable accident record as compared with other type vessels. On the other hand it should be recognized that much of the equipment, especially the cargo gear, is heavier and more intricate than that found on many previous designs. Such characteristics tend to increase unavoidably the accident hazards.

During 1953 the frequency rate of injury per million man-hours of exposure on the Mariners was slightly less than on other type Governmentowned ships operated under general agency agreement under the jurisdiction of the National Shipping Authority. The pattern was reversed in 1954, with the frequency rate of injury on Mariners being slightly higher. During these years Mariner, Victory, and C1-M-AV1 types formed the predominate part of the NSA fleet.

Were it not a known fact that the majority of the accidents which occur aboard ship are the result of human failings or lack of supervision, it might be said the efforts to make Mariner ships safer than any of their predecessors had not succeeded. Structural and design features cannot be blamed, however, for carelessness and negligence on the part of some of the crews who man these ships.

In addition to indicating a need for improvement in the accident prevention program aboard these ships, the NSA's accident records also point up a bright spot in the safety record of the Mariner class vessels.

In analyzing the accidents on both the Mariner and all other types of ships operated for the National Shipping Authority, and comparing them with each other, one major difference in the accident experience of the Mariners became quite evident. It was found that the incidence of injury to steward department personnel was obviously proportionately lower on the Mariner class vessels than on the other types of ships as a class. Only 11 percent of the total accidents (lost time and minor) involved members of that department, while for the other type ships the figure was double this.

This more favorable record on the Mariner class vessels is considered due at least partially to the design of the steward department facilities on board. For all the storerooms, working spaces, crew messrooms, and galley are located on the same deck, consequently eliminating much of the movement of personnel, stores and food from one deck to another. The greater use of mechanical equipment for the preparation of food may also have contributed to the lower injury incidence rate, since there were also fewer injuries from the use of hand tools on the Mariners than on the other vessels. It is apparent that the Mariners are safer ships as far as the steward departments are concerned. and thus the safety features and equipment placed aboard for use by the members of this department have paid dividends.

While the steward department showed an improvement in accident experience on the Mariner class vessels, the reports on the deck department were disappointing. Fifty-four percent of the reported injuries to seamen on these ships occurred in the deck department, while deck department personnel comprise only 38 percent of the crew.

Some of the causes for this high number of accidents on deck may be due to unfamiliarity on the part of the crews with new designs and machinery aboard Mariner vessels. If this is true the safety records should improve on these vessels as the crews become familiar with their newer aspects. It is hoped that future accident reports from Mariner class ships will, therefore, show a trend in line with the accident records of the steward departments, thereby making these vessels the safest in the merchant marine.

From the table below it will be seen that the total number of accidents by causes showed no radical difference between the Mariner ships and all other types during 1953:

	Mariners		All other types	
- 1	No.	%	No.	%
Handling materials and equipment. Slips and fulls. Heavy weather Using hand tools. Miscellancous. Undetermined	37 34 11 10 38	28 27 8 8 29	289 268 64 121 246 70	27 25 6 12 23 7
Total	130	100	1,058	100

There were no appreciable differences in the percentages for 1954. The same major causes of injuries aboard ships are still heading the list. Since they are common to all ships, Mariners as well as all other types, it is evident that it is the personnel on each individual ship who can do the most toward eliminating accidents. The finest equipment can do little to protect careless and negligent workers.

DENUNCIATION OF 1929 CONVENTION

The Government of the United Kingdom received a notification of denunciation of the International Convention for the Safety of Life at Sea, signed at London on May 31, 1929, from Liberia on July 13, 1954, from the Roumanian People's Republic on September 30, 1954, from the Federal Republic of Germany on November 10, 1954, and from Egypt on December 3, 1954.

In accordance with Article 66 of the Convention, the aforementioned denunciations will take effect one year following the date of denunciation.

LESSONS FROM CASUALTIES

BOILER TROUBLES-1863

Modern mariners or vessel operators who have their troubles in convincing the inspectors that their boilers should be allowed more working pressure may find consolation in the following story which took place in Buffalo, N. Y. in 1863. The inspectors and the vessel operators apparently did not always see eye to eye even in that remote day.

The country was in the throes of a bloody Civil War. Steamboats of the day were not exactly noted for safety. Catastrophic boiler explosions had exacted a fearful toll of lives and property. Such inspection standards as had been established were far from perfect and even these were subject to evasions due to the disruptions and exigencies of war. It was only 2 years later on April 27, 1865 that one of the most appalling marine tragedies in the history of this country occurred, when the passenger river steamer Sultana exploded, burned, and sank on the Mississippi River about 7 miles above Memphis, Tenn., with the loss of 1,500 human lives. At the time of the explosion there were 2,000 more people aboard than her certificate of inspection allowed. most of them Union soldiers returning northward. Just before the casualty, the Sultana's boiler had been repaired in an improper manner without the authority of the steamboat inspectors. On this casualty, the Board of Supervising Inspectors commented, "Recklessness, induced by the war, which extends its mischievous tendencies into all branches of trade, is particularly observable among those in or on board some classes of steamers."

Regardless of carelessness or recklessness induced by the war, the owners of the Great Lakes passenger steamer Kenosha were unable to get very far in their complaint that the steamboat inspectors in Buffalo had dealt unfairly with them in limiting their vessel's working pressure. The 645-ton Kenosha was built at Cleveland, Ohio in 1856. A new boiler 181/2 feet in length and 8 feet in diameter had been built in the winter of 1863 for installation in the Kenosha. One section of the cylindrical shell was constructed of iron plate 3/8 inch in thickness and one section of the shell was built of iron plate % inch in thickness. The local inspectors applied a hydrostatic pressure test to the boiler of 108 p. s. i. which would have been the standard test for a boiler of its dimensions constructed of

3/8 inch iron plate throughout, and which would give a working pressure of 72 p. s. i. However, the local inspectors allowed a working pressure of only 60 p. s. i, using the smaller plate thickness of 5/16 inch as the determining factor. The owners of the Kenosha immediately appealed to the Supervising Inspector, 9th Inspection District, for an allowed working pressure of 72 p. s. i., claiming that the local inspectors should have regarded the boiler as a "low pressure" boiler and as one made of 3/8 inch iron plate throughout, because of the extra stay-bolting and bracing of the fire-box and the area which included the 5/16 inch plate. The owner also pointed out that operating at the reduced pressure of 60 p. s. i. would increase fuel expenses and decrease the speed of the vessel. The engineer of the Kenosha also pointed out that the engine working at this pressure was inadequate to the size of the wheel and the burden of the vessel.

In ruling upon this appeal, the Supervising Inspector found that: "The points of grievance at issue in this case seem to be then, based upon economy in expenses of fuel, and the attainment of speed for the vessel. These are, indeed, important qualifications in a steamer, so far as the owner is concerned, especially in these times of prosperity to commerce. But they are questions that should be adjusted between the projectors and owners of vessels and their equipments, before the construction of the same; and, with which, the Inspectors would seem to have but little or nothing to do. The chief care of the Inspectors is to guard, sacredly, the lives of persons on board the steamer. against accident by fire, explosion, and shipwreck."

The Supervising Inspector in his written decision traced the history of the steamboat inspection service up to this time, with particular emphasis upon the act of Congress of 1852, and its limitations and requirements on steam boilers. He concluded by saying, "It is a matter of no consequence then, in the case under consideration, whether the boiler be regarded as of high or low-pressure in its structure and form. It is adapted to either purpose, and in this instance is serving a high-pressure engine, and was therefore regarded by the Inspectors as a high-pressure boiler. It is clearly established, by evidence, and beyond dispute, that different thicknesses of iron plates were used in the construction of this boiler, as above set forth. and it is equally clear by the above

resolution, that however well that portion of the boiler, constructed of $\frac{1}{16}$ inch iron plates, may be staybolted and braced, the standard of *tensile strain* of the *plates* is to be regarded the same, and must not be increased.

In all instances, the pressure of the hydrostatic test, or that of the working power, is equal in either case, upon all parts of the boiler exposed to it. It is the same upon the plates that enclose the fire-box, as upon those used in the cylindrical part. Yet it is claimed that by reason of extra staybolting and bracing, that portion of the boiler constructed of $\frac{3}{16}$ plates, is equally strong with that part constructed of $\frac{3}{2}$ plates. This theory may be true, but the law does not seem to admit of its application."

In finally affirming and sustaining the action of the local inspectors, the Supervising Inspector stated that regardless of the economics of the case. the discussion was only hinged upon whether the inspectors were right or wrong in limiting the boiler pressure of the Kenosha in accordance with law and in the interests of safety of life. "If there be doubts existing upon this point, should they not outweigh all considerations of pecuniary character, and, as in cases of the administration of justice, where life is in jeopardy, be cast upon the side of humanity?"

In comparing the factors involved in the above decision 92 years ago with the factors involved in presentday decisions, it is difficult to find much difference. The same delicate balance between the desire to be considerate and fair to the owner and the compulsion of conscience and duty to do what *must* be done in the interests of safety of life, which faced the Supervising Inspector in 1863, faces us today, and will be here tomorrow.



COMBUSTIBLE PANELS

The results of the terrifying speed and violence of an uncontrolled fire sweeping through a vessel built largely of combustible materials are vividly portrayed in the accompanying illustrations. Figure 1 is a view of the crew's quarters after the fire. Figure 2 is a view of the ship's laundry where the fire is believed to have started. The vessel which came so close to utter destruction was a Western Rivers pusher-type, diesel-powered, shallow-draft, towing vessel, of 691 gross tons. She carried a crew of 15 and was fitted out with spacious and comfortable quarters. Her hull was steel but her superstructure was constructed, to a large extent, of light wood, heavily coated with combustible, oil-base paint.

It was about 9 a. m. on a bright cold winter's morning. The tug was moored to the bank of the river, just below a lock, together with two tank barges containing full cargoes of gasoline. The river lock was closed for repairs when the two had arrived the previous night, so arrangements had been made to pump the liquid cargoes around the lock by means of a pipeline to tank barges above the lock. Several other towing vessels with their tank barges were also lined un for the transfer operation. The illfated tug had moored at the end of the line to wait her turn and all hands but the anchor watch had turned in.

Early that morning the three deckhands turned to washing down the decks. As one of them walked around to the port side to scrub down, he suddenly saw smoke and flames coming from the laundry room. Shouting the alarm, he ran forward to awaken the Master. He then grabbed a carbon tetrachloride extinguisher, and played it on the flames in the laundry without much effect. In the meantime, the Master, the pilot, and the rest of the crew arose and ran out on deck. The Chief Engineer quickly started the fire pump and put 60 pounds of pressure on the fire mains. Some of the crew succeeded in leading out the fire hoses from the two hydrants on the port and starboard sides. The laundry room and most of the crew's quarters were now a mass of flames. Clothing and bedding were burning which created large clouds of black smoke.

The Master ran up to the pilothouse and blew several blasts on the whistle to alert the other towboats. Due to the flames and smoke he could not get to the ship-to-shore radiotelephone. He then returned to the main deck where he ordered all mooring lines in but one, which allowed the towhoat to drift down-stream the length of the remaining line, approximately 100 feet away from the tank barges and their explosive contents. Soon after the whistle signals, four other towboats got underway and approached the flaming inferno. These tugs immediately commenced to fight the fire; one moored on the starboard side and played streams of water on the flames; one stood off and played water on the port side; one moored alongside to port and actually ran fire hoses aboard the flaming tug. The fourth towboat faced up on the stern and prepared to pull her away from her tow-the last mooring line was thrown off and this tug moved the group, with the holocaust in the center, down stream to a point where it could be beached until the fire was extinguished. This cooperative effort was a highly commendable feat and worthy of high praise. Although the actions of those in charge of these vessels were instigated to a large extent by fear that the fire would spread to the gasoline barges with disastrous results to all, still their prompt action was fraught with danger and was most commendable.

Despite the combined efforts of all the firefighters before the flames could be brought under control, the fire spread through the main deck quarters, up the companionway to the Texas deck and to the pilothouse, all of which were completely burned out to the steel skeleton. Finally it was brought under control and extinguished.

While standing by the fire pump in the engineroom during the fire, the Chief Engineer noticed that the steel bulkhead at the forward end of the engineroom was hot and the paint beginning to smolder. While he watched it, the paint burst into flames in the vicinity of the fuel oil day tank. He immediately extinguished these flames, using the hose from the installed 100 pound CO₂ reel and rack. He then coupled a 50-foot length of fire hose to the engineroom hydrant and kept the bulkhead covered with spray until the fire was brought under control. Due to his commendable and effective actions, the engineroom suffered no damage from fire other than the blistered area on the bulkhead. Again, had the Chief Engineer been a person of less intestinal fortitude and departed his station when fire appeared, the results of the fire reaching the fuel oil day tank might have meant the complete destruction of the vessel, possibly with loss of life.

In later investigating the fire, it was concluded that it had originated in the laundry room. At the time of the fire there were considerable clothing and linen in this room. The electric circuits around this space were properly installed with marine armored cable, suitable junction and panel boxes and ample fuse protection. The circuit supplying the washing machine, mangle, and hand iron was protected by two 20-amp. fuses. This same circuit was similarly protected at the main switchboard with two 20-amp, fuses. There was no sign of a short circuit or overheating in these circuits and all of the fuses were intact. Although no one would admit having been in the laundry room during the night or morning preceding the fire, the only logical conclusion as to its origin was a carelessly abandoned cigarette or match. There were no materials such as oily rags or cotton waste which would normally be susceptible to spontaneous heating in this compartment.

Of particular significance in this casualty was the speed and severity of



Figure 1. Looking through crew's quarters, starboard to port, following fire.

the fire in completely destroying the bulkheads and panels. With the exception of the engineroom, the partitions of the various compartments consisted of panels of 3/16-inch fir plywood which were bolted to vertical angle bars. A more combustible bulkhead can hardly be imagined. To make a bad situation worse, the plywood panels were covered with many coats of oil-base paint, which was rich with varnish. In places the thickness of paint almost exceeded the thickness of plywood. It burned furiously and contributed greatly to the disabling smoke and fumes. The steel bulkhead forward of the engineroom was insulated with 2-inch fiberglass batting. Except for two small areas under drop-type windows in which insulation was necessarily omitted, this steel bulkhead was unaffected by the intense heat and flames of the fire.

It is interesting to note that this fiberglass insulation, which was installed primarily to reduce heat transfer from the engine space to the crew's quarters, served admirably to prevent transmission of the fire or heat damage to the bulkhead itself. The two uninsulated spaces under the windows were the area in which the Chief Engineer noted the smoldering paint and actual ignition in the engineroom. In addition to the insulation on the engineroom bulkhead, fiberglass insulation had been installed on the outer steel walls of the Texas deck quarters and the main deck quarters. In these areas, the steel was similarly unaffected by the fire which had raged in that area. However, the linoleum tile installed on the deck in all of the quarters burned with an intense heat and was completely consumed.

This vessel, an inland river motor towing vessel, was not subject to inspection by the Coast Guard and the only requirements of law as to her material condition and equipment were requirements as to equipment to be carried, such as fire extinguishers, whistle, bell, navigation lights, life preservers, etc. Nevertheless, the owner indicated that the lessons learned from this casualty, as to the value of insulation and the hazards of highly combustible materials, were not lost-the vessel was to be reconstructed, incorporating every possible safety feature including fiberglass insulation of all bulkheads, asbestos paneling in place of the former plywood paneling, and increased circuit protection on all electrical circuits.

The value of installing fire-resistant and fireproof materials in lieu of combustible materials is well understood by all reputable ship builders and naval architects, and should be readily apparent to any vessel owner or prospective owner. However, for the small vessel owner, to whom the advice of a naval architect may not be readily available on such matters as the type of incombustible insulation or fire-resistant material which

would be most effective and practical for the particular use desired, such advice may be obtained from any local Coast Guard Marine Inspection Office. The Coast Guard publication "Equipment Lists", CG-190, available at all such offices, contains lists of currently Coast Guard-approved deck coverings, structural insulations, bulkhead panels, and incombustible materials. These lists, used in conjunction with the portions of the Coast Guard "Rules and Regulations for Passenger Vessels", CG-256, which define the types of such materials which must be used in particular applications on American passenger vessels, will be a valuable guide to the small vessel owner in deciding what materials should be used in his vessel to guard against the ravages of fire. Additional guidance as to insulating applications and the use of incombustible materials is contained in the Coast Guard's Navigation and Vessel Inspection Circular No. 6-54, dated September 22, 1954, a copy of which is available in each Marine Inspection office. One last bit of advice-if you are going to insulate any part of your vessel for comfort purposes alone, that is to reduce heat transfer, use an approved incombustible insulating material such as listed under "Incombustible Materials" in the booklet "Equipment Lists". This material will cost little, if any, more than a combustible insulation, and, when the chips are down, may prove to be enormously less costly. It may save your vessel.



Figure 2. View of laundry room where fire apparently started.

August 1955

RESCUE BY RAFT

Two recent rescues at sea in which balsa life floats played vital parts have served to remind the seagoing world of the potential utility of these floats under extreme weather conditions.

During the height of hurricane "Carol" which ravaged large sections of New England on August 31, 1954, a dramatic rescue took place a few miles off Cape Cod, which exemplified the finest tradition of the sea, the saving of fellow men in distress. Directly in the path of the hurricane and laboring in mountainous seas, the fishermen on one small trawler removed the entire crew of another trawler which was in a sinking condition.

As disheartening as were the elements that day, there was no lack of valor on board the trawlers *Friendship II* and *Jacintha*, both vessels out of New Bedford, Mass. That the days of "wooden ships and iron men" are not over was well proven before the day was out. Only by the most heroic efforts were the 11 men on the illfated *Friendship II* snatched from the grasping clutch of Davy Jones, to sail another day.

The Friendship II had been trawling on the Georges Bank about 4 days when the master received a radio report of the approach of hurricane "Carol," which was accompanied by high seas, heavy rain, and low visibility. The weather advisory warned that all small vessels should seek shelter. About noon on August 30. 1954 the Friendship II hauled in her trawls and headed for New Bedford. Weather deteriorated rapidly. Plowing along at slow speed through the mountainous seas, the small craft was doing well until about noon on August 31, when the height of the hurricane's fury was at hand. Just when the master decided to heave to and try to ride out the heavy seas, an enormous wave smashed over the vessel, carrying away the doghouse and opening other parts of the deck to the sea. Immediately it was realized that flooding could not be kept down and that the vessel and all hands were in dire distress. It was decided to head for the beach as a last desperate resort, with the idea that some of the crew might make it ashore through the combers. The master hoisted the United States flag upside down as a distress signal and headed for the lee shore, the coast of Martha's Vineyard.

By the greatest of good fortune, the trawler *Jacintha* which was lying to, in order to weather the blow, saw the



Courtesy Maritime Reporter

Friendship II in apparent distress and proceeded toward her. At this time the visibility through the dark and angry gale was only a few hundred feet! During the next 2 hours, there occurred an epic of the sea, a deed which will be recorded in the annals of seafaring heroism.

As the radio on the Friendship II was smashed and out of commission, two men were placed in the standard 10-man life float and the float was payed out on a messenger line to enable them to reach the Jacintha and inform her master of the imminent danger of sinking. Within minutes, however, the line parted and the two men started to drift away, apparently doomed. Fortunately, the master of the Jacintha, by excellent seamanship, maneuvered alongside the float and the two men were hauled aboard, drenched and miserable, but alive.

As soon as the master of the Jacintha, Capt. Sofus Mortensen, realized that the Friendship II was in sinking condition, he maneuvered his vessel close enough so that a line could be passed. To this line was secured the life float which was then hauled over to the Friendship II. Fortunately, she still had power on her trawl winch which helped in hauling the float back to windward against the tremendous seas. Most of the hauling, however, was done strictly by hand by the crews of both vessels. Fighting desperately against awesome odds, with hurricane winds howling and green water on deck-slipping, falling, grasping-five times-the float moved from the sinking trawler to the other. Finally, 11 tired, shaken, water-soaked, but happy men were safely on board and the sea had been deprived of one more fearful toll.

Thirty minutes later the Friendship II was seen to disappear below the surface in one final surge, stern first. The Jacintha cruised slowly and determinedly out against the roaring elements until safely offshore again. Early the next morning she arrived in New Bedford and put ashore the rescued men, safe and well, and with the warm feeling in their hearts which only men snatched from a watery grave can understand.

Captain Mortensen saved the 10man life float and stated that he was going to keep it as a souvenir—that "it should be framed." He was officially commended by the Commandant of the United States Coast Guard for heroism and outstanding seamanship in saving 11 fellow men from the sea.

The second rescue involving life floats occurred recently in the Gulf of Mexico when the tug Bertha R collided with a barge she was towing and was damaged to the extent that she sank soon afterward. All hands, 11 in number, abandoned the tug in 2 balsa life floats, each man wearing a life preserver. The weather at the time was unfavorable with 10- to 15-foot seas and high winds. Fourteen hours later, the SS Helen Lykes, after an extensive search, sighted the two rafts and successfully rescued the 7 survivors-the other 4 having died from exposure. Despite 14 hours amidst heavy seas and winds, these men had remained afloat and in an upright condition until help could arrive.

The value of such life floats in enabling seamen to survive the perils of the deep has been demonstrated many times. In removing survivors from aircraft down at sea or from distressed vessels, Coast Guard cutters have used inflatable rubber lifefloats with excellent results on several notable occasions. While inflatable lifefloats are not carried on United States vessels, most vessels have on board some type of balsa life float or other approved-type buoyant apparatus which is adaptable for the removal of persons from sinking vessels.

The use of a life float for removing personnel from a distressed vessel has many advantages. In heavy seas it is difficult if not impossible to launch a lifeboat, take it alongside a distressed vessel, return and hoist it aboard without possible injury or loss of life. The experienced crew necessary to handle a lifeboat safely under such adverse conditions is not always available. On the other hand, if contact can be established between rescue vessel and distressed vessel by drifting a float on a messenger line to the other, it should be possible to haul the survivors across the water by inexperienced personnel and without endangering an entire lifeboat's crew.

Launching a life float is not difficult as it can be thrown overboard and will be equally effective no matter which side is up as all approved type floats are reversible. On smaller vessels men can jump or slide down lines into the float. On larger vessels, if necessary, each man, wearing a life preserver, can jump overboard near the float and then climb into it. While riding alongside a distressed vessel or rescue vessel, a life float is less likely to suffer damage from striking the hull than is a lifeboat and in the event of damage, it retains most if not all of its buoyancy.

The possibilities of effecting rescues by use of life floats or other buoyant apparatus should be well considered hy all mariners. Some day you may be in the float.

DH MEDICO

(Continued from page 132)

grees and knots and the word "from." Example: SURFACE WIND FROM ONE FORTY NINE TRUE FIFTEEN KNOTS. Not "Wind south southeast three quarters East force four," which does not tell a pilot quickly and for sure either the approximate direction of the wind or its velocity.

(2) Describe the sea conditions as clearly and accurately as possible. It must be realized that landing an aircraft offshore is a hazardous operation. Consequently, underestimating the size of the swells might easily create an additional emergency. Example:

LONG SWELL FROM 280 TRUE FIVE FEET HIGH FIVE HUN-DRED FEET BETWEEN CREST MOVING AT THIRTY KNOTS STEEP WIND DRIVEN SEA FROM NORTH TRUE FOUR FEET HIGH EIGHTY FEET BETWEEN CREST MOVING AT TWELVE KNOTS.

To determine the speed of the swell, throw over a life jacket and clock the time between passage of two successive swells under it. Five times the square of this time in seconds equals roughly the distance in feet between crests; three times the time in seconds equals roughly the speed of the swell in knots. Use the same formula for the wind driven sea. Estimate sea or swell height—trough to crest—carefully by eye.

(3) The pilot may request that a lee be made. This can be done by circling with hardover rudder at full speed. After completing 3 or 4 circles the area inside the ship's turning circle should be considerably smoother than the outside. Continue the circle until the plane has landed unless the pilot asks you to stop or take some particular heading.

MEDICINE DROP

In the case where the plane will make a medicine drop, there is also a preferred procedure for the merchant ship to follow. It should head into the wind so the pilot may make the drop without having to figure drift. The medicine will be packed in a yellow, waterproof, floatable package. Prior to the drop, one of the lifeboats should be prepared for immediate launching, with the boat crew standing by in case it is dropped into the sea; additional lookouts should also be posted on the bow, stern and bridge wings to keep the package in sight.

The forcegoing procedure pertains to offshore aircraft operations. There are also rescue operations along the coast by helicopter. Here the merchant ship procedure differs somewhat, except, as before, the ship should proceed at top speed toward the rescue helicopter.

Once radio contact is established. either directly or via shore relay station (500 kc, or 2182 kc.), advise the pilot of the true wind direction. During the period that the helicopter hovers over the ship's after deck, the ship should be on a course which gives the least roll and pitch. It is the Captain's responsibility to pick such a course taking into consideration the wind and sea conditions. It is not necessary to head into the wind, in fact, some cross wind is desired so that the air turbulence caused by the stack and rigging will not be as noticeable in the after deck hovering area.

In the case of a flat or near calm, the ship's speed should be sufficient to give a wind component of at least 5 knots, which is desirable for efficient helicopter operation.

RESPONSIBILITY

It can be seen that while the pilot of the Coast Guard plane or helicopter is charged with the most responsibility for making a successful drop or removal, the ship's Captain also has certain responsibilities. A good example of how his lack of knowledge or indifference to these responsibilities can mean the difference between a successful or unsuccessful rescue mission occurred in the Atlantic in August 1951, as follows:

On August 4, 1951, the Captain of the Italian freighter *Taurinia*, enroute from Freetown, South Africa to Charleston, S. C. originated an urgent MEDICO addressed to the Coast Guard radio station at Charleston. The following is the text of the message:

"HELP HELP HELP TWO MEN DEAD MORE DANGEROUSLY ILL DANGER LIFE HIGH FEVER STOP EXHAUSTED MEDICALS ASK AIR-PLANE WITH DOCTOR AND CHLOROMICETINA PENECILLINA CAMPHORATED OIL LAT 25.33 N LONG 65.30 W AT 0320 GMT TRUE 298 SPEED 10 PLEASE CONFIRM BT MASTER"

The U. S. Public Health Service recommended that a doctor and medicine be put aboard the ship as soon as possible. Accordingly, within a short time a PBY departed San Juan. Following the receipt of the MEDICO on 500 kc., shore stations and later the plane attempted by continuous transmission to contact the Taurinia—unsuccessfully. Eight hours later, approximately 1,000 miles at sea, the PBY located the freighter and circled while an attempt was made to establish visual communicationthis also proved to be unsuccessful. Unable to ascertain sea conditions from the ship but able to see that the sea was high and rough, the pilot decided that an open water landing was too hazardous and prepared for a medicine drop.

Two drops were made—both unsuccessful. This was due largely to the fact that the pilot was unable to instruct the ship to head into the wind, stop engines and stand by for the drop. Had the ship assisted in any way to establish communication or maneuvered on its own into the wind, so as to help reduce the drift factor, the drop would probably have been successful.

Mission unaccomplished, the Coast Guard plane commenced the homeward flight. A few days later the Coast Guard cutter Androscoggin intercepted the Taurinia and transferred a doctor and hospital corpsman to the ship where they successfully treated the illness which had cost the lives of three seamen and which was diagnosed as bacillary dysentery.

It is evident then that when a MEDICO is originated, it sets off a chain of events great in scope; and the Captain's responsibility instead of ending becomes even more encompassing.

EDITOR'S NOTE:

This is the first of a series of two articles. The concluding article in the September issue will describe in detail the procedures to be followed in transferring a patient from a ship to a scaplane and from a ship to a helicopter.



Courtesy Maritime Reporter

APPENDIX

AMENDMENTS TO REGULATIONS

[EDITOR'S NOTE.—The material contained herein has been condensed due to space limitations. Copies of the Federal Registers containing the material referred to may be obtained from the Superintendent of Documents, Washington 25, D. C.]

TITLE 46—SHIPPING

Chapter I—Coast Guard, Department of the Treasury [CGFR 55-24]

LICENSING OR CERTIFICATING OF MER-CHANT MARINE PERSONNEL AND DE-NIAL OR REVOCATION OF LICENSES, DOCUMENTS, OR CERTIFICATES

By virtue of the authority vested in me as Commandant, United States Coast Guard, by Treasury Department Order No. 120, dated July 31, 1950 (15 F. R. 6521), and Treasury Department Order 179-9, dated August 3, 1954 (19 F. R. 5195), to promulgate regulations in accordance with the statutes cited with the regulations below: *It is ordered*, That:

(a) The temporary instructions regarding denial or revocation of seamen's documents (CGFR 54-41) published in the Federal Register dated October 16, 1954, are canceled 90 days after the date of the publication of this document in the FEDERAL REGIS-TER, except that all actions initiated or in process of determination under these temporary instructions shall be continued as though the instructions had not been canceled; and,

(b) All the amendments and new regulations in this document are prescribed and shall become effective 90 days after the date of publication of this document in the FEDERAL REGIS-TER.

Subchapter 8—Merchant Marine Officers and Seamen

PART 10-LICENSING OF OFFICERS AND MOTORDOAT OPERATORS AND REGIS-TRATION OF STAFF OFFICERS

SUBPART 10.02-GENERAL REQUIREMENTS FOR ALL DECK AND ENGINEER OFFICERS' LICENSES

1. Section 10.02-1 (a) is amended to read as follows:

§ 10.02-1 Issuance of licenses. (a) Applicants for licenses are charged



with the duty of establishing to the satisfaction of the Coast Guard that they possess all of the qualifications necessary, such as age, experience, character and citizenship, before they shall be entitled to be issued licenses. Until an applicant meets this mandatory requirement, he is not entitled to be licensed to serve as an officer on a vessel of the United States. No person who has been convicted by courtmartial of desertion or treason in time of war, or has lost his nationality for any of the other reasons listed in 8 U. S. C. 801, is eligible for a license. Neither is a person eligible for a license, who has been convicted by a court of record of a violation of the narcotic drug laws of the United States, the District of Columbia, or any State or Territory of the United States, within ten years prior to the date of filing the application: or who, unless he furnishes satisfactory evidence that he is cured, has ever been the user of or addicted to the use of a narcotic drug.

2. Section 10.02-9 is amended by adding a new subparagraph (1) to paragraph (a) and by revising subparagraph (b) (1), reading as follows:

§ 10.02-9 Requirements for renewal of license. (a) * * *

(1) Written application. The Officer in Charge, Marine Inspection, shall, before granting renewal of license, require the applicant to make written application on Coast Guard Form CG-3479.

(b) * * *

(1) A letter of transmittal indicating reasons for not appearing in person and stating to the best of his knowledge no physical incapacity exists, together with a properly executed application on Coast Guard Form CG-3479.

SUBPART 10.05-PROFESSIONAL REQUIRE-MENTS FOR DECK OFFICERS' LICENSES (INSPECTED VESSELS)

3. Section 10.05-15 is amended to read as follows:

§ 10.05-15 Master of bays, sounds and lakes other than the Great Lakes, steam and motor vessels. (a) The minimum service required to qualify an applicant for license as master of steam and motor vessels on bays, sounds and lakes other than the Great Lakes is:

(1) One year's service as first class pilot of steam and motor vessels on bays, sounds and lakes other than the Great Lakes; or, (2) One year's service as mate of steam and motor vessels on bays, sounds and lakes other than the Great Lakes; or,

(3) One year's service as master of steam or motor vessels of 150 gross tons or under on bays, sounds and lakes other than the Great Lakes, while acting under the authority of a first-class pilot's license, for a license as master of bays, sounds and lakes other than the Great Lakes, steam or motor vessels of a tonnage commensurate with the experience of the applicant, but of not more than 500 gross tons; or,

(4) Two years' service in the deck department of steam or motor vessels on bays, sounds and lakes other than the Great Lakes, while holding a license as first-class pilot for bays, sounds and lakes other than the Great Lakes, as quartermaster or wheelsman for a license as master of steam and motor freight and towing vessels on bays, sounds and lakes other than the Great Lakes, limited to a gross tonnage commensurate with the experience of the applicant, but not more than 500 gross tons.

4. Section 10.05-39 is amended to read as follows:

§ 10.05-39 Pilot. (a) minimum service required to qualify an applicant for a license as pilot is: (1) Three years' service in the

deck department of ocean, coastwise, Great Lakes or bays, sounds and lakes, other than the Great Lakes, steam or motor vessels, of which 18 months shall have been as able seaman, or service in a capacity at least the equivalent of able seaman. Of the 18 months as able seaman, or equivalent capacity, at least 1 year shall have been on vessels operating on the waters of the class for which pilotage is desired in the capacity of quartermaster, wheelsman, able seaman or equivalent capacity, who stands regular watches at the wheel or in the pilothouse as part of his routine duties; and,

(i) Twenty-five percent of such service shall have been obtained within the 3 years immediately preceding the date of application; and,

(ii) The required service shall include a minimum number of round trips over the route for which the applicant seeks license as pilot, as may be fixed by the Officer in Charge, Marine Inspection, having jurisdiction. (Experience on motorboats as defined by statutes may be accepted by Officers in Charge, Marine Inspection, for a license or endorsement as

144

pilot, but such licenses or endorsements shall be limited to a gross tonnage commensurate with such experience, irrespective of any other license or endorsement held by the applicant); and,

(iii) One of the required number of round trips shall have been made over the route within the 6 months immediately preceding the date of application; or,

(2) Three years' service in the deck department of any vessel of which at least one year shall have been on vessels operating on waters of rivers while serving in the capacity of quartermaster, wheelsman or deckhand who stands watches at the wheel as part of his routine duties, for license as pilot of river routes. The provisions of subdivisions (i) through (iii) in subparagraph (1) of this paragraph are applicable to this subparagraph.

(3) Two years' service in the deck department of steam or motor vessels navigating canals and small lakes, such as the New York State Barge Canal and Seneca and Cayuga Lakes in the State of New York, 1 year of which shall have been within the 2 years immediately preceding the date of application for a license as pilot of steam and motor vessels of limited tonnage for the waters and/or routes on which the qualifying service was acquired.

(b) The Officer in Charge, Marine Inspection, issuing a license or endorsement as pilot shall impose suitable limitations, commensurate with the past experience and qualifications of the applicant, with respect to class of vessel for which valid, tonnage, route and waters.

5. Section 10.05-41 is amended to read as follows:

§ 10.05-41 Endorsement of masters' or mates' license as pilot or extension of pilot's route. (a) A master or mate applying for endorsement of his license for authority to act as pilot, or a pilot desiring an extension of route, shall produce proof of experience acquired by a minimum number of round trips over the particular waters for which he seeks such endorsement or extension as may be required by the Officer in Charge, Marine Inspection, having jurisdiction. One of the required number of round trips shall have been made within the 6 months immediately preceding the date of application.

(b) The holder of a license as master or mate of ocean or coastwise vessels who has had recent satisfactory service under the authority of his license is eligible for examination for endorsement as pilot on any waters upon completing the number of round trips over the route required for his

grade of license by the Officer in Charge, Marine Inspection, having jurisdiction, while serving in the capacity of quartermaster, wheelsman or able seaman who stands regular watches at the wheel as part of his routine duties. Experience as an observer, properly certified by the master and/or pilot of the vessel is also acceptable in such cases. An endorsement as pilot granted under these provisions shall be limited to the tonnage and class of vessels for which the holder's license as master or mate is valid, except as provided in § 10.05-39 (a) (1) (ii).

6. Section 10.05-43 is amended to read as follows:

§ 10.05-43 Examination for license as pilot. (a) An applicant for license as pilot or endorsement of masters' or mates' license as pilot or extension of pilot's route shall be required to pass a satisfactory examination as to his knowledge of the subjects listed in this paragraph:

(1) Pilot rules.

(2) Inland rules applicable to route.

. (3) Local knowledge of winds, weather, tides, currents, etc.

(4) Chart navigation.

(5) Aids to navigation.

(6) Ship handling.

(7) Chart sketch of the route and waters applied for, showing courses, distances, shoals, aids to navigation, depths of water and other important features of the route.

(8) General. Such further examination as the Officer in Charge, Marine Inspection, may consider necessary to establish the applicant's proficiency.

(b) An applicant for extension of pilot's route on waters of the same class and general area as that for which he is already licensed shall only be examined on the italicized subjects in paragraph (a) of this section.

SUBPART 10.13-LICENSING OF RADIO OFFICERS

7. Section 10.13-5 (a) is amended to read as follows:

§ 10.13-5 General provisions respecting all licenses issued. (8) Applicants for licenses, issued in accordance with this subpart, are charged with the duty of establishing to the satisfaction of the Coast Guard that they possess all of the qualifications necessary, such as, age, experience, character and citizenship, before they shall be entitled to be issued licenses. Until an applicant meets this mandatory requirement, he is not entitled to he licensed to serve as an officer on a vessel of the United States. No person who has been convicted by court-martial of desertion or treason



in time of war, or has lost his nationality for any of the other reasons listed in 8 U. S. C. 801, is eligible for a license. Neither is a person eligible for a license, who has been convicted by a court of record of a violation of the narcotic drug laws of the United States, the District of Columbia, or any State or Territory of the United States, within ten years prior to the date of filing the application; or who, unless he furnishes satisfactory evidence that he is cured, has ever been the user of or addicted to the use of a narcotic drug.

8. Section 10.13-21 is amended by adding a new subparagraph (1) to paragraph (a) and by revising subparagraph (b) (1), reading as follows: .

§ 10.13–21 General requirements for renewal of license. (a) * * *

(1) Written application. The Officer in Charge, Marine Inspection, shall, before granting renewal of license, require the applicant to make written application on Coast Guard Form CG-3479.

(b) * * *

(1) A letter of transmittal indicating reasons for not appearing in person and stating that to the best of his knowledge no physical incapacity exists, together with properly executed application on Coast Guard Form CG-3479.

SUDPART 10.15-LICENSING OF OFFICERS FOR UNINSPECTED VESSELS

9. Section 10.15-25 (a) is amended to read as follows:

§ 10.15–25 Application and experience required for original or raise of grade of licenses. (a) Applicants for original or raise of grade of licenses are charged with the duty of establishing to the satisfaction of the Coast Guard that they possess all of the qualifications necessary, such as age, experience, character and citizenship, before they shall be entitled to be issued such license. Until an applicant meets this mandatory requirement, he is not entitled to be licensed. No person who has been convicted by court-martial of desertion or treason in time of war, or has lost his nationality for any of the other reasons listed in 8 U.S.C. 801, is eligible for a license. Neither is a person eligible for a license, who has been convicted by a court of record of a violation of the narcotic drug laws of the United States, the District of Columbia, or any State or Territory of the United States, within ten years prior to the date of filing the application; or who unless he furnishes satisfactory evidence that he is cured, has ever been the user of or addicted to the use of a narcotic drug.

SUBPART 10.20-MOTORBOAT OPERATORS LICENSES

10. Section 10.20-3 (b) is amended by adding a new subparagraph (4), reading as follows:

\$ 10.20-3 General requirements.

(b) * * *

(4) No person shall be eligible for a motorboat operator's license, who has been convicted by a court of record of a violation of the narcotic drug laws of the United States, the District of Columbia, or any State or Territory of the United States, within ten years prior to date of filing the application; or who, unless he furnishes satisfactory evidence that he is cured, has ever been the user of or addicted to the use of a narcotic drug.

11. Section 10.20-9 (a) is amended by adding a new subparagraph (1), reading as follows:

\$ 10.20-9 Requirements for renewal. (a) * * *

(1) Written application. The Officer in Charge, Marine Inspection, shall, before granting renewal of license, require the applicant to make written application on Coast Guard Form CG-3479.

SUBPART 10.25-REGISTRATION OF STAFF OFFICERS

12. Section 10.25-7 (d) is amended to read as follows:

§ 10.25–7 General requirements.

(d) An applicant for registry and a certificate of registry as staff officer shall not be required to take an examination, but he shall be required to submit with his application satisfactory proof of his good character and of his prior service, including at least two letters of recommendation from present or former employers. No person shall be eligible for a certificate of registry who has been convicted by a court of record of a violation of the narcotic drug laws of the United States, the District of Columbia, or any State or Territory of the United States, within ten years prior to the date of filing the application; or who, unless he furnishes satisfactory evidence that he is cured,



146

has ever been the user of or addicted to the use of a narcotic drug.

PART 12-CERTIFICATION OF SEAMEN

SUBPART 12.02-GENERAL REQUIREMENTS FOR CERTIFICATION

1. Subpart 12.02 is amended by adding a new § 12.02-4, reading as follows:

§ 12.02-4 Basis for denial of documents. No certificate of identification, certificate of service, certificate of efficiency nor continuous discharge book shall be issued to any person who, within ten years prior to the date of filing the application, has been convicted in a court of record of a violation of the narcotic drug laws of the United States, the District of Columbia, or any State or Territory of the United States; or who, unless he furnishes satisfactory evidence that he is cured, has ever been the user of or addicted to the use of a narcotic drug.

SUBPART 12.25—CERTIFICATES OF SERVICE FOR RATINGS OTHER THAN ABLE SEA-MAN OR QUALIFIED MEMBER OF THE ENCINE DEPARTMENT

2. Section 12.25-5 is amended to read as follows:

§ 12.25-5 Commitment of employment. An applicant for a certificate of service in an entry rating shall produce satisfactory proof that he has a commitment of employment as a member of the crew of a United States merchant vessel. This proof, however, shall not be required if the applicant is already in possession of a seaman's document. A transcript of service in the U.S. Navy, U.S. Coast Guard, U. S. Military Sea Transportation Service, or U.S. Army Transport Service shall be accepted in lieu of a letter of commitment. In any of these cases, the applicant may be given more than one entry rating if requested by him and if otherwise qualified.

Subchapter K—Marine Investigations and Suspension and Revocation Proceedings

PART 137—SUSPENSION AND REVOCATION PROCEEDINGS

1. Subpart 137.01, consisting of §§ 137.01-1 and 137.01-5, is canceled and new regulations designated Subparts 137.01 and 137.04 are inserted, reading as follows:

SUBPART 137.01-PURFOSE, AUTHORITY AND SCOPE OF REGULATIONS

se of regulations.
iment of functions.
rity for regulations.
linary proceedings.

SUBPART 137.04-PROCEEDINGS UNDER FUBLIC LAW 500

137.04-1	Revocation of seamen's docu- ments.
137.04-5	Procedures and proceedings.
137.04-10	Suspension of seaman's docu- ment or issuance of a tem-
107 04 15	porary document.

137.04-20 Charges and specifications.

§ 137.01-1 Purpose of regulations. The regulations in this part establish minimum requirements and procedures governing the suspension or revocation of a license or certificate or document issued by the Coast Guard or predecessor authorities to a person qualified therefor as required by law or regulation in this chapter. The Secretary of the Treasury by an order dated July 31, 1950 (15 F. R. 6521), delegated to the Commandant the functions formerly performed by him. under Reorganization Plan No. 3 of This included suspension or 1946. revocation under R. S. 4450 of any license, or certificate, or document issued by the Coast Guard or predecessor authorities.

(b) The Acting Secretary of the Treasury delegated, inter alia, to the Commandant, United States Coast Guard, the functions vested in the Secretary of the Treasury by Public Law 500, 83d Congress, 2d Session, 68 Stat. 484, approved July 15, 1954, to revoke a license or certificate or document of a person convicted of narcotic law violations or otherwise involved with narcoties. The Commandant hereby further delegates the authority to revoke a license or certificate or document to examiners which was originally granted by order dated October 11, 1954 (19 F. R. 6678).

§ 137.01-15 Disciplinary proceedings. Suspension or revocation proceedings shall be instituted by an investigating officer in any case in which it appears, as a result of any investigation made under Part 136 of this subchapter, or otherwise, that there are reasonable grounds to believe that a holder of a license or certificate or document issued by the Coast Guard or its predecessor authority:

(a) Has been guilty of an act of incompetence, misconduct, negligence, unskillfulness or endangering of life, while acting under the authority of his license, certificate or document, or has violated any of the provisions of Title 52 of the Revised Statutes, as amended, or any of the regulations issued thereunder; or

(b) Has been convicted of a narcotic drug law violation, or has been a user of or addicted to the use of a narcotic drug, so as to be subject to the provisions of Public Law 500. 83d Congress, 2d Session (secs. 1, 2, 68 Stat. 484).

August 1955

SUBPART 137.04-PROCEEDINGS UNDER FUBLIC LAW 500

§ 137.04-1 Revocation of seamen's documents. The act of July 15, 1954, provides for the revocation of seamen's documents held by persons involved with narcotics. The term "seamen's document" includes any and all types of licenses, certificates, and documents issued to merchant mariners by the Coast Guard and predecessor authorities. Section 2 (b) of the act of July 15, 1954 (Pub. Law 500, 83d Cong.; 68 Stat. 484), reads as follows:

Sec. 2. The Secretary may-

(b) Take action, based on a hearing before a Coast Guard examiner, under hearing procedures prescribed by the Administrative Procedure Act, as amended (U. S. C., title 5, secs. 1001-1011), to revoke the seaman's document of—

(1) Any person who, subsequent to the effective date of this act and within ten years prior to the institution of the action, has been convicted in a court of record of a violation of the narcotic drug laws of the United States, the District of Columbia, or any State or Territory of the United States, the revocation to be subject to the conviction's becoming final; or

(2) Any person who, unless he furnishes satisfactory evidence that he is cured, has been, subsequent to the effective date of this act, a user of or addicted to the use of a narcotte drug.

§ 137.04-5 Procedures and proceedings. The procedures and proceedings seeking the revocation of a seaman's document based in whole or in part on the act of July 15, 1954 (Pub. Law 500, 83d Cong.; 68 Stat. 484), as well as the appeal therefrom, shall be in accordance with the applicable regulations in this part, except where those requirements are inconsistent with the act of July 15, 1954, or this subpart. These proceedings shall be predicated upon holding an outstanding license or certificate or document, regardless of whether or not the holder was in the service of a vessel at the time of the alleged offense.

§ 137.04-10 Suspension of seaman's document or issuance of a temporary document. In view of the fact that the act of July 15, 1954, provides for revocation only, the only order which an examiner may enter in cases brought under this act, when the case is proved, is one of revocation. In every case proved under this act, no temporary license, certificate, or document will be issued pending determination of an appeal to the Commandant.

§ 137.04-20 Charges and specifications. Where proceedings are based exclusively on the provisions of sec-

tion 2 (b) of the act of July 15, 1954. the charge should be "conviction of narcotic law violation" or "use of narcotics" or "addiction to use of narcotics," depending on the circumstances. The specification should allege jurisdiction by stating the elements as required by Public Law 500 and the approximate time and place of the offense. The specifications covering "use" or "addiction to the use" of narcotic drugs should be stated as dual specifications when possible. The actual proof presented at a hearing may support only a specification of "use" or "addition to the use" of narcotic drugs.

SUBPART 137.05-INVESTIGATING OFFI-CERS AND INVESTIGATIONS

2. Section 137.05-5 is amended by revising the first two sentences of paragraph (a) to read as follows:

§ 137.05-5 Investigating procedures. (a) The investigating officer shall investigate marine casualties and inquire into complaints of such nature as are set forth in § 137.01-15. Upon the completion of such investigation or inquiry, the investigating officer shall take one of the following courses of action:

SUBPART 137.17-DISCLOSURE OF ' RECORDS

3. Section 137.17-5 is amended to read as follows:

§ 137.17-5 Final decisions of Commandant. There shall be maintained at Coast Guard Headquarters, Washington, D. C., and in each district office, a file of final decisions of the Commandant on appeals in the adjudication of disciplinary proceedings, which file may be inspected or examined by parties in interest during usual business hours. Any and all portions of these files may be reproduced and supplied upon payment of costs of reproduction.

Subchapter E-Load Lines

[COFR 55-25]

PART 44—VARIANCE FOR STEAM COLLI-ERS, TUGS, BARGES, AND SELF-PRO-PELLED BARGES (WHEN ENGAGED IN SPECIAL SERVICES OR COASTWISE AND INTER-ISLAND VOYAGES)

PART 45-MERCHANT VESSELS WHEN ENGAGED IN A VOYAGE ON THE GREAT LAKES

LOAD LINES FOR TOWED BARGES AND VESSELS OF SPECIAL DESIGN

(Federal Register of Friday, June 17, 1955)

EQUIPMENT APPROVED BY THE COMMANDANT

[EDITOR'S NOTE.—Due to space limitations, it is not possible to publish the documents regarding approvals and terminations of approvals of equipment published in the Federal Register dated May 7, 1955 (CGFR 55-18) and June 22, 1955 (CGFR 55-26-CGFR 55-27). Copies of these documents may be obtained from the Superintendent of Documents, Washington 25, D. C.]

ARTICLES OF SHIPS' STORES AND SUPPLIES

Articles of ships' stores and supplies certificated from 30 April 1955 to 31 May 1955, 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:

CERTIFIED

Dearborn Chemical Company, Merchandise Mart Plaza, Chicago 54, Ill., Certificate No. 204, dated May 23, 1955, "DEARSOL 92."

AFFIDAVITS

The following Affidavits were accepted during the period from 15 April 1955 to 15 May 1955:

Associated Valve & Engineering Co., 1150 West Marquette Road, Chicago 21, Ill., VALVES.

Mr. Charles F. Elchinger, 916-926 Magazine St., New Orleans 12, La., CASTINGS.

Munro & Miller Ltd., Africa House Kingsway, London, W. C. 2, England, -FITTINGS.

The following affidavits were accepted during the period from 15 May 1955 to 15 June 1955:

Zandt Brass Foundry, Seattle, Wash., CASTINGS.

Western Steel Castings Co., Seattle. Wash., CASTINGS.

A SAILOR'S FAITH

I worship the Goddess of the Sea In all her changing moods. She is the most beautiful thing in the world to me, With her dark and rippling hues.

There is nothing like her on this bountiful earth, No lake, no hill, no tree!

Her laughing thunder and tinkling mirth Are the essence of life to me!

When the sun shines down on a clean healthy day She dances and laughs like a child, Whose arms and legs are the flinging spray, Whose cries are happy and wild!

On a dark stormy night as she crashes and roars, Like a lion intent on his kill, The spirit within me flutters and soars, And I cry out aloud with the thrill!

She is deep moving and restless with the clouds hanging low,

The huge waves are somber and grey. They move with a powerful consecutive flow, Surging ever and onward away!

The peace that she brings to oft tortured souls, Is soothing and calming at last.

They are carried away from the shores stinking holes! They are cleansed and the sea holds them fast.

So I pray to my Goddess who has ever been kind, Asking only that she,

Allow me to remain alive till I find, The future of life's holdings for me.

By William Alman