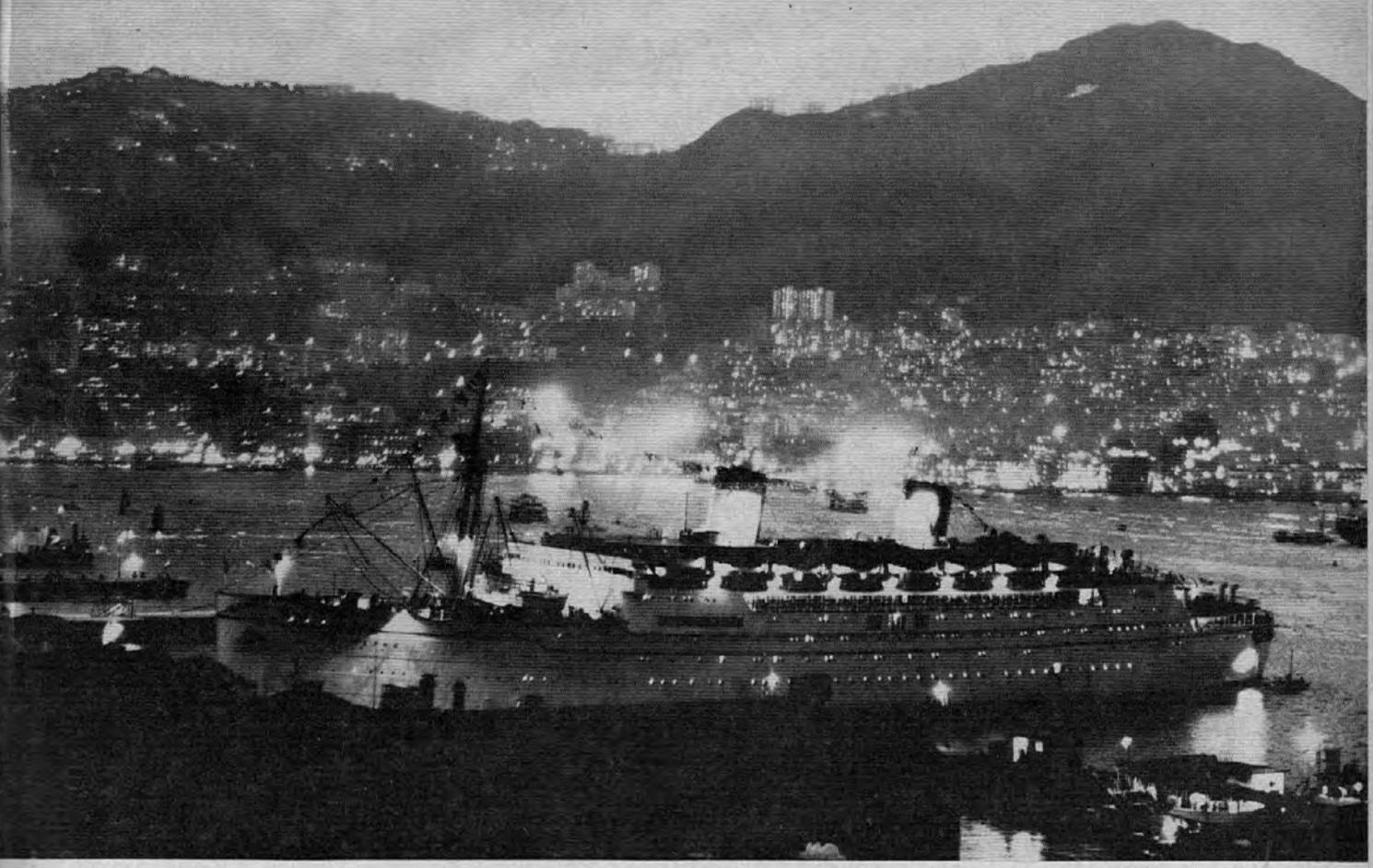
# PROCEEDINGS

## OF THE MERCHANT MARINE COUNCIL

UNITED STATES COAST GUARD

Vol. 16, No. 11 • November 1959

CG–129



Features

## U.S. PROPOSALS FOR THE 1960 SOLAS CONFERENCE

## THE RULES OF THE ROAD

# PROCEEDINGS
OF THE
MERCHANT MARINE COUNCIL

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**FRONT COVER**

A vessel more familiar to Hawaii, our 50th State, the SS *Lurline* is shown in an unfamiliar locale. This picture by Mr. William Harrison was taken from Kowloon, Hong Kong. Victoria, the capital of the British Crown Colony, is shown in the background.

**BACK COVER**

SS *Steel Age* honored—an award by the National Safety Council, Marine Section, and the American Merchant Marine Institute.

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## DANISH GOVERNMENT HONORS CGC CAMPBELL

DENMARK'S gratitude for the rescue assistance rendered by the U.S. Coast Guard Cutter Campbell in the search for the MS *Hans Hedtoft* off southern Greenland last January was expressed in the presentation of a silver plaquette to the Campbell in ceremonies held aboard the vessel at St. George Coast Guard Base, Staten Island, N.Y.

Captain Frederick J. Scheiber, USCG, Commanding Officer is shown receiving the award from the Danish Ambassador, Count Kield Gustav Knuth-Winterfeldt.

The plaquette bears the inscription in Danish:

"U. S. C. G. C. Campbell"
for meritorious participation
in the search for the MS *Hans Hedtoft*
which was lost on January 30, 1959
south of Greenland

# EXAMINATIONS FOR THE COAST GUARD ACADEMY

SAILS FURLED, the 295-foot, three-masted training bark *Eagle* of the Coast Guard Academy Cadet Practice Squadron is moored at the Coast Guard Base in San Juan, P.R.

ANNUAL examinations for appointment to cadetship in the U.S. Coast Guard will be conducted on February 23 and 24, 1960, in 118 cities in the United States and abroad. Successful applicants will report to the Academy at New London, Conn., in July 1960.

Entrance to the Coast Guard Academy is achieved as a result of nationwide competitive examinations. There are no congressional appointments as at the other Academies, nor are there any geographic quotas.

An applicant must be a high school senior or high school graduate, and must have reached his 17th but not his 22d birthday on July 1, 1960. An applicant still in high school must graduate and earn 15 units by June 30, 1960. These units must include three in English, two in Algebra, one in Plane Geometry, and seven additional units in Mathematics, English, Science, Social Studies, or foreign language. An applicant must be in excellent physical condition, between 64 and 78 inches in height, with proportionate weight, have 20/30 vision in each eye, corrected to 20/20, and normal color perception.

The Academy curriculum includes military training and a well-rounded course of study in engineering, the humanities, and subjects related to the professional duties of a Coast Guard officer. Extracurricular activities include a variety of clubs and athletics. Coast Guard teams compete with many colleges in a dozen varsity sports. Coast Guard cadets spend a portion of each summer at sea, training aboard the bark *Eagle* and major cutters. Cruises are made each summer, calling at numerous foreign ports.

Upon completion of training at the Coast Guard Academy, a cadet is commissioned as Ensign in the Coast Guard and awarded a bachelor of science degree. After graduation, officers may apply for flight training qualifying them for service as aviators in the Coast Guard. Postgraduate training is also available in many fields related to Coast Guard duties. Postgraduate courses are conducted at the advanced military schools and leading universities and colleges throughout the country.

A booklet and application forms may be obtained by writing to the Commandant (PTP–2), U.S. Coast Guard, Washington 25, D.C. The completed application forms must be returned prior to January 10, 1960.

# U.S. PROPOSALS FOR THE 1960 INTERNATIONAL CONFERENCE ON SAFETY OF LIFE AT SEA

By Capt. Donald T. Adams, USCG

IN JANUARY 1958 the Commandant of the Coast Guard received a delegation of authority from the Secretary of State to assume overall responsibility for initiating and coordinating the preparation of proposals for the revision of the 1948 Safety of Life at Sea Convention to be considered at a conference in London in 1960.

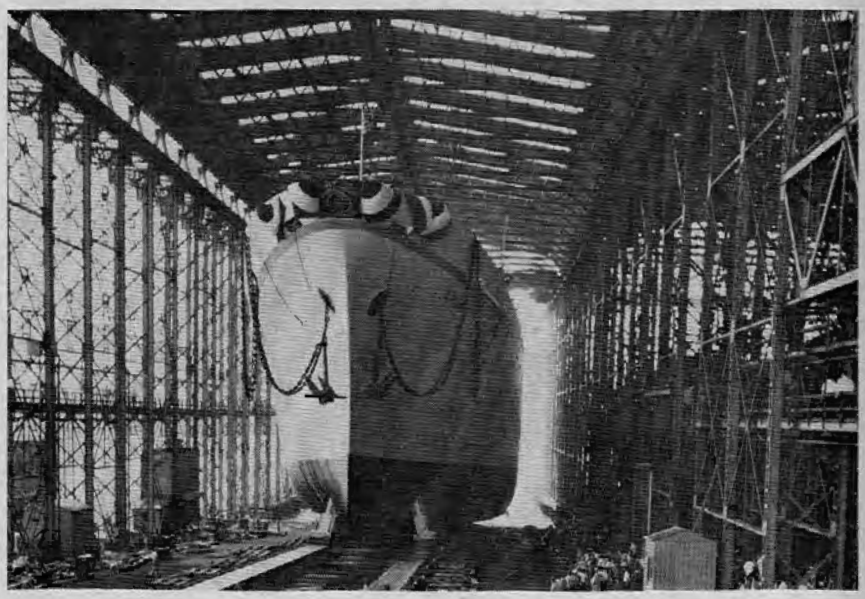
**Delegates and advisers from more than 50 nations will assemble in London on May 17, 1960, to revise the 1948 International Convention on Safety of Life at Sea. An International Load Line Conference, initially scheduled for 1960, has been postponed until 1961. The conferences will be held under the auspices of the Intergovernmental Maritime Consultative Organization (IMCO) of the United Nations.**

**Enforceable rules and minimal standards for vessels engaged in international trade have been established by international conventions. Signatory nations to such agreements enforce these standards and rules upon their own vessels and upon foreign ships within their jurisdiction.**

**Vice Adm. A. C. Richmond, Commandant, U.S. Coast Guard, summarized the achievements of previous international conferences in a paper entitled "The International Marine Safety Picture," which appeared in the *Proceedings* of December 1958.**

**Capt. Donald T. Adams, USCG, Executive Secretary of the General Committee for the Development of the U.S. Proposals for the 1960 Conference, outlined the nature of our more important proposals, how they developed, and the manner in which the proposals of the signatory nations will be handled at the forthcoming convention in a panel discussion at the annual meeting of the Marine Section, National Safety Council, at Chicago in October 1959.—*Ed.***

The United Kingdom, which had the Bureau Power for the Convention, found, after consultation with other signatory nations, that there was agreement on the need to call, and issued the necessary notices to bring about a conference to revise the 1948 SOLAS Convention. In July 1959 the Intergovernmental Maritime Consultative Organization of the United Nations took over as Bureau Power for the Convention pursuant to its charter.



**THE NUCLEAR POWER COMMITTEE will recommend changes in Chapter I of the convention designed to recognize the existence of nuclear-powered ships such as the *Savannah* above.**

### U.S. ORGANIZATION

The Committee for the Development of the U.S. Proposals for the 1960 Conference was established by the Commandant of the Coast Guard in keeping with the Department of State directive. The organization is composed of all the U.S. Government agencies which have an interest in the matters under consideration, representatives of shipping and allied industries, and representatives of principal labor unions. The organization is supervised by the *General Committee* which is the control committee to review the proposals of the five working committees discussed below prior to submission of the proposals to the Department of State. The General Committee is composed of the Commandant of the Coast Guard (Committee Chairman), the Chief of the Shipping Division of the Department of State (Vice Chairman), the Legal Adviser of the Department of State, the Maritime Administrator, the President of the American Bureau of Shipping, and the chairman of the five working committees which are as follows:

**(a) Construction Committee:** This committee is under the chairmanship of Vice Adm. E. L. Cochrane, USN (Ret.). The principal task of the committee is the development of proposals to revise the regulations concerning construction contained in chapter II of the appendix to the 1948 Convention. It is interesting to note that this Construction Committee had as its nucleus a group of experts composing a committee (also under the chairmanship of Vice Adm. Cochrane) which had for 2 years been working on the problem of reevaluation of construction standards for passenger ships. This forerunner committee had been formed to meet the need for such an evaluation pointed up by the *Andrea Doria-Stockholm* disaster and subsequent action by a congressional committee. It was only necessary to expand the original membership and give the committee new terms of reference.

**(b) Lifesaving Appliance Committee:** This committee is under the chairmanship of Rear Adm. H. T. Jewell, USCG, Chief of the Office of Merchant Marine Safety. It has the responsibility for reviewing and developing proposals to revise the regulations in chapter III of the convention.

**(c) Radio Committee:** Under the chairmanship of the Honorable R. T. Bartley, Commissioner of the Federal Communications Commission, this committee has the task of proposing changes to the regulations contained in chapter IV of the convention.

**(d) Safety of Navigation Committee:** The work of this committee, under the chairmanship of Rear Adm. I. T. Duke, USN (Ret.), has been divided among three subcommittees:

*Subcommittee A*—to deal with proposals to revise the Regulations for the Prevention of Collisions at Sea;
*Subcommittee B*—to review the regulations contained in chapter V and submit proposals for changes which relate to many aspects of safety of navigation;
*Subcommittee C*—to review chapter VI and prepare proposals for changes relative to the loading of bulk cargoes and the handling of dangerous goods.

**(e) Nuclear Power Committee:** Mr. Arthur Gatewood, vice president of the American Bureau of Shipping, is the chairman of this committee. There are, of course, no provisions in the 1948 convention relating the nuclear-powered ships. As early as 1955 the Commandant of the Coast Guard had asked the Society of Naval Architects & Marine Engineers to investigate the problem of the establishment of safety requirements as regards nuclear propulsion. The society had responded by the establishment of a panel to carry out the investigation. It was only necessary to reconstitute and enlarge the membership of this panel to form the Nuclear Power Committee which is charged with bringing forward proposals to give recognition to the existence of nuclear-powered ships in the revised 1948 convention and establish some basic regulations concerning the acceptance of such vessels in the ports of the world.

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### ABOUT THE AUTHOR

CAPT. DONALD T. ADAMS has been in the Coast Guard since April of 1927 and has served in various capacities ashore and afloat, including that of commanding officer of the cutters *Kaiui* and *Iroquois*, director of the Auxiliary and Reserve in the 2d CG District, and as Head of the Ordnance Department of the USCG Academy at New London.

Prior to his present assignment as Executive Secretary of the General Committee for the Development of the U.S. Proposals for the 1960 SOLAS Conference, Captain Adams was the Senior Coast Guard and Merchant Marine Detail Officer, EUROPE.

He has also served as an adviser to the U.S. delegation to the International Whaling Commission (1957), and the Intergovernmental Maritime Consultative Organization (1958).

### THE NATURE OF OUR MORE IMPORTANT PROPOSALS

At the time of preparation of this paper, the General Committee had not acted on all proposals to change the regulations in chapter I of the convention (the control chapter), nor had it given final approval to the recommendations to be put forward by the Construction Committee. The General Committee, however, had approved the proposals of the Nuclear Power, Lifesaving Appliance, Radio and Safety of Navigation Committees.

The proposals put forward by the Nuclear Power Committee relate to changes in chapters I and II of the convention. The Committee's report is divided into three parts.

The first part contains a discussion of the philosophy of the United States in meeting the problems arising out of the operation of nuclear-powered ships. Briefly, this is the establishment of a means to treat nuclear-powered ships like other vessels of their class with additional requirements being established to meet the hazards incident to the operation of a nuclear reactor afloat.

The second portion of the Committee's report puts forward recommendations for changes in chapters I and II of the convention in support of the basic philosophy. The changes recommended in chapter I are designed to recognize the existence of nuclear-powered ships in the convention. The changes in chapter II involve the establishment of a new section dealing with survey requirements, construction, etc., as applied to nuclear ships. The guiding principle is that a nuclear-powered ship must meet the highest safety requirements for a vessel of her class and thereafter must meet the special requirements arising out of her particular type of powerplant.

The third part of the Committee's report is the Technical and Research Bulletin No. 3–6 prepared by the Society of Naval Architects & Marine Engineers. The title is "Safety Considerations Affecting the Design and Installation of Water-Cooled and Water-Moderated Reactors in Merchant Ships." This paper will be sent to all signatory nations as background information together with our proposals.

The changes to chapter III of the 1948 convention developed by the Lifesaving Appliance Committee would accomplish the following:

1. Permit the use of inflatable liferafts aboard passenger and cargo ships.
2. Prohibit the nesting of lifeboats.
3. Require that life preservers and life buoys not be adversely affected by oil and oil products.
4. Require that certain life buoys and life preservers be of a high-visibility color.
5. Permit the use of materials other than wood or metal in the construction of lifeboats.
6. Insure that persons embarked in a lifeboat do not interfere with its operation.
7. Require a motor lifeboat aboard passenger and cargo vessels.
8. Provide a minimum amount of fuel for a class B motor lifeboat.
9. Permit the portable radiotelegraph to be dispensed with where two class A motor lifeboats are carried.
10. Specify a definite time for fire and boat drills.
11. Require lifeboats to be launched within 30 minutes.
12. Permit the use of launching apparatus other than davits.
13. Require that the type of davit be dependent upon the capacity of the boat instead of the weight.
14. Require electric lighting for decks and lifeboats.
15. Permit small passenger vessels to carry a reduced number of lifebuoys.
16. Provide special consideration for lifecraft on vessels where living and/or working spaces are widely separated.

### RADIO COMMITTEE PROPOSALS

Some of the more important proposals of the Radio Committee designed to insure greater safety of life at sea concern changes to Chapter IV, "Radiotelegraphy and Radiotelephony," are the following: (1) A proposal to extend the convention requirements to include ships which are on voyages "at sea" as well as on international voyages. This is a new approach, the application of which is limited to the regulations in chapter IV. The proposal is designed to increase materially the size of the maritime communications network for use in the event of distress. "At sea" means while the ship is being navigated outside a harbor or port on

PROPOSED CHANGES to chapter III of the 1948 convention would permit the use of inflatable liferafts aboard passenger and cargo ships.

either an international voyage or a voyage of which any part is outside inland or protected waters. (2) Regulations concerning the use of a radiotelephone auto alarm. (3) Provisions for raising radio watchstanding requirements. (4) Provisions for raising materiel standards of radio and its ancillary equipment on board ship and in lifeboats.

### RULES OF THE ROAD

Important changes to the International Rules of the Road, as developed by Subcommittee A of the Safety of Navigation Committee, include: (1) Regulations for improvement of ships' navigational lights. (2) Regulations for the purpose of clarification of fog signals and for clearer determination of situations which exist when a fog signal is heard but the source is not visible, when a vessel is "in sight," and when a radar target is apprehended in a position to create danger of collision. (3) Recognition of the fact that vessels engaged in minesweeping, fueling and replenishment at sea, etc., have restrictive maneuvering capabilities. (4) Modification of the "Steering and Sailing Rules" to require that the burdened vessel take "positive early action" to comply with her obligation, and that small vessels which can safely navigate outside of channels and fairways not obstruct the safe passage of deep-draft vessels. (5) Recognition of radar and imposing upon radar-equipped vessels the obligations which have already been imposed on such vessels by court decisions in admiralty proceedings. (6) Recommendations for the consideration of a more scientific approach to determination of the visibility standards for ships' navigation lights.

### SAFETY OF NAVIGATION

Chapter V of the Convention, "Safety of Navigation," contains many provisions. Subcommittee B of the Safety of Navigation Committee developed many proposals for changes in this chapter, some of the more important of which are the following: (1) A revision of the regulations relating to management and apportionment of costs of the Ice Patrol. (2) Regulations that newly licensed masters and deck officers must have certificates of competency as radar observers if serving on vessels of more than 300 gross tons which are radar equipped, and that all masters and deck watch officers undergo a course in radar training. (3) Regulations requiring that vessels of 500 gross tons and over be equipped with echo depth sounding apparatus. (4) A proposal designed to increase the number of vessels which are required to carry radio direction finders.

In addition to the proposed changes or additions to chapter V, the Committee made the following recommendations: (1) That governments encourage the installation of radar

reflectors on such vessels as may not be good radar reflective targets; (2) that IMCO and International Civil Aviation Organization have mutual problems and positive steps should be taken to insure the largest possible measure of improvement in air-sea rescue procedures and utilization of existing facilities; (3) that bridge to bridge voice radiotelephony systems be installed; (4) that radiotelephone in the 2-mcs. band for ship to aircraft communications be used; (5) that merchant ship reporting systems be established so that governments which have assumed the responsibility for search and rescue in a given sea area may have a means of knowing what ships in the area may be in a position to render assistance; and (6) that governments endeavor to provide their ships with floatable position-indicator beacons which will operate in the VHF band.

The proposals which were made to change the regulations in chapter VI of the convention, "Carriage of Grain, Ore and Ore Concentrates and Dangerous Goods," were more in the nature of new regulations. Since 1948 there have been a number of cases where vessels have been in difficulty by virtue of carriage of bulk cargoes, grain and ore. The proposals which the United States has put forward are in the nature of regulations which are the essence of our own code of good practice developed over a period of years and the experience arising out of the loading of thousands of vessels. The new regulations are designed to produce more uniformity in the safe loading of bulk cargoes and to materially reduce the dangers due to cargo shifting.

The proposals regarding the carriage of dangerous goods are designed to improve the 1948 convention regulations in the following respects:

1. To more accurately define the nature of dangerous goods in the light of experience acquired since 1948;
2. Defines more accurately packaging requirements;
3. Provision for each contracting government to notify IMCO of the nature of the rules for the safe packaging and stowage of dangerous goods which the nation adopts; and
4. Permits the use of a detailed stowage plan in lieu of a special dangerous goods cargo manifest.

The scope of the work of the Construction Committee for the past 2 years on means of improving ship safety standards is indicated by the titles of its five subcommittees: Subdivision, Damage Stability, Ballasting, Fire Protection, and Machinery and Electrical. From the subcommittee reports, it appears that the most significant changes which will be proposed by the Construction Committee as to passenger ships are these: (1) Consistent requirements for Damaged Stability and Subdivisions have been developed based on the concept that safety is related to the ability to survive damage. This concept is translated to require that an assumed extent of damage occurring anywhere in the length of the ship be survived without exceeding specified limits of heel, trim, sinkage, or stability. (2) With regard to the problems associated with the carriage of oily ballast, a recommendation that new ships be designed with sufficient inherent stability to permit operation with a minimum of oily ballast. (3) Recommendations as to the arrangement and distribution of such damage control features as bilge pumps, fire pumps, and sources of power to improve their reliability in an emergency. (4) Recommendation for fire protection through reliance on fire-resistant construction. (5) Recommendation for minimizing shell openings below the bulkhead deck.

As to cargo ships, the following changes will be proposed: (1) A one-compartment standard of subdivision and stability in ships of 330 feet and upward. (2) Electrical safety precautions for passenger ships to be extended to cargo ships. (3) Elementary fire protection through fire-resistant construction in way of the accommodation and control spaces.

#### MANNER IN WHICH THE PROPOSALS OF SIGNATORY NATIONS WILL PROBABLY BE HANDLED BY IMCO

The Secretariat of IMCO has requested signatory nations to supply IMCO with 100 copies of their proposals. The proposals from each nation will then be distributed to the other nations. The Secretariat will combine all of the proposals in one volume.

Through this exchange of initial proposals, each nation will be able to instruct its own delegation on the proposals of the other signatory nations. Thus the U.S. delegation to the 1960 conference will be prepared in advance to deal with the many issues involved in the revision of the 1948 Safety of Life at Sea Convention.

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*"From now on the company wants no more excuses. We have radar, sonar, radio direction finder, autopilot, gyrocompass repeaters, and, as of today, an old salt from Gloucester."*

Drawing by Alan Dunn

# THE RULES OF THE ROAD

By Lt. Harry J. Hayes, USCG

THE DEVELOPMENT of sea law has followed the development of shipping. The first known compilation of sea laws, the Rhodian Sea Law, is believed to have been drafted in the 4th century B.C. As commerce moved westward, each port added local ordinances which were eventually compiled into a code for the western Mediterranean called the Consolato del Mare. The Roll of Oleron and the Code of Visby were revisions of the sea law to accommodate shipping as it moved up the western coast of Europe. These early sea laws did not govern the actual maneuvers of vessels to prevent collsions, but placed the blame if a collision occurred. The basic idea was to avoid collision by any maneuver necessary.

When ships became more numerous and increased in size and speed, however, there arose a need for specific rules to prevent collisions. A British naval order issued in 1645 tried to solve the problem requiring that: "No captain shall take the wind of an admiral." The British soon realized that rank can only have certain privileges, and issued an amended order giving a vessel on a starboard tack the right-of-way over a vessel on the larboard tack. This procedure was generally adopted throughout the maritime world. About this time the procedure was adopted giving a close hauled vessel the right-of-way over a vessel running free.

The first steamers were considered as sailing vessels running free. But as steamers became more numerous, this procedure was found wanting. What happened when two steamers met? Mariners even had trouble determining if a vessel was sailing or steaming.

Prior to 1840 the common law sailing rules had been established by custom, with most countries following the example of the British. In that year Trinity House codified the rules and in 1846 they were enacted with statutory authority.

With a statutory obligation to maneuver in a prescribed manner, it became important to show where the vessel was going, and in 1848 the first high seas regulations for navigation lights were enacted. These laws remained virtually unchanged to the present time.

The Trinity House Rules included the Port Helm Rule . . . "Each vessel shall put her helm to port, so as al-

ABOUT THE AUTHOR

SINCE his graduation in 1950 from the Coast Guard Academy, Lieutenant Hayes has been assigned to deck and engineering duties aboard various cutters. He served as a boiler inspector and investigating officer for 4 years in the Marine Inspection Office, New York. He is presently the Assistant Executive Secretary of the Merchant Marine Council, a Member and Recorder of the Council's Rules of the Road Subcommittee, and a Member and Secretary of the Lifesaving Appliance Committee preparing the U.S. position for the 1960 SOLAS Conference.

ways to pass on the port side of the other." With everyone porting the helm, in some cases this gave one ship a better shot at the other instead of avoiding collisions.

### THE PRESENT RULES

In 1863 the British, dissatisfied with the Port Helm Rule and others, revised the Trinity House Rules, and this country adopted the new comprehensive set of rules in 1864. For the next 21 years U.S. vessels on all waters followed one set of 24 rules which prescribed lights to be carried by vessels, fog signals, steering and sailing rules, and provided departure from the rules in case of special circumstance.

The experts weren't satisfied with this set of rules and set out to clarify certain features, and the "Revised Regulations for Preventing Collisions at Sea" were adopted by this country and Great Britain. Unfortunately, when enacted, this new set of rules repealed all inconsistent laws except those governing the navigation of vessels within the harbors, lakes, and inland waters of the United States. As a result the original International Rules (1864) remained in effect on our inland waters and the revision governed the high seas.

The International Rules were revised at conferences in 1889 and 1948, and they will be a subject of the forthcoming Safety of Life at Sea Conference of 1960.

We stayed with the 1864 Rules on all our own waters and the International Rules on the high seas until 1895, when another set (the White Law) was enacted for the Great Lakes. Now we had three. The Inland Rules enacted in 1897 made a fourth set. The original 1864 Rules remained in effect only on the western rivers and they were superseded in 1948 by the present Western Rivers Rules.

Aside from the Inland, Western Rivers, and Great Lakes statutory rules, the Board of Supervising Inspectors had limited authority to prescribe supplementary regulations. When the Coast Guard took over the functions of the Bureau of Marine Inspection in 1942, this authority passed to the Commandant. Three sets of regulations, sometimes known as Pilot Rules, have been promulgated as a result of that provision in the law. Thus a U.S. vessel may be governed by four sets of statutory rules and three sets of regulations. Whether statute or regulation, they must all be obeyed.

**The U.S. Coast Guard is charged with responsibility for the administration and enforcement of the "Rules of the Road." Lt. Harry J. Hayes, Assistant Executive Secretary, Merchant Marine Council, USCG, pointed out the devious paths of development of the Rules and the Coast Guard's general law enforcement procedures in their regard in a panel discussion at the annual meeting of the Marine Section, National Safety Council, at Chicago in October 1959.**

**In his paper, Lt. Hayes reviewed some of the many questions that arise concerning the Rules, examined the practicability of the present Rules, and outlined procedures for effecting their changes.—*Ed.***

The International Rules apply on the high seas, the Great Lakes Rules on the Great Lakes and their connecting and tributary waters as far east as Montreal. The Western Rivers Rules once applied to all rivers flowing into the Gulf of Mexico, but now must be followed by vessels upon the waters of the Mississippi River between its source and the Huey P. Long Bridge and all of the tributaries emptying thereinto and their tributaries, and on that part of the Atchafalaya River above its junction with the Plaquemine-Morgan City alternate waterway, and upon the Red River of the North. The Inland Rules govern navigation on all waters of the United States which are not covered by the Western Rivers or Great Lakes. These rules apply to all vessels. Although the Rules are not uniform, a seagoing vessel may navigate on the Western Rivers and on Inland waters carrying the navigation lights required by the International Rules. If it goes on the Great Lakes, however, it must carry the lights required by the Great Lakes Rules. Motorboats in general follow the Rules of the Road, but the requirements for navigation lights and certain other equipment are contained in the act of 25 April 1940. A motorboat may navigate on any U.S. waters without changing its lights, and if equipped with lights as required by the International Rules, which it may do, it may go any place.

Let's take a trip through these waters aboard a 200-foot steamer. Starting on the high seas in the Gulf or Mexico, our vessel is required to display, at night, red and green 10-point sidelights on the port and starboard side, respectively, two 20-point white range lights, and a 12-point white stern light. Our whistle signals indicate action. Entering inland waters bound toward New Orleans, our passing signals indicate intent. But, as under International Rules, they may only be sounded in sight of the other vessel. Proceeding up the Mississippi, past the Huey P. Long Bridge, we are required to have an amber all-round light synchronized with the whistle. As the ascending vessel, we must initiate the signals in



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a meeting situation. Passing signals still indicate intent, but may be sounded in all weather. Entering the Great Lakes our range light must be an all-round light and the stern light is not carried. Whistle passing signals indicate action and may be sounded in all weather, but the three-blast signal is now a fog signal. If we anchor, two white all-round lights must be displayed forward and two more aft and lower and white lights at every hundred-foot interval. So we go down the St. Lawrence and return to our original international lights when we pass Montreal. This is a very simple case.

#### PENALTIES AND ENFORCEMENT

Like any other code, the Rules of the Road would not be as effective in preventing collisions if there were not some means to enforce them. Every licensed or unlicensed pilot, engineer, mate, or master of any vessel who neglects or refuses to observe the Great Lakes Rules is liable to a penalty not exceeding $500 and, in addition, the vessel may be liable to a penalty of $500. The same penalties apply for the Inland and Western Rivers Rules, and, in addition, the pilot, engineer, mate, or master is liable for all damages sustained by any passenger, in his person or baggage, as a result of such violation. There are no similar fines or penalties contained in the International Rules.

This does not mean that the International Rules can be disregarded. Most mariners would follow the Rules as a matter of self-preservation, but occasionally someone goofs. However, it may happen, this is usually called to everyone's attention by large headlines proclaiming "SS *Neversink* and SS *Strawbottom* collide."

The Coast Guard is empowered to investigate all casualties in our waters and all casualties involving vessels of the United States anywhere. If, as a result of this investigation, it appears that negligence, misconduct, or incompetence on the part of the master or crew contributed to the casualty, a hearing may be held before a civilian examiner. As a result of this hearing a mariner may have his Coast Guard-issued documents revoked, or suspended for a period of time. Without this document he cannot sail aboard a merchant vessel of the United States.

Any person who operates any vessel in a reckless or negligent manner so as to endanger the life, limb, or property of any person may be punished upon conviction by any court of competent jurisdiction by a fine not exceeding $2,000 or by imprisonment not exceeding a year, or both. Reckless operation of any vessel may also be punished by a civil penalty of $100. This penalty may be levied by the Coast Guard.

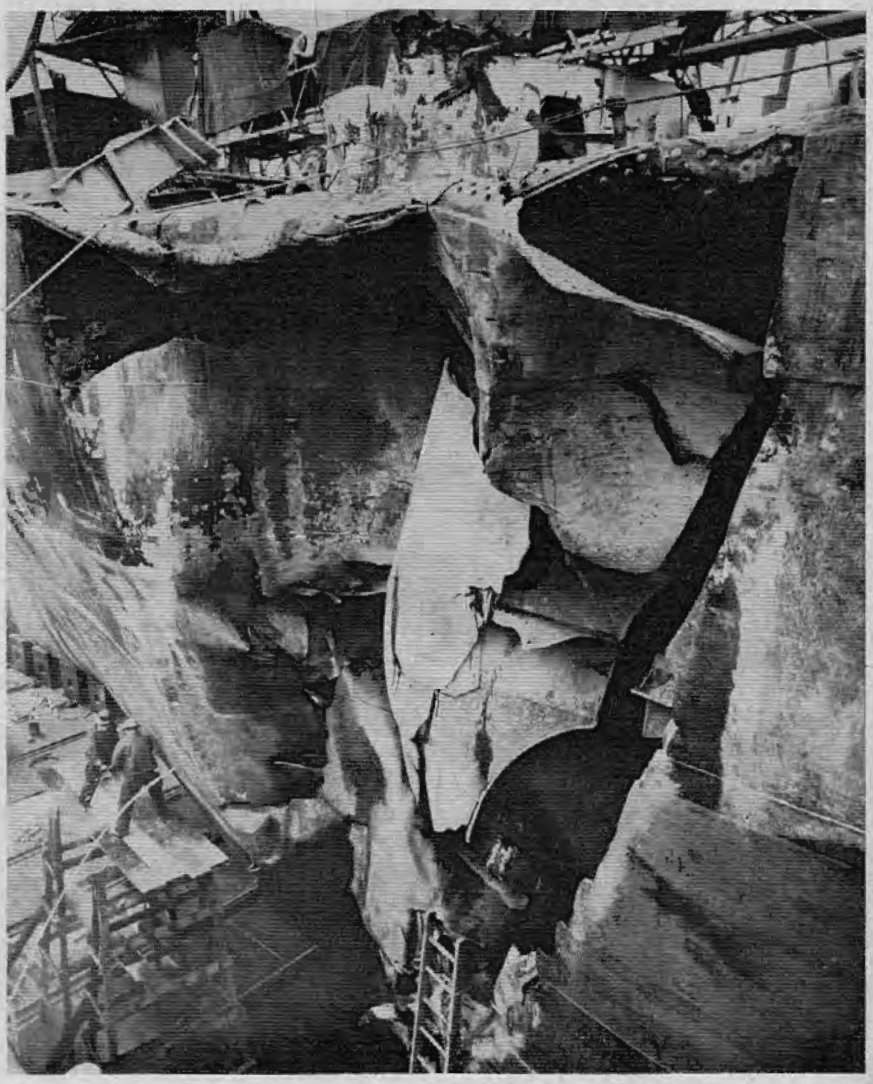
In many cases the vessel may be held liable for the collection of the penalty.

Every captain, engineer, pilot, or other person employed on any steamboat or vessel, by whose misconduct, negligence, or inattention to his duties on such vessel the life of a person is destroyed may be fined not more than $10,000 or imprisoned not more than 10 years, or both.

The Coast Guard is responsible for enforcing the Rules of the Road. Like a police patrol car, our cutters enforce many laws. If a violation of the Rules of the Road is observed, a report is sent to the District Commander. Violations may be reported to the District Commander from other sources. After they are investigated, he is then responsible for dismissing the charge or levying a civil penalty or initiating criminal or administrative action against a mariner. Of course, the responsibility for proceeding under the criminal statutes is vested in the Department of Justice.

#### CURRENT DEVELOPMENT OF THE RULES

Inasmuch as most laws are subject to interpretation and because the Coast Guard is responsible for administering and enforcing the Rules of the Road, we receive inquiries concerning the provisions of the Rules. In order to properly answer these inquiries, a Rules of the Road Subcommittee of the Coast Guard's Merchant Marine Council has been set up. This subcommittee is made up of representatives of the Coast Guard's



Office of Operations, Office of Merchant Marine Safety, Chief Counsel's office, and the Merchant Marine Council staff.

The functions of this subcommittee are twofold: first, consider all proposals to amend or interpret the Rules of the Road. Second, submit recommendations thereon to the Merchant Marine Council, with specific reference as to publication in the Federal Register, referral to public hearing, or necessary legislation. The Council is a deliberate body established to advise the Commandant of the Coast Guard as to policy in connection with and affecting maritime safety. The Council consists of the Commandant and chiefs of various Headquarters offices and divisions and selected District Commanders and Marine Inspection Officer.

After study of the law itself, background, applicable court rulings, if any, and considering practical experience, the Coast Guard answers the inquiries or renders an interpretation. Therefore, in order to fully inform the public of these interpretations, the Coast Guard now publishes them in the Federal Register and they have been added to our latest edition of the various Rules of the Road pamphlets.

The Coast Guard also receives requests for specific changes in the Rules. As previously stated, we have three different types of Rules: international convention, and domestic statutes and regulations. The Coast Guard has been responsible for coordinating the U.S. position for the forthcoming international conference.

Requests for changes in our domestic Rules are generally referred to the Rules of the Road Subcommittee. The subcommittee's recommendation together with any suggested revision of the Rules are forwarded to the Merchant Marine Council. Aside from the statutory rules, the Commandant has limited power to prescribe supplementary regulations. Therefore if the suggested revision involves a regulation, it is placed on the agenda for a public hearing. After considering the comments made at the public hearing, the Council makes its recommendations to the Commandant, and if he approves, the revised regulation is published in the Federal Register. The same procedure is followed for new regulations or cancellations. Of course, sometimes the suggestions are found to have little merit and no action is taken.

If a change in statutory law is involved, the Council makes its recommendations to the Commandant, and if he approves, the change is referred to our legislative section for drafting in bill form. The bill eventually is introduced in Congress. Depending on the support or opposition, the bill may or may not be passed. If passed, it becomes a part of our statutory law. Last year, for example, the Coast Guard sought authority to prescribe day signals for certain vessels and to permit vessels to carry the Rules of the Road pamphlet in lieu of the large placard which contained parts of the Pilot Rules. This was granted for the Inland and Western Rivers Rules but, due to opposition, it was not granted for the Great Lakes. As a result, day signals on the lakes still are prescribed by the Corps of Engineers and the ships there still carry the placard.

### LOOKING AHEAD

The law of the sea has been very slow to change. "The great objection to any change from the existing practice which has become so well known and understood by seamen of all nations, seems to be that more or less confusion might arise while the change is being effected, and collisions result from this reason before the system becomes familiar to the practical seamen." The foregoing statement made by the Commissioner of Navigation in 1884 is just as applicable today.

Is there need for a change today? In general, today's rules are the same ones enacted in the 19th century. In support of the present Rules, I think they have proved to be effective because the vast majority of collisions today are the result of personal fault or error. Weather and sea conditions and material failure are responsible for a few, and every so often someone's calculated risk wasn't calculated carefully enough. Our casualty records show that adherence to the Rules has not been a contributing factor in collisions. Ignorance of the Rules or failure to comply with the Rules have contributed to collisions. However, this Safety Congress with the numbers of people attending it trying to improve their methods of teaching safety is evidence of the alternate to trying to legislate commonsense. As in many of our other problems, we agree that education will solve part of the problem.

You all know about sea lawyers, but there are many able, conscientious, practical seamen who have carefully studied the Rules. They bring their problems to the Coast Guard. I've already outlined the proeedure the Coast Guard has set up to study and answer these inquiries. Sometimes the answer is easy. But the Coast Guard has many problems which require careful study to determine if they affect only one person or a large part of the maritime industry. Obviously the Coast Guard can't seek to change the law every time a problem arises. The Coast Guard policy has been to examine the problem, determine the need for any change and the effect of any change upon the Rules. In any case, such changes are sought in cooperation with those mainly affected.

The Coast Guard has received proposals to indicate course changes by the use of large arrows mounted on a vessel, the use of blinking lights, as on cars, by the use of colored searchlights in lieu of whistle signals. Our questionnaire in 1945 showed that mariners were about equally divided on the merits of a light synchronized with the whistle. This proposal is again being put forth for the 1960 Safety of Life at Sea Conference. Other proposals are more complex; use revolving high-intensity lights, examine the present systems of lights to determine if they are sufficient for the intended purpose, unify the Rules, clarify the Rules, revise the Rules. These are only a few. Each of these proposals receives careful study by the Coast Guard. Some, like the notorious Port Helm Rule, look promising but only cause more problems. Some are discarded, some are still under discussion, and others, such as the use of amber lights for towboats pushing, have been enacted into law.

The Coast Guard also has problems with the Rules. Because we have several sets of Rules, lines of demarcation must be drawn. The first lines were drawn in 1895 dividing the high seas from inland waters. The Coast Guard has received requests to draw other lines of demarcation in areas from Alaska to the Virgin Islands. We've had a similar situation in the Chicago area with Western Rivers Rules vs. Great Lakes Rules. Another problem currently under discussion is whether or not tugboats and towboats are required to display range lights. The rapid growth of recreational boating is one of our biggest problems emphasizing the need for education in the Rules.

The Rules of the Road are not static. The Coast Guard recognizes that there are problems and that changes may be necessary. However, the Coast Guard's policy has been to avoid change for the sake of change. The statutory and the regulatory Rules can be changed, and they have been changed over the years to fit new conditions. Because Rules of the Road are safety laws governing mariners, we feel that any change, whether large or small, should only be made after careful study and discussion with those affected.

# SILICONE MATERIALS SHOULD NOT BE USED IN ENCLOSED D.C. MOTORS AND GENERATORS

By W. H. Fifer, Electrical Branch, Bureau of Ships

THE USE of silicone insulating materials in enclosed direct-current motors and generators will produce abnormal brush wear. This fact has been known for a number of years. However, a number of recent events indicate that all activities are not fully aware of the adverse effect of very small amounts of silicone in enclosed d.c. machines.

Recently, several naval vessels had very rapid brush wear in the propulsion generators immediately after being overhauled. In one instance, newly installed brushes wore down to the rivets in approximately 3 weeks of operation. The carbon dust resulting from the rapid brush wear caused such rapid deterioration of insulation to ground resistance that deployment of the ships was in jeopardy.

Extensive tests and investigations showed that the rapid brush wear was caused by the use of silicone rubber hookup wire for connecting the shunt fields, and silicone-impregnated glass-mica-glass tape applied to some of the interior buswork. Also, on some of the generator armatures the silicone tape had been used to isolate groups of strands of banding wire.

The silicone hookup wire and the silicone tape on the buswork were replaced by nonsilicone materials, and the generators were cleaned in place to remove the carbon dust deposits. When the generators were returned to service, the brushes resumed their original very light wear rate.

The several generator armatures that had silicone tape between and under the banding wire could not have this material removed unless the generators were removed from the ship. These generators were fitted with special silicone-resistant brushes that should keep the brush wear rate within tolorable limits until the generators can be removed for modification at the next scheduled overhaul of the ship. The special brushes are not a complete answer to the silicone problem because they will probably have a higher wear rate than regular brushes in silicone-free generators; they are only a temporary expedient.

The mechanics of silicone effect on brush wear are not completely understood. However, it appears that when even minute amounts of silicone vapor are absorbed in the carbon brushes, the silicone is converted by the arcing under the brush face to a sandlike, abrasive material. Another theory is that the water-resistant properties of silicone prevent the water vapor in the air from reaching the brush contact surface, which is necessary for forming the proper commutator film.

**"Silicone materials, properly applied, are of great value in many naval applications, but they are 'poison' in enclosed machines with commutators or sliprings within the enclosure" is the conclusion reached by Mr. W. H. Fifer of the Electrical Branch, Bureau of Ships, U.S. Navy, after extensive tests and investigations into the use of silicone insulating materials.**

**U.S. Coast Guard Electrical Engineering Regulations [46 CFR 110.10–30 (a 1)] specify the limits of temperature rises for direct current generators based on 50° C. ambient temperature and caution that special consideration should be given to other parts of the machine such as bearings and the like.**

**This article is reprinted from the *Bureau of Ships Journal*, U.S. Navy.**

Whatever the reason, it is known that *any amount* of any type of silicone varnish, compound, rubber, grease, laminate, or binder will cause abnormal brush wear, and must be avoided in *enclosed* d.c. machines or *enclosed* a.c. machines having collector rings within the machine enclosure.

The Bureau of Ships, silicone materials suppliers, motor and generator manufacturers, and brush manufacturers have been trying to solve the silicone brush wear problem for many years. The only success to date has been the development of brushes that have a greatly reduced wear rate in silicone vapor, but that still have a higher wear rate than normal brushes in nonsilicone atmosphere.

To illustrate further the serious effect of silicone on brush wear, a manufacturer of small enclosed d.c. motors (one twenty-fifth horsepower) recently discovered a case of rapid brush wear. An investigation showed that the trouble was caused by a very small silicone rubber grommet in the side of the motor for protecting the motor leads from the casing metal. Another manufacturer recently had similar trouble in a 15-horsepower motor because of silicone rubber hookup wire.

These examples show that the use of *any amount* of silicone materials in enclosed d.c. machinery or a.c. machinery with sliprings in the enclosure must be strictly avoided. Any ship or activity that has enclosed d.c. rotating equipment that is showing abnormal brush wear or unsatisfactory commutation should critically examine the machine for possible sources of silicone.

Hookup wire is particularly suspect because type FF silicone rubber wire has been in general use for several years. Silicone materials adjacent to open d.c. machines in areas of restricted ventilation may also cause abnormal brush wear.

This article should not be construed to mean that silicone materials are not to be used on a.c. motors and generators, transformers, or other types of equipment that do not have commutators or sliprings within the enclosure. Also, silicone materials may be successfully used in parts of well-ventilated open d.c. motors and generators in which the incoming air passes over the commutator before entering the windings.

Silicone materials, properly applied, are of great value in many naval applications, but they are "poison" in enclosed machines with commutators or sliprings within the enclosure.

Rules of the Road, failure to comply with. *Dill* v. *Plaquemine Towing Corporation*, 167 F. Supp. 866 (1958) was an action brought by the owners of a crew boat which was damaged when it passed between a tug and its tow. During the night in question, tug A, proceeding north, was pushing loaded tank barges. In order to assist the barges through a bend in the river, barge B placed a hauser from his stern to the bow of the lead barge. The crew boat, also proceeding north and starboard of tug A, decided to speed up, cross in front of the barge, and pass tug B on the port side. The crew boat failed to notice the hauser connecting the lead barge with tug B. The tug's wave wash caused the crew boat to collide with the lead barge. In addition, her deck-house was sheered by the 5-inch hauser prior to bouncing into the stern of tug B. The court held that the crew boat was at fault for failing to comply with the rules requiring overtaking vessels to sound signals and hold back until the signal assenting to the passage was received. Held also, that the failure to post lookouts or to sound the danger signal by the tug or tow did not contribute to the collision. "Although the manner in which vessels concerned with offshore oil operations navigate would indicate otherwise, the fact remains that the Rules of the Road apply to such vessels as well as any other vessel * * * His [the crew boat's master] testimony shows that while he had heard of the Rules of the Road, he was not certain what they were * * *, he did not know that in the situation in suit the [crew boat] was an overtaking vessel. Consequently, he sounded no signals and attempted to pass without permission * * * Decree for respondents in all respects."

★ ★ ★

Collision, Great Lakes Rules, apportionment of damage. *Pioneer-Wallschiff*, 164 F. Supp. 421, 1958 A.M.C. 2511. The American vessel, *Pioneer*, collided with the German vessel, *Wallschiff*, in Canadian waters on the St. Clair River. The U.S. District Court determined that the Canadian Law and the 1910 Brussels Convention were applicable and found the German vessel 95 percent at fault and the American vessel 5 percent at fault. As the vessels approached one another, the American downbound vessel sounded two blasts indicating a starboard-to-starboard passing. The German vessel did not reply and the danger signal was sounded thirty seconds later by the *Pioneer*. There was considerable evidence of confusion on board the German vessel. The court found that the primary fault was that of the upbound German vessel in "sheering" across the bow of the downbound vessel. As to the degree of fault of the *Pioneer*, the court held that a delay of thirty seconds prior to sounding the danger signal was too long a delay and that her master, being in doubt as to the intended action of the *Wallschiff*, should have complied with the appropriate Canadian Great Lakes Rule, which is the same as Rule 26 (33 U.S.C. 291) by reducing his speed to bare steerageway. However, the court found solace in the fact that the collision was in Canadian waters, allowing him to apply the comparative negligence doctrine. Since the improper navigation of the German vessel was the major cause of the collision, she had to pay the major portion of the damages.

★ ★ ★

Grounding, crowding, vessels at fault for causing; Limitation of liability towage. In *Deep Sea Tankers, Ltd. et al.* v. *The Steamtug Long Branch et al.*, 1959 A.M.C. 28, a T-2 tanker grounded on Diamond Reef in New York Harbor after being crowded to her own starboard side of the deep draft channel by two large tows. Both tug captains were bound west from the mouth of the East River, and their flotillas were swept to the south when neither took into account the 1½ knot current that was flowing at mean low water. As the current swept their tows south into the path of the incoming tanker in the deep draft channel, the tanker blew one blast for a port to port passing, then blew the danger signal after the original whistle went unanswered. She then stopped her engines and began maneuvering, but soon thereafter she grounded. In reversing the District Court, the Circuit Court of Appeals held that the tanker was without blame; the tugs were held at fault because of a negligent disregard of the current in permitting it to move their tows into the wrong side of the deep draft channel, obstructing the navigation of a large vessel. They were also held wrong in failing to respond to signals.

Where each tug-scow flotilla was property of a single owner and a proper petition was made for limitation of liability, the court held that only the value of the tugs must be surrendered into the limitation fund. For purpose of liability for marine tort, the active wrongful vessel does not become one with those passive vessels attached to it.

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## U.S.-FLAG PASSENGER SHIPS

Following is a list of U.S.-flag passenger ships over 1,000 gross tons, exclusive of those operated on the Great Lakes or by the Military Sea Transportation Service, including date of build and passenger capacity.

| Year of Build | Name of Vessel | Passenger Capacity | Year of Build | Name of Vessel | Passenger Capacity |
|---|---|---|---|---|---|
| 1932 | Lurline | 791 | 1947 | Del Sud | 110 |
| 1932 | Matsonia (x-Monterey) | 880 | 1947 | Del Mar | 119 |
| 1939 | Ancon | 216 | 1947 | Santa Sofia | 57 |
| 1939 | Cristobal | 216 | 1947 | Alcoa Clipper | 98 |
| 1939 | President Hoover (x-Panama) | 196 | 1947 | Alcoa Corsair | 98 |
| 1940 | America | 1,231 | 1947 | President Cleveland | 783 |
| 1940 | President Monroe | 96 | 1947 | Alcoa Cavalier | 98 |
| 1941 | President Polk | 98 | 1948 | President Wilson | 774 |
| 1944 | Excalibur | 127 | 1951 | Independence | 997 |
| 1945 | Exeter | 127 | 1951 | Constitution | 997 |
| 1946 | Santa Barbara | 57 | 1952 | United States | 1,982 |
| 1946 | Santa Cecelia | 57 | 1952 | Monterey (x-Free State Mariner) | 412 |
| 1946 | Santa Clara | 57 | 1953 | Atlantic (x-Badger Mariner) | 854 |
| 1946 | Santa Isabel | 57 | 1953 | Mariposa (x-Pine Tree Mariner) | 409 |
| 1946 | Santa Luisa | 57 | 1958 | Brasil | 557 |
| 1946 | Santa Margarita | 57 | 1958 | Argentina | 557 |
| 1946 | Santa Maria | 57 | 1958 | Santa Rosa | 300 |
| 1946 | Santa Monica | 57 | 1958 | Santa Paula | 300 |
| 1946 | Del Norte | 119 | | | |

# MARITIME SIDELIGHTS

The Government has agreed to insure merchant marine bonds issued to cover the construction of two fast "Sea Racer" cargo liners on order for American President Lines, Ltd., San Francisco.

The two bond offerings to finance the SS *President Lincoln* and the other sister ship, *President Roosevelt*, are the first under a new law permitting "package" financing of ship construction from before the keel laying through the economic life of a vessel by the conversion of the construction loan to a 20-year mortgage at the time the ship is delivered. It is a new departure in that it authorizes the Secretary of Commerce to hold funds in escrow and to invest them until needed to meet construction obligations.

The new "Sea Racers" are to be advanced Mariner-type vessels, especially designed for APL.

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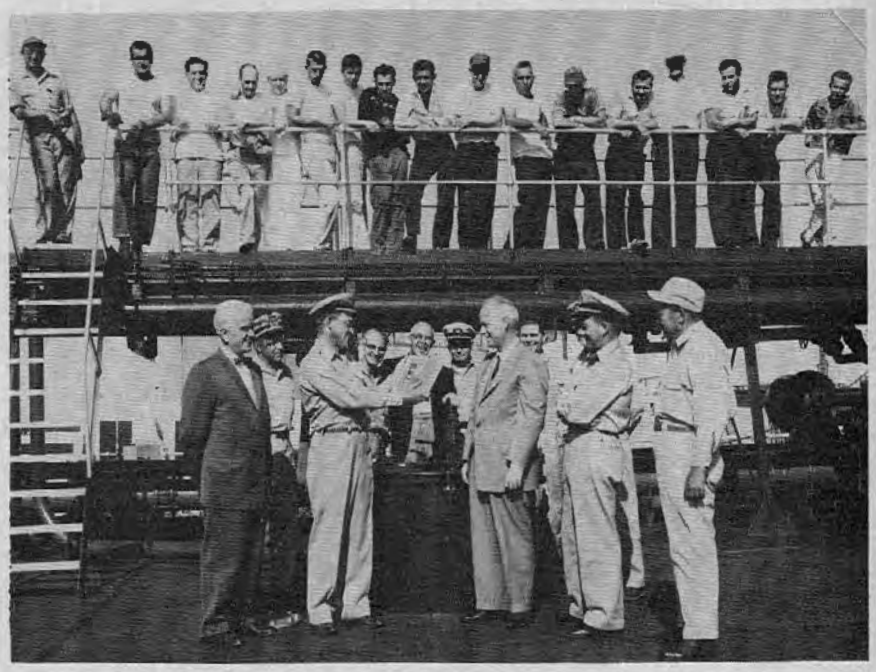
Moore-McCormack Lines, Inc., has inaugurated one of the largest and most modern steamship terminals on the eastern seaboard at the foot of 23d Street, Brooklyn, N.Y.

Under construction for the past 2 years, this new terminal is over 1,470 feet long and 230 feet wide. Storage space, both under cover and "farm" area, extends more than 475,000 square feet. The tremendous space available to handle cargo, both inbound and outbound, will eliminate congestion.

⚓ ⚓ ⚓

Largest U.S.-flag tanker, the *National Defender*, has been launched by the Newport News Shipbuilding & Dry Dock Co. for the National Transport Corp. of New York. The new tanker measures 810 feet in length and 104 feet in breadth. Originally designed as a 60,000-deadweight-ton tanker, she will be 65,926 d.w.t. when completed. This increase in capacity was augmented by increasing the draft and adding strengthening members fore and aft through the use of bottom shell and main deck doublers. The vessel will have a capacity of 646,000 barrels of oil. Her 104-foot beam exceeds that of the *United States*.

## SAFETY AWARD



CAPT. M. C. McGALIS, center, left, master of General Petroleum Corp.'s tanker, SS "Syosset", receives a National Safety Council award on behalf of the vessel's officers and men for completing 1,364,853 man-hours without a lost-time accident. Looking on in the foreground are, from left, Hugh C. Ellis, manager of the marine department; George H. Supple, vice president and director of transportation; U. L. McDonald, third officer; and A. D. Sandoval, chief engineer. Members of the crew watch from the catwalk.

At the time of the presentation, with the record still intact, the vessel lacked just 2 months of completing 4 years of accident-free operation.

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Latest available figures, according to newspaper reports, indicate that 15 percent of the world's tanker fleet—both in numbers and in deadweight tonnage—is now in layup. The present laid-up tanker fleet is composed of 436 foreign-flag vessels totaling 7,204,053 d.w.t. and 52 U.S. tankers of 884,670 d.w.t.

⚓ ⚓ ⚓

The Federal Communications Commission has announced establishment of a trial program to evaluate the adaptability to commercial marine use of a single short-range VHF radiotelephone frequency on 156.65 mc. Inland operators interested in establishing such a station on a trial basis to determine its feasibility have been invited to submit applications to the FCC.

The Commission notice also announced the adoption of revised rules for the operational evaluation of ship-to-ship radiotelephone communication between navigating personnel on ships on inland waters and on the high seas, and between ship and shore stations concerned with the safe movement of ships through locks and bridges spanning inland waterways.

# nautical queries

Q. (a) What is the effect of grounding on the stability of a vessel?

(b) What precautions must be borne in mind prior to discharging ballast or fuel in an effort to refloat a grounded vessel?

A. (a) Grounding reduces the effective stability available to a vessel.

(b) Prior to discharging ballast or fuel in an effort to refloat a vessel, careful consideration must be given to the effect on the stability where the ballast or fuel is low in the ship. Unless careful preparations have been made, lightening a vessel may allow her to go further aground, broach to, or capsize.

Q. On 8 March, at 2000 GMT a radio time signal shows chronometer "A" to be 0m–10s slow.

On 13 March, at 0800 GMT a radio time signal shows chronometer "A" to be 0m–01s slow.

On 18 March, at 2000 GMT an observation is taken. Assuming a constant chronometer rate, what correction should be applied to chronometer "A"?

A. (—) 00m–10s.

Q. Where will complete information be found on the times, frequencies of emission, and characteristics of Radio Time Signals?

A. In H. O. 205, Radio Navigational Aids, full information on Radio Time Signals may be found.

Q. On 13 May, a radio time signal at 1100 GMT shows chrometer "B" to be 0m–15s fast.

On 20 May, a radio time signal at 1900 GMT shows chronometer "B" to be 0m–04s fast.

On 23 May, at 1100 GMT an observation is taken. Assuming a constant chronometer rate, what correction should be applied to chronometer "B"?

A. 00m–00s.

Q. Your vessel is on course 267° True at speed 14 knots. At 1500 a vessel is observed on the PPI scope bearing 015° at a range of 4 miles. At 1515 the vessel observed bears 000° T at a range of 2.9 miles.

(1) Assuming that both vessels maintain course and speed, determine the distance between them at the closest point of approach.

(2) Determine the course and speed of the vessel observed.

A. (1) 2.1 miles (at 1534).

(2) 255.7° and 18.8 knots.

Q. Your vessel is on course 065° True at speed 7.5 knots. At 1900 a vessel is observed on the PPI scope bearing 135° T at a range of 7 miles. At 1940 the vessel observed bears 123° T at a range of 3 miles.

(1) Assuming that both vessels maintain course and speed, determine the distance between them at the closest point of approach.

(2) Determine the course and speed of the vessel observed.

A. (1) 1.1 miles (at 2008).

(2) 021.2° and 8.7 knots.

Q. Given the following azimuth angles:

(a) N. 28° E.
(b) N. 165° W.
(c) S. 33° E.
(d) S. 98° W.

Required: The azimuths.

A. (a) 028°
(b) 195°
(c) 147°
(d) 278°

Q. What is meant by "the precession of the equinoxes"? State its causes.

A. "The precession of the equinoxes" is the conical motion of the earth's axis about the vertical to the plane of the ecliptic, caused by the attractive force of the sun, moon, and other planets on the equatorial protuberance of the earth. The resultant motion is westward along the ecliptic at the rate of about 50.'3 per year. (H. O. 220.)

Q. A vessel whose date is 6 June, while in East Longitude, crosses the International Dateline on an east bound course at 1400 Zone Time.

(a) What change does she make in her local date?

(b) What is the date and time at Greenwich when she crosses the line?

A. (a) The date is changed to 5 June.

(b) The date and time at Greenwich is 6 June, 0200.

Q. Your vessel is on course 140° True at a speed of 10 knots.

At 0300, a vessel is observed on the PPI scope bearing 160° True at a range of 10 miles.

At 0312, the vessel is observed bearing 163° True at a range of 7 miles.

(a) Assuming that both your vessel and the vessel observed maintain course and speed, determine the distance between your vessel and the vessel observed at their closest point of approach.

(b) Determine the course and speed of the vessel observed.

(c) Determine the course at 0318 which will clear the other vessel by 3 miles in the minimum length of time without change in your speed.

A. (a) The distance between your vessel and the vessel observed at the closest point of approach, assuming that course and speed were held, would be 1.2 miles (at 0339).

(b) The course of the vessel observed is 355.6° True. The speed of the vessel observed is 5.9 knots.

(c) The course at 0318, which will clear the other vessel by 3 miles in the minimum length of time without change in your speed, is 211.4°. (Without allowing for advance and transfer.)

Q. Your vessel is on a course of 260° True at a speed of 9 knots.

At 1600 a vessel is observed on the PPI scope bearing 230° True at a range of 7 miles.

At 1606 the vessel is observed bearing 233° True at a range of 5 miles.

(a) Assuming that both your vessel and the vessel observed maintain course and speed, determine the distance between your vessel and the vessel observed at their closest point of approach.

(b) Determine the course and speed of the vessel observed.

(c) Determine the course at 1609 which will clear the other vessel by 2 miles in the minimum length of time without changing your speed.

A. (a) The distance between your vessel and the vessel observed at the closest point of approach, assuming that course and speed were maintained, would be 0.84 miles (at 1621).

(b) The course of the vessel observed is 020.0°.

The speed of the vessel observed is 14.2 knots.

(c) 214.0°.

Q. Along what line is the value of microseconds in miles the least; i. e., where does the loran reading give the greatest positional accuracy?

A. Along the base line.

## CASUALTIES TO VESSELS—OTHER THAN PLEASURE VESSELS—FISCAL YEAR 1959

### 1 July 1958–30 June 1959

| | Groundings | Foundrings, capsizings, sinkings | Collisions with vessel | Collisions with objects other than vessels | Fires and explosions | Heavy weather damage | Material failure | Cargo damage, no damage to vessel | Undetermined or insufficient information | Casualty not otherwise classified | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Number of vessel casualties | 503 | 171 | 434 | 486 | 194 | 51 | 189 | 7 | 2 | 25 | 2,062 |
| Number of vessels involved | 567 | 172 | 1,038 | 619 | 218 | 54 | 208 | 8 | 2 | 26 | 2,912 |
| Number of inspected vessels involved | 329 | 14 | 353 | 351 | 42 | 44 | 158 | 4 | 1 | 14 | 1,310 |
| Number of uninspected vessels involved | 238 | 158 | 685 | 268 | 176 | 10 | 50 | 4 | 1 | 12 | 1,602 |
| Types of vessels involved passenger: | | | | | | | | | | | |
| Subchapter "H" | 12 | | 21 | 22 | | 2 | 11 | | | 1 | 69 |
| Subchapter "T" | 6 | 5 | 13 | 6 | 2 | 1 | | | | | 33 |
| Freight: | | | | | | | | | | | |
| Ships | 190 | 4 | 111 | 188 | 17 | 29 | 86 | 4 | 1 | 13 | 643 |
| Barges | 28 | 43 | 142 | 75 | 3 | | 10 | 2 | | 3 | 306 |
| Tank: | | | | | | | | | | | |
| Ships | 92 | 1 | 71 | 74 | 3 | 11 | 57 | | | | 309 |
| Barges | 27 | 3 | 125 | 60 | 20 | 1 | 4 | | | | 240 |
| Public | | | 27 | 4 | 2 | | 1 | | | | 34 |
| Towing: | | | | | | | | | | | |
| Inspected | 2 | 1 | 12 | 1 | | | | | | | 16 |
| Uninspected | 64 | 18 | 250 | 129 | 36 | 2 | 13 | 1 | | 1 | 514 |
| Fishing (commercial) | 100 | 73 | 98 | 30 | 97 | 8 | 19 | | 1 | 3 | 429 |
| Motorboats (commercial) up to 65' in length uninspected | 3 | 13 | 29 | 7 | 15 | | 1 | 1 | | 1 | 70 |
| Foreign flag | 34 | | 102 | 12 | 3 | | 3 | | | 2 | 156 |
| Miscellaneous | 9 | 11 | 37 | 11 | 20 | | 3 | | | 2 | 93 |
| Property damage: | | | | | | | | | | | |
| Excess $1,500 | 240 | 155 | 479 | 364 | 188 | 40 | 154 | 3 | 2 | 20 | 1,645 |
| Under $1,500 | 327 | 17 | 559 | 255 | 30 | 14 | 54 | 5 | | 6 | 1,267 |
| Vessels totally lost: | | | | | | | | | | | |
| Inspected | 5 | 4 | 4 | 4 | 8 | 2 | | | | | 27 |
| Uninspected | 46 | 63 | 10 | 15 | 86 | 1 | 8 | | 1 | 3 | 232 |
| Lives lost in vessel casualties: | | | | | | | | | | | |
| Passengers: | | | | | | | | | | | |
| Inspected | | | | | | | | | | | |
| Uninspected | | | 3 | | | | | | | | 3 |
| Crew: | | | | | | | | | | | |
| Inspected | | 33 | 23 | | 1 | | 2 | | | 1 | 60 |
| Uninspected | 26 | 59 | 7 | 1 | 18 | | 5 | | 3 | 2 | 121 |
| Others: | | | | | | | | | | | |
| Inspected | | | | | 2 | | 3 | | | | 5 |
| Uninspected | | 6 | | | 1 | | 4 | | | | 11 |
| Number of casualties due to personnel fault: | | | | | | | | | | | |
| Inspected | 68 | 3 | 78 | 52 | 8 | 1 | 20 | | | 8 | 237 |
| Uninspected | 81 | 18 | 214 | 41 | 26 | | 2 | | | 2 | 385 |

| Deaths not involving casualty to vessel: | |
|---|---|
| Natural causes | 174 |
| Homicide | 3 |
| Suicide | 34 |
| Disappearance and undetermined | 10 |
| Personal accidents | 242 |

## MERCHANT MARINE STATISTICS

There were 937 vessels of 1,000 gross tons and over in the active oceangoing U.S. merchant fleet on September 1, 1959, according to the Maritime Administration. This was 12 fewer than the number active on August 1, 1959.

There were 35 Government-owned and 902 privately owned ships in active service. These figures did not include privately owned vessels temporarily inactive, or Government-owned vessels employed in loading grain for storage. They also exclude 26 vessels in the custody of the Departments of Defense, State, and Interior.

There was a decrease of 15 active vessels and an increase of 13 inactive vessels in the privately owned fleet. One freighter, the *Attleboro Victory*, was returned from foreign to U.S. flag. Three freighters, the *Island Mail*, *China Mail*, and *Ocean Mail*, were traded in to the Government. This decreased the total privately owned fleet by 20 to 1,017.

Of the 115 privately owned inactive vessels, 41 dry cargo ships and 60 tankers were laid up for lack of employment, 16 more than on August 1. The others were undergoing repair or conversion.

The Maritime Administration's active fleet increased by 3, while its inactive fleet decreased by 17. Twenty Liberty ships were sold for scrap. Three vessels were turned over by the Navy to the Administration for layup in the National Defense Reserve Fleet and three freighters were traded in by a private operator, making a net loss of 14 in the Administration's fleet, or a total of 2,080. The total U.S. merchant fleet, active and inactive, decreased by 16 to 3,097.

Three cargo ships were ordered by American Mail Line, and one bulk carrier conversion by Gibbs Corp. Two conversions, a Mariner and a tanker, were completed. The total of large merchant ships on order or under construction in U.S. shipyards increased by 2 to 74.

Seafaring jobs on active oceangoing U.S.-flag ships of 1,000 gross tons and over, excluding civilian seamen manning Military Sea Transportation Service ships, were 50,659. Prospective officers in training in Federal and State nautical schools numbered 2,085.

# STATISTICAL SUMMARY OF PERSONAL INJURIES AND DEATHS ABOARD COMMERCIAL VESSELS

## 1 July 1958–30 June 1959

| PERSONNEL CASUALTIES | | | HUMAN | | | | | | | ENVIRONMENT | | | | | OTHER | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Deaths | Injuries | Reported during period of— | Intoxication | Physical deficiency | Unsafe movement (running, jumping, etc.) | Psychological (immaturity, insanity) | Unsafe practice | Law violation | Other human errors | Weather conditions | Poor maintenance (housekeeping) | Inadequate lighting | Inadequate rails, guards, etc. | Other | Failure approved equipment or material | Failure unapproved equipment or material | Supervision inadequate | Life preservers insufficient | Lack of tools/ equipment | Lack of protective gear | Insufficient information to classify as to cause | Miscellaneous causes |
| Totals | | Classification | | | | | | | | | | | | | | | | | | | | |
| 9 | ------ | Disappearance | -- | -- | ---- | ---- | -- | -- | -- | -- | ---- | -- | ---- | -- | ---- | ---- | ---- | ---- | ---- | ---- | 6 | ---- |
| 20 | ------ | Drowning (Other than falls) | 2 | -- | ---- | 1 | 6 | -- | 6 | 4 | ---- | -- | ---- | -- | ---- | ---- | ---- | ---- | ---- | ---- | 1 | ---- |
| 7 | 109 | Slips and Falls: Ladders | 7 | -- | 4 | ---- | 15 | -- | 58 | 3 | 3 | -- | 2 | 7 | ---- | 5 | ---- | ---- | ---- | ---- | 12 | ---- |
| 10 | 24 | Gangways | 4 | -- | 2 | ---- | 2 | -- | 15 | -- | 2 | 1 | 4 | -- | ---- | ---- | ---- | ---- | ---- | ---- | 4 | ---- |
| 2 | 122 | On deck | 5 | 3 | 2 | 1 | 7 | -- | 12 | 17 | 7 | -- | ---- | 30 | ---- | 2 | ---- | ---- | ---- | ---- | 8 | ---- |
| --- | 66 | Other—same level | 1 | 1 | ---- | ---- | 4 | -- | 36 | 5 | 7 | -- | 1 | 7 | ---- | 2 | ---- | ---- | ---- | ---- | 1 | 1 |
| 101 | 14 | Falls from vessel: Into water | 8 | -- | 3 | ---- | 22 | -- | 24 | 12 | ---- | 1 | 2 | 14 | ---- | 3 | 1 | ---- | 1 | ---- | 20 | 4 |
| 1 | 1 | Other | -- | -- | ---- | ---- | -- | -- | -- | -- | ---- | -- | ---- | 1 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 1 |
| 8 | 12 | Falls into hold, tank | -- | -- | ---- | ---- | 4 | -- | 7 | -- | ---- | 2 | 1 | 1 | ---- | ---- | ---- | ---- | ---- | ---- | 5 | ---- |
| 5 | 105 | Falls — Other — different level | 8 | 1 | 7 | 2 | 33 | -- | 31 | 4 | 1 | 2 | ---- | 19 | ---- | ---- | ---- | ---- | ---- | ---- | 1 | 1 |
| 7 | 99 | Struck by— Falling object | -- | -- | 1 | ---- | 24 | -- | 38 | 13 | 1 | -- | ---- | 11 | ---- | 13 | 2 | ---- | ---- | ---- | 3 | ---- |
| 1 | 19 | Flying object | -- | -- | ---- | ---- | 4 | -- | 6 | 1 | ---- | -- | ---- | 2 | ---- | 4 | ---- | ---- | 1 | 1 | 1 | ---- |
| 6 | 70 | Moving object (other than vessel) | -- | -- | ---- | ---- | 14 | -- | 36 | 3 | 1 | -- | ---- | 17 | ---- | 4 | ---- | ---- | ---- | ---- | 1 | ---- |
| 0 | 8 | Boat or ship | -- | -- | ---- | ---- | 7 | -- | 1 | -- | ---- | -- | ---- | -- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| 2 | 0 | Exposure | -- | -- | ---- | ---- | -- | -- | -- | 2 | ---- | -- | ---- | -- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| 8 | 1 | Asphyxiation | 1 | -- | ---- | ---- | 1 | -- | 3 | -- | 1 | -- | ---- | -- | ---- | 1 | 2 | ---- | ---- | ---- | ---- | ---- |
| 1 | 82 | Struck against | -- | -- | 2 | ---- | 2 | -- | 36 | 19 | 3 | -- | ---- | 19 | ---- | 1 | ---- | ---- | ---- | ---- | 1 | ---- |
| --- | 2 | Cargo handling | -- | -- | ---- | ---- | -- | -- | -- | -- | ---- | -- | ---- | -- | ---- | 2 | ---- | ---- | ---- | ---- | ---- | ---- |
| 1 | 58 | Machinery—tools | -- | -- | ---- | ---- | 15 | -- | 21 | 1 | 1 | -- | ---- | 5 | ---- | 12 | 1 | ---- | ---- | ---- | ---- | 3 |
| 21 | 4 | Burns | -- | -- | ---- | ---- | 8 | -- | 5 | -- | ---- | -- | ---- | 5 | ---- | 7 | ---- | ---- | ---- | ---- | ---- | ---- |
| --- | 46 | Scalds | -- | -- | ---- | ---- | 14 | -- | 16 | 2 | ---- | -- | ---- | 6 | ---- | 4 | ---- | ---- | 1 | ---- | 1 | 2 |
| 2 | 4 | Electric shock | -- | -- | ---- | ---- | -- | -- | -- | -- | ---- | -- | ---- | 1 | ---- | 5 | ---- | ---- | ---- | ---- | ---- | ---- |
| 6 | 44 | Lines, caught in | -- | -- | ---- | ---- | 18 | -- | 13 | 1 | ---- | -- | 1 | 14 | ---- | ---- | ---- | ---- | ---- | ---- | 2 | 1 |
| --- | 74 | Pinching—crushing | 1 | -- | ---- | ---- | 12 | -- | 32 | 11 | ---- | -- | ---- | 9 | ---- | 4 | ---- | ---- | ---- | ---- | 5 | ---- |
| --- | 17 | Heavy weather | -- | -- | ---- | ---- | 13 | -- | -- | -- | ---- | -- | ---- | -- | ---- | 4 | ---- | ---- | ---- | ---- | ---- | ---- |
| --- | 39 | Overexertion | -- | -- | 1 | ---- | 1 | -- | 31 | -- | 1 | -- | ---- | 2 | ---- | ---- | ---- | ---- | ---- | ---- | 2 | 1 |
| --- | 81 | Sprains and strains | 2 | 1 | 2 | ---- | 8 | -- | 48 | -- | ---- | -- | ---- | 9 | ---- | ---- | ---- | ---- | ---- | ---- | 11 | ---- |
| --- | 31 | Cuts, punctures, etc. | -- | -- | 1 | ---- | 12 | -- | 12 | -- | ---- | -- | ---- | 5 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 1 |
| --- | 19 | Galley accidents | -- | -- | ---- | ---- | 4 | -- | 15 | -- | ---- | -- | ---- | -- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| 0 | 68 | Fights | -- | -- | ---- | ---- | -- | -- | -- | -- | ---- | -- | ---- | -- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| 1 | 15 | Unknown causes | 1 | -- | ---- | ---- | 1 | -- | 2 | -- | ---- | -- | ---- | -- | ---- | ---- | ---- | ---- | ---- | 3 | 9 | ---- |
| 23 | 9 | Not otherwise classified | 3 | -- | ---- | 2 | 5 | -- | 14 | -- | ---- | -- | ---- | -- | ---- | 2 | ---- | ---- | ---- | ---- | ---- | 6 |
| 242 | 1,243 | Total | 43 | 6 | 25 | 6 | 256 | -- | 548 | 98 | 28 | 6 | 11 | 184 | ---- | 75 | 6 | ---- | 3 | 4 | 94 | 21 |

# UNITED STATES COAST GUARD

ADDRESS REPLY TO:
COMMANDANT
U.S. COAST GUARD
HEADQUARTERS
WASHINGTON 25, D.C.

MVI
17 August 1959

Commandant's Action
on
Marine Board of Investigation; collision between the SS *Constitution* and tank vessel *Jalanta* (Norwegian), vicinity of Ambrose Light Vessel, 1 March 1959

The record of the Marine Board of Investigation convened to investigate subject casualty, together with its Findings of Fact, Conclusions, and Recommendations has been reviewed.

At 1040 e.s.t. 1 March 1959 the U.S. passenger vessel SS *Constitution* collided in dense fog with the Norwegian motor tanker *Jalanta* approximately 5 miles southeast of Ambrose Light Vessel.

The *Constitution* was approaching Ambrose Light Vessel on a northerly course en route from Newport News, Va., to New York with 116 crewmembers and 33 additional persons.

At approximately 0955 fog was encountered. The Master began conning the vessel by radar and fog signals were commenced. The vessel was making slightly more than 18 knots and this speed was maintained. The radar target later identified to be the *Jalanta* was first sighted 5° on the port bow 7½ miles distant. Based on continued observations, the Master concluded that the target was on an opposite parallel course but no plot was maintained. According to the course recorder, the *Constitution* began coming right easily 8 minutes before the collision from a heading of 000° T. and was steadied briefly on about 035° T. When the target was 2 miles away on the port bow it was lost in the sea return on the radarscope. At about 1037 the fog signal of another vessel was heard on the port bow. Two minutes later the signal was again heard on the port bow at which time speed was reduced to 11.1 knots. Almost immediately the bow of the *Jalanta* appeared out of the fog ¼ mile off fine on the port bow on a course at right angles to that of the *Constitution*. Full astern and hard right rudder were immediately ordered on the *Constitution* but were not sufficient to prevent the collision.

The *Jalanta*, in ballast but not gas free, had taken departure at about 1000 approximately 2 miles off Ambrose en route to Aruba, DWI, and was headed southeasterly. At 1005 visibility began to decrease. Fog signals were commenced, speed was reduced to half ahead and a course of 144° T. was set and maintained up to the time of collision. According to the Master, two radar targets were observed; one at about 4½ miles and the other about 2¼ miles, both to starboard. The record contains no further mention of the target at 4½ miles; however, the target at 2¼ miles appeared to be on an opposite parallel course. Its fog signal was heard and it subsequently passed an estimated ½ to ¾ of a mile off the starboard side. Shortly thereafter a third radar target appeared 2¼ miles on the port side. The bearing of this target opened to the left and soon disappeared in the sea return when about 2 miles away. No fog signals were heard from this vessel, but it was estimated to have subsequently passed about 1½ miles off. From that time forward, sea return obscured all radar targets. A few minutes before the collision, while proceeding slow ahead at about 5 knots, the Mate on watch on the starboard wing of the bridge reported hearing a fog signal abeam to starboard. Speed was reduced to dead slow ahead and the Master went out on the wing. Shortly thereafter another whistle signal was heard apparently forward of the starboard beam and the engines were stopped. Within moments the bow of the *Constitution* appeared out of the fog about ¼ of a mile away forward of the beam heading approximately right angles to the *Jalanta's* course. The engine was ordered full astern and the vessel was estimated to be about dead in the water at the time of impact.

The bow of the *Constitution* almost completely severed the bow of the *Jalanta* forward of her pilothouse, and approximately 25 minutes later the bow finally broke off. Considerable hull damage was sustained by the bow of the *Constitution;* however, there were no lives lost and no injuries to any persons. Both vessels proceeded to New York under their own power and the bow of the *Jalanta* was later towed in.

## REMARKS

Concurring with the Board it is considered that the primary cause of this casualty was the failure of the SS *Constitution* to go at a moderate speed in a fog and failure to stop her engines and navigate with caution upon hearing forward of her beam the fog signal of a vessel, the position of which was not ascertained. These failures were aggravated by the fact that the radar provided timely notice of the proximity of the other vessel. Improper interpretation of the radar aboard the *Constitution* was also a factor and one which could have been avoided by the simple expedient of plotting ranges and bearings.

The failure of the *Jalanta* to fix the position from which she took departure and to accurately maintain deck and engine room bell books reflects unfavorably on her watchkeeping and precludes a more accurate and detailed reconstruction of her navigation. In addition, the testimony of the Master concerning the target observed on the radar at 4½ miles on the starboard side raises obvious unanswered questions as to whether or not that target was in fact the *Constitution*. Despite these doubts it is considered that the record amply supports the conclusion that the *Jalanta's* speed in the fog was moderate and that she otherwise met her duty by stopping upon hearing the fog signal forward of the beam.

The fact that on both vessels sea return adversely affected radar operations reemphasizes that radar can be relied on only as an aid to navigation and its presence on board does not relieve the mariner of his statutory responsibilities under the rules to prevent collisions.

The question of sealanes, of which local approach procedures would necessarily be a part, has been under review in the form of preparations for the forthcoming International Safety of Life at Sea Convention. Accordingly, the Board's suggestion for a system of vessel guidance and control at harbor approaches has been referred to the appropriate subcommittee for its information.

With respect to the Board's recommendation that a waterproof life preserver storage box be required in the vicinity of the bow on all vessels, desirable as it may have been from the *Jalanta*'s standpoint, experience in collision cases has shown that such an installation would be of limited value to the lookout on the colliding vessel. In any case, where hazards are present, whether they be natural or operational, it is the responsibility of the Master or officer of the watch to consider the advisability of requiring the lookout to don a life preserver before going on watch.

Subject to the foregoing remarks, the record of the Marine Board of Investigation is approved.

A. C. RICHMOND,
Vice Admiral, U.S. Coast Guard,
*Commandant.*

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# 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 33—NAVIGATION AND NAVIGABLE WATERS

### Chapter I—Coast Guard, Department of the Treasury

[CGFR 59-35]

### EXEMPTING ADVANCE NOTICE OF TIME OF ARRIVAL OF VESSELS NUMBERED BY A STATE; STANDARDS FOR FIRE EXTINGUISHING EQUIPMENT

By Executive Order 10173 the President found that the security of the United States is endangered by reason of subversive activities and prescribed certain regulations relating to the safeguarding against destruction, loss, or injury from sabotage or other subversive acts, accidents, or other causes of similar nature of vessels, harbors, ports, and waterfront facilities in the United States, and all territory and waters, continental or insular, subject to the jurisdiction of the United States exclusive of the Canal Zone.

Pursuant to the authority of 33 CFR 6.04-8 an Executive Order 10173 (15 F.R. 7007; 3 CFR, 1950 Supp.) the Captain of the Port may supervise and control the movement of any vessel and shall take full or partial possession or control of any vessel or any part thereof within the territorial waters of the United States under his jurisdiction whenever it appears to him that such action is necessary in order to secure such vessel from damage or injury or to prevent damage or injury to any waterfront facility or waters of the United States or to secure the observance of rights and obligations of the United States.

The provisions of 33 CFR 124.10 set forth the requirements regarding the advance notice of vessels estimated time of arrival to be furnished to the Captain of the Port. The purpose of the amendment to 33 CFR 124.10(g)(2) is to state that the requirements of this section do not apply to vessels which are numbered by any State pursuant to the Federal Boating Act of 1958 (Public Law 85-911; 46 U.S.C. 527-527h); i.e., vessels numbered by a State are exempt from filing a notice of estimated time of arrival with the Captain of the Port.

The amendment to 33 CFR 126.15(j), regarding fire extinguishing equipment on waterfront facilities, is editorial in nature and substitutes the new title of the standards issued by the National Fire Protection Association by changing the phrase from "Standards for First Aid Fire Appliances" to "Standards for the Installation, Maintenance and Use of Portable Fire Extinguishers."

Because of the national emergency declared by the President, it is found that compliance with the Administrative Procedure Act (respecting notice of proposed rule making, public rule making procedures thereon, and effective date requirements thereof) is impracticable and contrary to the public interest.

By virtue of the authority vested in me as Commandant, United States Coast Guard, by Executive Order 10173 as amended by Executive Orders 10277 and 10352, I hereby prescribe the following amendments which shall become effective upon the date of publication of this document in the Federal Register:

#### SUBCHAPTER K—SECURITY OF VESSELS

### PART 124—CONTROL OVER MOVEMENT OF VESSELS

Section 124.10(g)(2) is amended to read as follows:

**§ 124.10 Advance notice of vessel's time of arrival to Captain of the port.**

* * * * *

(g) * * *

(2) Vessels which are numbered by the Coast Guard, or by any State pursuant to the provisions of the Federal Boating Act of 1958 (Public Law 85-911; 46 U.S.C. 527-527h).

(Sec. 1, 40 Stat. 220, as amended; 50 U.S.C. 191, E.O. 10173, 15 F.R. 7005, 3 CFR, 1950 Supp., E.O. 10277, 16 F.R. 7537, 3 CFR, 1951 Supp., E.O. 10352, 17 F.R. 4607, 3 CFR, 1952 Supp.)

#### SUBCHAPTER L—SECURITY OF WATERFRONT FACILITIES

### PART 126—HANDLING OF EXPLOSIVES OR OTHER DANGEROUS CARGOES WITHIN OR CONTIGUOUS TO WATERFRONT FACILITIES

Section 126.15(j) is amended to read as follows:

**§ 126.15 Conditions for designation as designated waterfront facility.**

* * * * *

(j) *Fire extinguishing equipment.* That fire extinguishing appliances are made available in adequate quantities, locations, and types; that first aid fire appliances are installed and maintained in accordance with accepted safe practices (conformity with the requirements prescribed in the current "Standards for the Installation, Maintenance and Use of Portable Fire Extinguishers," issued by the National Fire Protection Association, shall be deemed evidence of compliance with such accepted safe practices); that fire extinguishing equipment, fire

alarm systems and devices, and fire doors and other safety equipment are maintained in good operating condition at all times; that provision is made so that, when hazards arise which require such precaution, emergency hose lines will be led out and other emergency fire-fighting equipment will be placed immediately adjacent to such hazards.

(Sec. 1, 40 Stat. 220, as amended; 50 U.S.C. 191, E.O. 10173, 15 F.R. 7005, 3 CFR, 1950 Supp., E.O. 10277, 16 F.R. 7537, 3 CFR, 1951 Supp., E.O. 10352, 17 F.R. 4607, 3 CFR, 1952 Supp.

Dated: September 3, 1959.

[SEAL] A. C. RICHMOND,
*Vice Admiral,*
*U.S. Coast Guard, Commandant.*

[F.R. Doc. 59-7832; Filed, Sept. 18, 1959; 8:47 a.m.]

# TITLE 46—SHIPPING

## Chapter I—Coast Guard, Department of the Treasury

[CGFR 59-36]

SUBCHAPTER B—MERCHANT MARINE OFFICERS AND SEAMEN

## PART 12—CERTIFICATION OF SEAMEN

### Subpart 12.02—General Requirements for Certification

ADMINISTERING OATHS REQUIRED BEFORE ISSUING MERCHANT MARINER'S DOCUMENTS

Before the Coast Guard may issue a Merchant Mariner's Document to an applicant the law in subsection 672(g) of Title 46 U.S. Code, states "* * * such certificates shall not issue before oath has been taken before a Coast Guard official that the applicant therefor will faithfully and honestly perform all the duties required of him by law, and carry out the lawful orders of his superior officers on shipboard * * *" The procedure has been to have the administration of these oaths performed by the Officer in Charge, Marine Inspection, whether military or civilian, or commissioned officers on active duty. Since the arrangement of certain field offices separate the licensing unit from the certificating unit, delays have occurred in the issuing of Merchant Mariner's Documents when no commissioned officer was available to administer the required oaths. Therefore, the amendment to 46 CFR 12.02-15 substitutes the word "official" for the word "officer" so that the administration of these oaths may be performed by authorized Coast Guard military or civilian personnel.

Because this amendment to 46 CFR 12.02-15 is a change in procedures, it is hereby found that compliance with the Administrative Procedure Act (respecting notice of proposed rule making, public rule making procedures thereon, and effective date requirements thereof) is deemed to be unnecessary.

By virtue of the authority vested in me as Commandant, United States Coast Guard, by Treasury Department Orders 120, dated July 31, 1950 (15 F.R. 6521), 167-14, dated November 26, 1954 (19 F.R. 8026), and CGFR 56-28, dated July 24, 1956 (21 F.R. 5659) to promulgate regulations in accordance with the statutes cited with the regulations below, the following amendment to § 12.02-15 is prescribed and shall become effective upon the date of publication of this document in the Federal Register:

**§ 12.02-15 Oath requirement.**

An applicant for a certificate of service for a rating other than as able seaman or qualified member of the engine department shall take oath before an Officer in Charge, Marine Inspection, or other official authorized to give such oath that he will faithfully and honestly perform all the duties required of him by law and carry out all lawful orders of his superior officers on shipboard.

(R.S. 4405, 4417a, 4488, 4551, as amended, sec. 13, 38 Stat. 1169, as amended, secs. 1, 2, 49 Stat. 1544, sec. 7, 49 Stat. 1936, sec. 1, 52 Stat. 753, 55 Stat. 579; 46 U.S.C. 375, 391a, 481, 643, 672, 367, 689, 672b, 672-1, 672-2)

Dated: August 31, 1959.

[SEAL] A. C. RICHMOND,
*Vice Admiral, U.S. Coast Guard,*
*Commandant.*

[F.R. Doc. 59-7429; Filed, Sept. 4, 1959; 8:49 a.m.]

[CGFR 59-21]

## VESSEL INSPECTION

### Miscellaneous Amendments

Pursuant to the notice of proposed rule making published in the Federal Register on April 9, 1959 (24 F.R. 2742-2751), and the Merchant Marine Council Public Hearing Agenda CG-249, dated April 27, 1959, the Merchant Marine Council held a Public Hearing on April 27, 1959, for the purpose of receiving comments, views and data. The proposals considered were identified as Items I through XII, inclusive. The proposed regulations were set forth in detail in the Agenda, CG-249, and a summary of the proposals was set forth in the previously mentioned Federal Register of April 9, 1959, as Item II thru VI.

This document is the eighth of a series regarding the regulations and actions considered at the April 27, 1959, Public Hearing and Annual Session of the Merchant Marine Council.

(Federal Register of September 5, 1959)

SUBCHAPTER S—NUMBERING OF UNDOCUMENTED VESSELS, STATISTICS ON NUMBERING, AND "BOATING ACCIDENT REPORTS" AND ACCIDENT STATISTICS

[CGFR 59-37]

## PART 172—NUMBERING REQUIREMENTS UNDER ACT OF JUNE 7, 1918

### Subpart 172.25—Termination Requirements

MINNESOTA SYSTEM OF NUMBERING APPROVED

Acting under the authority delegated by Treasury Department Order 167-32, dated September 23, 1958 (23 F.R. 7605), the Commandant, United States Coast Guard, on August 19, 1959, approved the Minnesota system for the the numbering of motorboats, which was established pursuant to the Federal Boating Act of 1958.

As provided in this approval, the Minnesota system shall be operative on and after Monday, August 24, 1959. On that date the authority to number motorboats principally used in the State of Minnesota will pass to that State and simultaneously the Coast Guard will discontinue numbering such motorboats. Those

**Hmmm... Any Minute Now!**

Courtesy *The Range Light.*

motorboats presently numbered should continue to display the Coast Guard number until renumbered by Minnesota. On and after August 24, 1959, all reports of "boating accidents" which involve motorboats numbered in Minnesota will be required to be reported to the nearest sheriff of the county in which the accident occurred, pursuant to the Minnesota Boat and Water Safety Law (S.F. No. 371, Chapter 592, Laws of Minnesota for 1959, approved 24 April 1959).

Because § 172.25–15(a)(4), as set forth in this document, is an informative rule about official actions performed by the Commandant, it is hereby found that compliance with the Administrative Procedure Act (respecting notice of proposed rule making, public rule making procedures thereon, and effective date requirements thereof) is unnecessary.

By virtue of the authority vested in me as Commandant, United States Coast Guard, by Treasury Department Orders 120, dated July 31, 1950 (15 F.R. 6521), and 167–17, dated June 29, 1955 (20 F.R. 4976), to promulgate rules in accordance with the statutes cited with the informative rule below, the following § 172 25–15 (a)(4) is prescribed and shall be in effect on and after the date set forth therein:

**§ 172.25–15 Effective dates for approved State systems of numbering.**

(a) * * *

(4) Minnesota—August 24, 1959.

(Sec. 3, 60 Stat. 238, and sec. 633, 63 Stat. 545; 5 U.S.C. 1002, 14 U.S.C. 633)

Dated: August 31, 1959.

[SEAL] A. C. RICHMOND,
*Vice Admiral, U.S. Coast Guard, Commandant.*

[F.R. Doc. 59–7430; Filed, Sept. 4, 1959; 8:49 a.m.]

# TITLE 46—SHIPPING

## Chapter I—Coast Guard, Department of the Treasury

### SUBCHAPTER S—NUMBERING OF UNDOCUMENTED VESSELS, STATISTICS ON NUMBERING, AND "BOATING ACCIDENT REPORTS" AND ACCIDENT STATISTICS

[CGFR 59–38]

## PART 172—NUMBERING REQUIREMENTS UNDER ACT OF JUNE 7, 1918

### Subpart 172.25—Termination Requirements

NORTH CAROLINA SYSTEM OF NUMBERING APPROVED

Acting under the authority delegated by Treasury Department Order 167–32, dated September 23, 1958 (23 F.R. 7605), the Commandant, United States Coast Guard, on August 27, 1959, approved the North Carolina system for the numbering of motorboats, which was established pursuant to the Federal Boating Act of 1958.

As provided in this approval, the North Carolina system shall be operative on and after Friday, January 1, 1960. On that date the authority to number motorboats principally used in the State of North Carolina will pass to that State and simultaneously the Coast Guard will discontinue numbering such motorboats. Those motorboats presently numbered should continue to display the Coast Guard number until renumbered by North Carolina. On and after January 1, 1960, all reports of "boating accidents" which involve motorboats numbered in North Carolina will be required to be reported to the Wildlife Resources Commission, Raleigh, North Carolina, pursuant to the North Carolina Boating Safety Act of 1959 (N.C.S.L. 1959 C. 1064).

Because § 172.25–15(a)(5), as set forth in this document, is an informative rule about official actions performed by the Commandant, it is hereby found that compliance with the Administrative Procedure Act (respecting notice of proposed rule making, public rule making procedures thereon, and effective date requirements thereof) is unnecessary.

By virtue of the authority vested in me as Commandant, United States Coast Guard, by Treasury Department Orders 120, dated July 31, 1950 (15 F.R. 6521), and 167–17, dated June 29, 1955 (20 F.R. 4976), to promulgate rules in accordance with the statutes cited with the informative rule below, the following § 172.25–15(a)(5) is prescribed and shall be in effect on and after the date set forth therein:

**§ 172.25–15 Effective dates for approved State systems of numbering.**

(a) * * *

(5) North Carolina—January 1, 1960.


(Sec. 3, 60 Stat. 238, and sec. 633, 63 Stat. 545; 5 U.S.C. 1002, 14 U.S.C. 633)

Dated: September 9, 1959.

[SEAL] A. C. RICHMOND,
*Vice Admiral, U.S. Coast Guard, Commandant.*

[F.R. Doc. 59–7732; Filed, Sept. 16, 1959; 8:46 a.m.]

[CGFR 59–39]

## PART 172—NUMBERING REQUIREMENTS UNDER ACT OF JUNE 7, 1918

### Subpart 172.25—Termination Requirements

SOUTH CAROLINA SYSTEM OF NUMBERING APPROVED

Acting under the authority delegated by Treasury Department Order 167–32, dated September 23, 1958 (23 F.R. 7605), the Commandant, United States Coast Guard, on August 27, 1959, approved the South Carolina system for the numbering of motorboats, which was established pursuant to the Federal Boating Act of 1958.

As provided in this approval, the South Carolina system shall be operative on and after Friday, January 1, 1960. On that date the authority to number motorboats principally used in the State of South Carolina will pass to that State and simultaneously the Coast Guard will discontinue numbering such motorboats. Those motorboats presently numbered should continue to display the Coast Guard number until renumbered by South Carolina. On and after January 1, 1960, all reports of "boating accidents" which involve motorboats numbered in South Carolina will be required to be reported to the Division of Boating, South Carolina Wildlife Resources Department, Columbia, South Carolina, pursuant to the requirements of the South Carolina boating law (S.C. Act No. 253 of 1959).

Because § 172.25–15(a)(6), as set forth in this document, is an informative rule about official actions performed by the Commandant, it is hereby found that compliance with the Administrative Procedure Act (respecting notice of proposed rule making, public rule making procedures thereon, and effective date requirements thereof) is unnecessary.

By virtue of the authority vested in me as Commandant, United States Coast Guard, by Treasury Department Orders 120, dated July 31, 1950 (15 F.R. 6521), and 167–17, dated June 29, 1955 (20 F.R. 4976), to promulgate rules in accordance with the statutes cited with the informative rule below, the following § 172.25–15

(a) (6) is prescribed and shall be in effect on and after the date set forth therein:

§ 172.25–15 Effective dates for approved State systems of numbering.

(a) * * *

(6) South Carolina—January 1, 1960.

(Sec. 3, 60 Stat. 238, and sec. 633, 63 Stat. 545; 5 U.S.C. 1002, 14 U.S.C. 633)

Dated: September 9, 1959.

[SEAL] A. C. RICHMOND,
*Vice Admiral,*
*U.S. Coast Guard, Commandant.*

[F.R. Doc. 59–7733; Filed, Sept. 16, 1959: 8:46 a.m.]

# 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 September 3, 1959 (CGFR 59–34). 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 1 September to 30 September 1959, inclusive, for use on board vessels in accordance with the provisions of Part 147 (46 CFR 146–147) of the Dangerous Cargo Regulations are as follows:

## CERTIFIED

*E. I. du Pont de Nemours & Co.*, Wilmington 98, Del., Certificate No. 403, dated 10 September 1959, DU PONT MHFA–1 MARINE HEAVY FUEL ADDITIVE.

*Applied Consultants*, 1563 Choctaw Drive, Post Office Box 1526, Baton Rouge, La., Certificate No. 404, dated 10 September 1959, MIRA–KIL.

*Glo-Klen Co., Inc.*, 7050 North Clark Street, Chicago, Ill., Certificate No. 405, dated 14 September 1959, GLO–KLEN.

## AFFIDAVITS

The following affidavits were accepted during the period from 15 August 1959 to 15 September 1959:

*The Bastian-Blessing Co.*, 4201 West Peterson Avenue, Chicago, Ill., PIPE FITTINGS.

*Alco Products, Inc.*, 107 Gertrude Street, Latrobe, Pa., FORGINGS.[1]

[1] Affidavit covers additional products as this company is already listed in CG–190 for valves.

# MARINE SAFETY PUBLICATIONS AND PAMPHLETS

The following publications and pamphlets are available and may be obtained upon request from the nearest Marine Inspection Office of the United States Coast Guard. Date of each publication is indicated following title.

| CG No. | *Title of Publication* |
|---|---|
| 101 | Specimen Examinations for Merchant Marine Deck Officers. 7–1–58 |
| 108 | Rules and Regulations for Military Explosives and Hazardous Munitions. 8–1–58 |
| 115 | Marine Engineering Regulations and Material Specifications. 3–1–58 |
| 123 | Rules and Regulations for Tank Vessels. 4–1–58 |
| 129 | Proceedings of the Merchant Marine Council. Monthly |
| 169 | Rules of the Road—International—Inland. 5–1–59 |
| 172 | Rules of the Road—Great Lakes. 5–1–59 |
| 174 | A Manual for the Safe Handling of Inflammable and Combustible Liquids. 7–2–51 |
| 175 | Manual for Lifeboatmen and Able Seamen, Qualified Members of Engine Department, and Tankerman. 6–1–55 |
| 176 | Load Line Regulations. 9–2–58 |
| 182 | Specimen Examinations for Merchant Marine Engineer Licenses. 5–1–57 |
| 184 | Rules of the Road—Western Rivers. 5–1–59 |
| 190 | Equipment Lists. 4–1–58 |
| 191 | Rules and Regulations for Licensing and Certificating of Merchant Marine Personnel. 5–1–59 |
| 200 | Marine Investigation Regulations and Suspension and Revocation Proceedings. 7–1–58 |
| 220 | Specimen Examination Questions for Licenses as Master, Mate, and Pilot of Central Western Rivers Vessels. 4–1–57 |
| 227 | Laws Governing Marine Inspection. 7–3–50 |
| 239 | Security of Vessels and Waterfront Facilities. 7–1–58 |
| 249 | Merchant Marine Council Public Hearing Agenda. Annually |
| 256 | Rules and Regulations for Passenger Vessels. 3–2–59 |
| 257 | Rules and Regulations for Cargo and Miscellaneous Vessels. 3–2–59 |
| 258 | Rules and Regulations for Uninspected Vessels. 7–1–55 |
| 259 | Electrical Engineering Regulations. 9–2–58 |
| 266 | Rules and Regulation for Bulk Grain Cargo. 5–1–59 |
| 267 | Rules and Regulations for the Numbering of Undocumented Vessels and the Reporting of Boating Accidents. 5–1–59 |
| 268 | Rules and Regulations for Manning of Vessels. 9–3–57 |
| 269 | Rules and Regulations for Nautical Schools. 11–1–53 |
| 270 | Rules and Regulations for Marine Engineering Installations Contracted for Prior to July 1, 1935. 11–19–52 |
| 290 | Pleasure Craft. 7–1–59 |
| 293 | Miscellaneous Electrical Equipment List. 3–10–59 |
| 320 | Rules and Regulations for Artificial Islands and Fixed Structures on the Outer Continental Shelf. 1–2–57 |
| 323 | Rules and Regulations for Small Passenger Vessels. (Not More Than 65 Feet in Length) 6–1–58 |
| 329 | Fire Fighting Manual for Tank Vessels. 4–1–58 |

Official changes in rules and regulations are published in the Federal Register, which is printed daily except Sunday, Monday and days following holidays. The Federal Register is a sales publication and may be obtained from the Superintendent of Documents, Government Printing Office, Washington 25, D.C. It is furnished by mail to subscribers for $1.50 per month or $15 per year, payable in advance. Individual copies desired may be purchased as long as they are available. The charge for individual copies of the Federal Register varies in proportion to the size of the issue and will be 15 cents unless otherwise noted on the table of changes below.

### Changes Published During September 1959

The following have been modified by Federal Register:

CG–190 Federal Register, September 3, 1959.

CG–115, 123, 176, 191, 256, 259, 267, 269, and 323 Federal Register, September 5, 1959.

CG–267 Federal Register, September 17, 1959.

CG–239 Federal Register, September 19, 1959.

# TABULATION OF UNSAFE PRACTICES

## January through June 1959

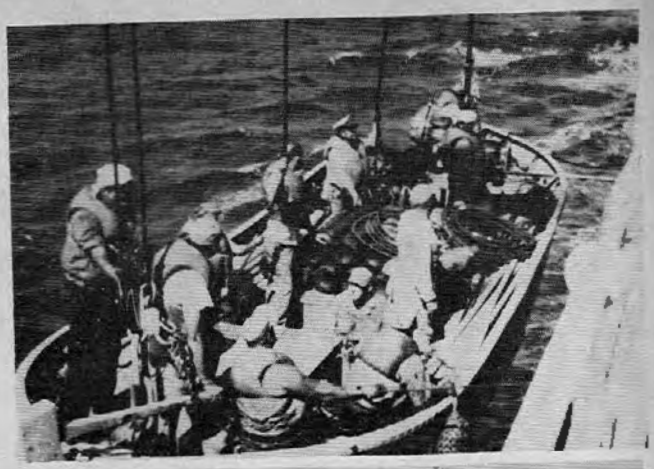
| | Atlantic | Great Lakes and Rivers | Gulf | Pacific | Total |
|---|---|---|---|---|---|
| **A. Access to Vessel** | | | | | |
| **Gangways, accommodation ladders, etc.** | | | | | |
| 1. Length, width, strength, etc., inadequate | 15 | 28 | 11 | 7 | 61 |
| 2. Rigged or secured improperly | 19 | 12 | 8 | 14 | 53 |
| 3. Angle too steep | 17 | 13 | 4 | 6 | 40 |
| 4. Not clear at either end | 8 | 5 | 5 | 2 | 20 |
| 5. Water discharging onto | ---- | ---- | ---- | ---- | ---- |
| 6. Hand ropes or rails not provided or inadequate | 21 | 25 | 10 | 8 | 64 |
| 7. Insufficient number | 5 | 2 | ---- | ---- | 7 |
| 8. Lifeboat or other object suspended over access | 2 | 1 | ---- | 5 | 8 |
| 9. Ring life buoy with lanyard not provided or inadequate | 48 | 23 | 37 | 20 | 128 |
| 10. Other | 15 | 20 | 1 | 4 | 40 |
| **B. Access to Spaces on Board Vessel** | | | | | |
| **Ladders** | | | | | |
| 11. Rigged improperly | 13 | 2 | 6 | 5 | 26 |
| 12. Rungs, steps, or treads missing or loose | 61 | 14 | 10 | 21 | 106 |
| 13. Deteriorated or weakened | 39 | 9 | 13 | 10 | 71 |
| 14. Handrails missing or inadequate | 29 | 11 | 11 | 8 | 59 |
| 15. Doors or passages cluttered | 24 | 7 | 10 | 15 | 56 |
| 16. Escape means blocked or locked | 26 | 7 | 2 | 12 | 47 |
| 17. Other | 11 | 5 | 2 | 13 | 31 |
| **C. Deck and Hull Openings** | | | | | |
| 18. Hatch covers, dangerously piled or placed | 7 | 2 | 2 | 5 | 16 |
| 19. Hatch covers, missing or defective | 7 | 4 | 4 | 5 | 20 |
| 20. Hatch covers, securing means defective | 6 | 25 | 12 | ---- | 43 |
| 21. Hatch beam locking lugs missing or defective | 5 | 5 | 2 | 14 | 26 |
| 22. Lifelines, chains, rails, or guards missing or inadequate | 49 | 17 | 8 | 28 | 102 |
| 23. Other | 3 | 8 | 10 | 6 | 27 |
| **D. Decks and Platforms** | | | | | |
| 24. Slippery due to oil, grease, etc | 77 | 91 | 39 | 23 | 230 |
| 25. Cluttered | 52 | 22 | 18 | 10 | 102 |
| 26. Floor plates or gratings loose or not in place | 74 | 10 | 7 | 13 | 104 |
| 27. Rails and guards missing or inadequate | 63 | 8 | 15 | 20 | 106 |
| 28. Other | 9 | 6 | 1 | 4 | 20 |
| **E. Cargo Handling** | | | | | |
| 29. Safe load not marked on booms | 8 | 2 | 5 | 5 | 20 |
| 30. Guys, falls, booms, etc., improperly rigged | 2 | ---- | 1 | ---- | 3 |
| 31. Overloading gear | ---- | ---- | ---- | 2 | 2 |
| 32. Jury rig winch controls | ---- | ---- | 1 | ---- | 1 |
| 33. Failure to use guards and gates of cargo elevators and escalators | ---- | ---- | ---- | 3 | 3 |
| 34. Using defective cargo gear | 1 | ---- | 2 | ---- | 3 |
| 35. Smoking prohibition disregarded | 4 | 4 | 6 | 13 | 27 |
| 36. Stowage or handling of cargo or gear | ---- | ---- | 1 | ---- | 1 |
| 37. Other | 2 | 2 | 1 | 7 | 12 |
| **F. Lifesaving Equipment** | | | | | |
| 38. Not ready for use | 49 | 5 | 15 | 5 | 74 |
| **Lifeboats** | | | | | |
| 39. Hoisting fully loaded | 1 | ---- | ---- | ---- | 1 |
| 40. Personnel riding to fully stowed position | 1 | 1 | ---- | 2 | 4 |
| 41. Preventive lashings not used when working in boat | ---- | ---- | ---- | 11 | 11 |
| 42. Winch power not shut off when using hand crank or performing maintenance | ---- | ---- | ---- | ---- | ---- |
| 43. Starting engine without ventilating | ---- | ---- | ---- | 2 | 2 |
| 44. Bypassed safety devices | 2 | 2 | ---- | ---- | 4 |
| 45. Tricing and frapping lines improperly used | 4 | ---- | ---- | 6 | 10 |
| 46. Davit span lifelines not ready for use | 5 | ---- | 3 | 7 | 15 |
| 47. Other | 39 | 26 | 23 | 21 | 109 |
| **G. Firefighting Equipment** | | | | | |
| 48. Not ready for use | 63 | 34 | 47 | 53 | 197 |
| 49. Fire screen doors blocked | 1 | ---- | ---- | 4 | 5 |
| 50. Other | 33 | 11 | 14 | 31 | 89 |
| **H. Ventilation** | | | | | |
| 51. Neglect to observe safety precautions prior to entering | ---- | ---- | ---- | ---- | ---- |
| 52. Use of toxic solvent in confined spaces | 1 | ---- | ---- | ---- | 1 |
| 53. Grease, dust, litter in ventilation system | 10 | 19 | 4 | 16 | 49 |
| 54. Cowls, mushrooms, etc., frozen | 19 | 7 | 10 | 18 | 54 |
| 55. Insufficient ventilation | 6 | 6 | 5 | 5 | 22 |
| 56. Other | 17 | 11 | 7 | 4 | 39 |
| **I. Electrical** | | | | | |
| 57. Extension cords defective | 31 | 49 | 13 | 24 | 117 |
| 58. Portable equipment not grounded | 12 | 45 | 8 | 25 | 90 |
| 59. Overfused circuits | 35 | 10 | 18 | 3 | 66 |
| 60. Jury rigged circuits | 76 | 64 | 42 | 37 | 219 |
| 61. Caps for receptacle outlets not in place | 62 | 40 | 37 | 73 | 212 |
| 62. Switch and fuse box panels in passenger spaces left unlocked | 4 | 1 | 2 | 5 | 12 |
| 63. General alarm bells muffled or dampened | 37 | 10 | 17 | 40 | 104 |
| 64. Vapor globes and guards not in place | 128 | 70 | 49 | 79 | 326 |
| 65. Use of defective equipment in hazardous spaces | 9 | 3 | 3 | ---- | 15 |
| 66. Other | 40 | 26 | 12 | 64 | 142 |
| **J. Machinery** | | | | | |
| 67. Failure to take safety precautions in lighting-off boiler | 8 | 3 | 7 | 6 | 24 |
| 68. Spring-loaded valves on sounding pipes secured in open position or not in place | 19 | 1 | 14 | 17 | 51 |
| 69. Machinery guards not in place or defective | 30 | 10 | 9 | 24 | 73 |
| 70. Failure to block or safeguard steam valves when working on steam lines or inside a boiler, evaporator, etc | 3 | ---- | ---- | ---- | 3 |
| 71. Other | 49 | 18 | 28 | 30 | 125 |
| **K. Welding, Burning, Heating, or Riveting** | | | | | |
| 72. No gas-free certificate for "hotwork" where required | 5 | ---- | 5 | ---- | 10 |
| 73. Inadequate fire watch | 2 | ---- | 3 | 6 | 11 |
| 74. Ventilation insufficient | ---- | 1 | 1 | ---- | 2 |
| 75. Personnel protective equipment inadequate | 4 | ---- | ---- | ---- | 4 |
| 76. Other | 2 | ---- | ---- | ---- | 2 |
| **L. Tank Vessels** | | | | | |
| 77. Ullage holes or expansion trunk openings open without flame screens | 19 | 39 | 27 | 5 | 90 |
| 78. Vent header drains left open | 1 | 1 | ---- | ---- | 2 |
| 79. Deck battens or wooden gratings not provided where needed | 5 | 6 | 1 | ---- | 12 |
| 80. Failure to comply with "Declaration of Inspection Prior to Bulk Cargo Transfer" | ---- | 2 | ---- | ---- | 2 |
| 81. Other | 17 | 62 | 59 | 13 | 151 |
| **M. Ferry and Excursion Vessels** | | | | | |
| 82. Vehicles not properly secured during navigation | 1 | 6 | ---- | ---- | 7 |
| 83. Vehicle motors not turned off during navigation | ---- | ---- | ---- | ---- | ---- |
| 84. Insufficient clearance between vehicles for egress of passengers in emergency | 2 | ---- | ---- | ---- | 2 |
| 85. Barricades and gates opened prior to docking | 1 | ---- | ---- | ---- | 1 |
| 86. Passenger supervision inadequate | 1 | 4 | ---- | ---- | 5 |
| 87. Other | 5 | ---- | 2 | 1 | 8 |
| **N. Miscellaneous** | | | | | |
| 88. Job supervision inadequate | 4 | 3 | 4 | 1 | 12 |
| 89. Lack of supervision in maintenance of equipment | 6 | 7 | 6 | 5 | 24 |
| 90. Lack of supervision in conducting drills | 1 | 14 | 1 | ---- | 16 |
| 91. Lack of sufficient personnel | 3 | 2 | 5 | 4 | 14 |
| 92. Oil, fuel and/or debris in bilges | 60 | 9 | 20 | 21 | 119 |
| 93. Stoves, ranges, heaters, hot plates, lanterns, etc., not secured against vessel's movement | 1 | 1 | 1 | 2 | 5 |
| 94. Inadequate deck, gangway, passageway, lighting | ---- | ---- | 2 | 3 | 5 |
| 95. Unsanitary conditions | 17 | 1 | 7 | 1 | 26 |
| 96. Chain falls improperly used | ---- | ---- | ---- | ---- | ---- |
| 97. Lack of precautions while effecting repairs (including warning notices, etc.) | 2 | ---- | 1 | 1 | 4 |
| 98. First-aid equipment not ready for use (medicine chest, litter) | 1 | 3 | 1 | 6 | 11 |
| 99. Stowage of ship's stores improper | 10 | ---- | 7 | 1 | 18 |
| 100. Access over deckloads | ---- | ---- | ---- | ---- | ---- |
| 101. Other | 37 | 5 | 19 | 45 | 106 |
| **Grand Total** | 1,723 | 1,028 | 833 | 1,035 | 4,619 |



U.S. GOVERNMENT PRINTING OFFICE: 1959

# SS "STEEL AGE" HONORED

THE SS "STEEL AGE," which went to the aid of a burning German freighter, the *Crostafels*, as reported in the *Proceedings* of February 1959, has been honored by the National Safety Council, Marine Section, and the American Merchant Marine Institute with the Ship Safety Achievement Citation of Merit.




Capt. Hewlett R. Bishop, Atlantic Coast Director of the Maritime Administration, made the presentation aboard the *Steel Age*. Capt. W. Olin, present master, accepted the citation in behalf of Capt. William W. Myer, who is on leave, training for service aboard the NS *Savannah*. Reading from left to right: Mr. J. W. McDiarmid, manager, Marine Department, Isthmian Lines, Inc.; Mr. Ralph E. Casey, president, AMMI; Captain Olin; Captain Bishop; Vice Adm. Edward C. Holden, president, U.S.P. & I. Agency; and Mr. L. H. Quackenbush, vice president, States Marine Lines.