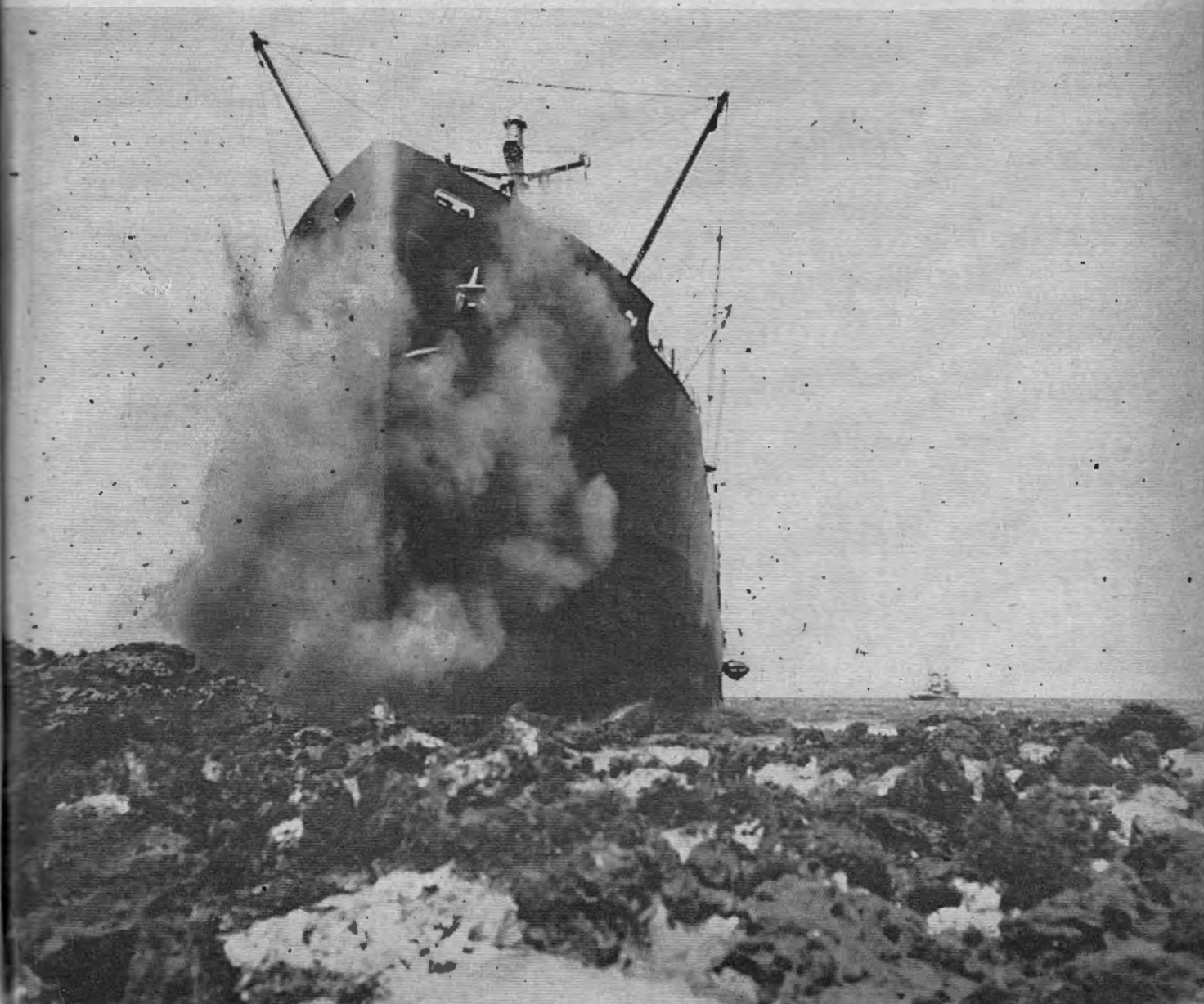
PROCEEDINGS OF THE
MERCHANT MARINE COUNCIL
UNITED STATES COAST GUARD

The printing of this publication has been approved by the Director of the Bureau of the Budget, March 11, 1952.

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

CG 129

Vol. 12 January 1955 No. 1



Proceedings of the

MERCHANT MARINE COUNCIL

Published monthly at Coast Guard Headquarters, Washington 25, D. C., under the auspices of the Merchant Marine Council, in the interest of safety at sea. Special permission for republication, either in whole or in part, with the exception of copyrighted articles or pictures, is not required provided credit is given to the Proceedings of the Merchant Marine Council.

The Merchant Marine Council of the United States Coast Guard

CONTENTS

DISTRIBUTION (SDL 60)

A: a aa b c d dd (2); remainder (1).
B: e (35); c (16); f (4); h (3); g (2); remainder (1).
C: a b c d e f g i m o (1).
D: i (5); a b c d e f g h j k l m (1).
E: a (New London only) (1).
List 141 M.
List 111.

EDITOR'S NOTE:

In lieu of the *Side Lights on the Rules* series, this issue contains questions on the International and Inland Rules of the Road. The next article in the *Side Lights on the Rules* series will appear in the February 1955 issue.

FRONT COVER PICTURE SS. *San Mateo Victory* aground off Korea, see story on page 8.

The poem, *The Sea*, by John E. Smith, 1st assistant engineer, carried on the back cover, won first prize in the 1954 Artists and Writers Poetry Contest. This contest is sponsored annually by the Seaman's Church Institute of New York.

REAR ADM. H. C. SHEPHEARD RECEIVES AMERICAN LEGION AWARD

Rear Adm. H. C. Shepheard, of the United States Coast Guard, and Chief of the Office of Merchant Marine Safety, received the American Legion's Distinguished Service Medal for his service to the American merchant marine.

The award was presented at the Annual Guard of Honor Dinner Dance of the Robert L. Hague Merchant Marine Industries Post 1242 of the American Legion. This medal is awarded annually for outstanding achievement in behalf of the American merchant marine.

A TRIBUTE TO THE MERCHANT MARINE

"I need not tell you gentlemen that historically the U. S. Navy and the American Merchant Marine have been closely, even inseparably, related. All of you know that John Paul Jones was a merchant mariner for 16 years before he became famous in the Continental Navy, that Stephen Decatur commenced his naval career as a privateer. You also know that the American Navy was created entirely from the American Merchant Marine. One of our early congress' first acts was to establish and encourage a merchant marine, for to our forefathers, it was fundamental that if our country was to grow and prosper, it must have the world's best merchant marine. This our rugged and talented merchant mariners proceeded to give us, with the succession of the fast packets, the New Bedford whalers, the famous clipper ships."

—*Secretary of the Navy Charles S. Thomas*

TRADITIONS OF THE SEA

The roll of American Seafarers who have performed their duties in an outstanding and meritorious manner in accordance with the highest traditions of the sea is long but never completed. Another name recently added to this honored list, is that of CAPTAIN FREDERICK P. WILLARTS.

On 13 February 1954, the American Freighter the S. S. *President Pierce* was underway in the western Pacific bound for Yokohama. At 0303, a tremendous explosion erupted from No. 3 hatch, immediately followed by three other explosions. The captain although burned about the face and hands by the fiery blast, which seared through his cabin, immediately directed the saving of his ship, passengers and crew.

On 1 April 1953, Captain Willarts was officially commended for his exemplary conduct by the Commandant of the United States Coast Guard, and the phraseology of this commendation is as follows:

> The United States Coast Guard is pleased to commend you for your outstanding conduct in the interest of safety of life at sea while Master of the SS. *President Pierce*. Your exemplary actions effectively brought under control a serious fire aboard the SS. *President Pierce*, on 12 February 1953, while that vessel was en route from San Francisco, Calif., to Yokohama, Japan, thus preventing a major disaster.
>
> Your cool courage, and steadfast devotion to duty under extremely hazardous conditions and in exposing yourself to great danger, in directing your crew, were instrumental in saving your ship from possible destruction and the loss of lives of your passengers and crew. By your courageous action, and although burned about the head and both hands, the fire was brought under control so that only minor damage occurred to the vessel and no lives were lost.
>
> Your actions are in keeping with the highest traditions of the United States Merchant Marine.

THE SHIP YOU SAVE MAY BE YOUR OWN

Perhaps the most important requisite to the claim of being a professional seaman is a thorough knowledge, understanding, and ability to practically demonstrate the Rules of the Road. Without this requisite, the navigator of any vessel, whether at sea or on a river, is no more than a "landlubber" who happens to be employed on the water. Accordingly, it can be said that the seafaring profession has no use for any alleged seaman who does not have this practical knowledge of the Rules.

The various Rules of the Road were adopted for only one reason and that was to prevent collisions on the water with the resultant loss of life and property. It make no difference whether the water is fresh or salt, International or Inland, there are statutory regulations setting forth Rules to follow in navigating on these waters.

The strict compliance with such rules is no idle gesture, but conversely, failure to so comply is the major cause of all collisions and loss of life on the water. *Lloyd's of London's 1953 Annual Report of Casualties List* shows that 1,563 vessels of over 500 gross tons were involved in collisions wherein it can be assumed one or both vessels failed to obey the Rules of the Road.

A recent report received by the Coast Guard indicates that there is gross inattention, lack of knowledge, or intentional failure to comply with the Rules prescribed for navigation on certain navigable waters of the United States. Since there is no reason to believe that this unseamanlike practice is confined solely to the waters covered in this report, it behooves each member of the marine industry to take cognizance of his own navigational and seamanship abilities to make sure he does not fall within the aforementioned category of alleged seamen.

This interesting "on the spot" demonstration of how *not* to follow the Rules of the Road (in this case Inland and Western Rivers Rules CG–178 and CG–182) occurred during the period 9–11 June 1954 on the Mississippi River between New Orleans and Baton Rouge, La. The observer's vessel was under command of a qualified and experienced master and was piloted by a pilot of comparable ability. This vessel departed New Orleans at 10:30 p. m., 9 June 1954, bound for Baton Rouge.

The violations as noted in the official report are listed chronologically as follows: (The names of the vessels involved in these violations have been omitted.)

1. At 11:55 p. m., 9 June 1954, observed a tank vessel downbound the Mississippi River showing lights for a vessel towing (*violation*), when in fact she was without tow. (See Art. 3, Inland Rules.)

2. At 11:56 p. m., 9 June 1954, observer vessel sounded a one-blast signal on two occasions requesting permission to overtake a tow which was upbound the Mississippi River three-fourths mile below Huey P. Long Bridge. No answer was made to either signal (*violation*). (See Art. 18, Rule VIII, Inland Rules.)

3. At 12:15 a. m., 10 June 1954, above the Huey P. Long Bridge where the Western Rivers Rules apply, the observer vessel was overtaking a tank vessel and a request to pass to port was made by the pilot. The two-blast signal was sounded twice, but there was no signal made in reply (*violation*). (See Western Rivers Rule 22 and Sec. 95.17—Pilot Rules for Western Rivers.) Keeping well to port, the observer vessel overtook this tank vessel which was observed to be pushing a tow ahead. Her lights were improper since both white (Inland) towing and vertical red (Western Rivers) towing lights were exhibited (*violation*). In addition the amber, red, and green lights on the head barge were not screened (*violation*) and were visible 32 points of the compass (*violation*). (See Sec. 95.29 (b), Pilot Rules for Western Rivers.)

4. At 3:40 a. m., 10 June 1954, a meeting situation developed. A towboat pushing a tow of barges downstream in the vicinity of Brilliant Point Light was signaled by the observer vessel's pilot three times before the signal was answered (*violation*), as required by Western Rivers Rule 18 (b). The lights on the head of this tow were not screened (*violation*) and showed through 32 points (*violation*). (See Sec. 95.29 (b), Pilot Rules for Western Rivers.) In addition, the two vertical red lights required by Western Rivers Rules (Rule 3 (d)) were unscreened (*violation*), visible through nearly 32 points (*violation*) and located so close to the vessel's running lights (*violation*) as to appear, in conjunction with the port running light, to be three vertical red lights. To complete this illuminated picture of disregard, it was noted that the barge lights were visible for only 1 mile (*violation*) instead of the required 3-mile visibility. (See Sec.

95.29 (b), Pilot Rules for the Western Rivers.)

The remainder of the trip was uneventful and the vessel departed Baton Rouge downbound at 5 p. m., 10 June 1954.

5. At 6:40 p. m., an ascending tug and tow was encountered in a meeting situation near Plaquemine, La. This tug failed to initiate the passing signal (*violation*) required by Western Rivers Rule 18 (b).

6. At Gem Light a towboat was observed pushing two barges upriver. This vessel had only one red light showing at her stern (*violation*), not in compliance with Western Rivers Rule 3 (d).

7. At 9:20 p. m., a diesel towboat pushing three loaded shell barges was encountered in a meeting situation at Brilliant Point Light. The tow had a 32-point (*violation*) white lantern atop the shell pile (*violation*) on the lead barge and 32-point (*violation*) red and green lanterns set on deck at the base of the shell pile (*violation*) so as to be visible 80° across the bow (*violation*), all in clear violation of Section 95.29, Pilot Rules for Western Rivers.

8. At 9:30 p. m. the observer vessel was in a meeting situation with an upbound towboat pushing tank barges in the vicinity of Nita Light. Passing signals were made and answered properly; it was, however, determined that the head barge was not lighted with an amber light (*violation*) in accordance with Section 95.29 of the Pilot Rules for Western Rivers and the towboat did not exhibit the vertical red lights (*violation*) prescribed in Western Rivers Rule 3 (d).

9. At 10 p. m. a meeting situation developed with another towboat pushing two deck barges upriver in the vicinity of Orange Grove Light. The head barge showed no amber light (*violation*); the red and green lights were unscreened (*violation*), visible nearly 32 points (*violation*); the lights were less than 8 feet above water (*violation*) and were visible only 1 mile (*violation*). While this may have been unintentional, Section 95.29 of the Pilot Rules for the Western Rivers was violated in all respects. In addition, the towboat exhibited both Inland and Western Rivers tow lights (*violation*); i. e., two vertical 20-point white lights forward, one 32-point white range light and two vertical red lights aft. (See Inland Rules Article 3 and Western Rivers Rule 3 (d).) Having sighted this lighted monstrosity, the observer vessel waited in vain for her to initiate the passing signal (*violation*) required by Western Rivers Rule 18 (b). Not only did she fail to initiate the passing signal but she persisted on her collision course so that the observer vessel had to use hard right rudder in order to sheer sufficiently to starboard to avoid collision.

10. At 1:30 a. m., now below Huey P. Long Bridge and in Inland waters, a tank vessel with a barge made fast on her starboard side was overtaken. This vessel was improperly exhibiting the Western Rivers red towing lights (*violation*). In addition, a red light was improperly exhibited from the port bow of the barge (*violation*). (See Sec. 80.16a (c), Pilot Rules for Inland Waters.)

11. At 2 a. m., 11 June 1954, the observer vessel docked at New Orleans and this enlightening trip was over. From the observations made during this 26-hour period, the only conclusion that can be drawn is that there is a prevalent disregard for the Rules of the Road by watercraft navigating the Mississippi River. Any thought that this observed record of poor navigation and seamanship was an exception to the rule was dispelled by a similar observation trip made between Norco and Ostrica during the period of 28–30 September 1954. In 46 passing and meeting situations that developed on the Mississippi River, there were 34 violations of Pilot Rules!

While it is recognized that in many instances the violation resulted from ignorance of the rules rather than a willful disregard of them, the net result is that these vessels are navigated as though they are always in the right and all others must keep out of their way. Obviously when it is established that 74 percent of all passing situations on a body of water are made in violation of the Rules of the Road, it is time that all navigators of these waters, whether commercial rivermen, yachtsmen or coastguardsmen, ask themselves whether they wish to promote safety and prevent collisions, or expose their vessels to damage or loss. It is certainly questionable, if the persons guilty of such infractions can be called seamen or rivermen.

nautical queries

The following questions on the International Rules of the Road are reprinted from the December 1953 issue of the PROCEEDINGS. *The revised International Rules of the Road have been in effect since January 1, 1954, and mariners, by this time, should be well versed in their use. Unlike most quizzes, this is not an instance where one may say 70 percent is fair, 85 percent good, and 95 percent excellent. Insofar as mariners are concerned, there can be no relative degree of knowledge of the applicable Rules of the Road. They either know them or they don't. The best place to know the Rules and the worst place to study them is in a collision approach.*

Answers to these questions will be found on page 11.

1. The revised International Rules apply to both the high seas and the inland waters of the United States.
True _____. False _____.

2. The Inland Rules now provide for waterborne seaplanes.
True _____. False _____.

3. The revised International Rules define the word "vessel" as including every description of watercraft, other than a seaplane on the water, used or capable of being used as a means of transportation on water.
True _____. False _____.

4. Under the revised International Rules, all power-driven vessels must carry a 20-point after range light and a 12-point fixed stern light.
True _____. False _____.

5. Under Inland Rules, the after range light for nonseagoing steam vessels is an all-around white light which is required to be 15 feet above the masthead light.
True _____. False _____.

6. Under International and Inland Rules alike, the minimum horizontal separation between the masthead and after range lights must be at least 45 feet.
True _____. False _____.

7. Under the revised International Rules, a waterborne seaplane's after range light is a white light of the same construction and character as its forward range light.
True _____. False _____.

8. Under Inland Rules, a towing vessel must carry either a fixed stern light or in lieu of that light a steering light for the tow to steer by.
True _____. False _____.

9. Under Inland Rules, a vessel with a tow that is pushed ahead or towed alongside must carry either two 20-point white lights forward or two 32-point white lights aft.
True _____. False _____.

10. Under the revised International Rules, a vessel with a tow that is pushed ahead or towed alongside must carry three 20-point white lights forward.
True _____. False _____.

11. Under Inland Rules, a vessel towing three barges in tandem astern must carry either three 20-point white lights forward or three 32-point white lights aft.
True _____. False _____.

12. Under the revised International Rules, a vessel towing three barges in tandem astern must carry three 20-point white lights, and may carry an additional 20-point rangelight, if the length of the tow, measured from the stern of the towing vessel to the stern of the last vessel towed, exceeds 600 feet.
True _____. False _____.

13. Under the revised International Rules, a vessel pushing a tow ahead must carry a fixed 12-point white stern light.
True _____. False _____.

14. Under International and Inland Rules alike, a vessel which is underway and not under command at night must carry two all-around red lights, a 12-point white fixed stern light, and if making way, sidelights.
True _____. False _____.

15. Under the Inland Rules, a vessel underway and not under command during daytime must carry two black balls or shapes in a vertical line.
True _____. False _____.

16. Under Inland Rules, a Coast Guard buoy tender that is working a buoy may carry two all-around red lights at night and two vertically striped orange and white balls by day; while under the revised International Rules, she must carry a red-white-red signal by day and by night.
True _____. False _____.

17. Under the revised International Rules, a vessel that is engaged in surveying or underwater operations can show the red-white-red not under command signal only when she is unable to get out of the way of approaching vessels, and then she must do so.
True _____. False _____.

18. Under the revised International Rules, not under command signals for seaplanes broken down at night or during daytime are optional.
True _____. False _____.

19. Under the revised International Rules, all vessels, whether in tow or pushed ahead, carry either a fixed stern light or in lieu of that light a small steering light.
True _____. False _____.

20. Under International and Inland Rules alike, nondescript vessels in tow must carry screened sidelights.
True _____. False _____.

21. Nondescript vessels normally towed in New York Harbor may temporarily operate on the Gulf Intracoastal Waterway without any change in lights.
True _____. False _____.

22. Under the revised International Rules, every vessel in a group of vessels being pushed ahead must carry screened sidelights at the bow.
True _____. False _____.

23. Small vessels underway in bad weather on the high seas at night can no longer carry a combination lantern.
True _____. False _____.

24. Under the revised International Rules, a power-driven vessel of less than 40 gross tons is not required to carry the lights prescribed for power-driven vessels by Rule 2, but is required to carry the stern light prescribed by Rule 10 (a) for all vessels underway if possible to do so.
True _____. False _____.

25. Motorboats subject to the Motorboat Act of April 25, 1940, may enter international waters without changing their lights.
True _____. False _____.

26. A power-driven vessel of less than 40 gross tons which is not over 65 feet in length is subject to the Motorboat Act of April 25, 1940, in inland waters.
True _____. False _____.

27. Under the revised International Rules, pilot vessels on station on pilotage duty must exhibit a flare-up light at not more than 15 minute intervals.
True _____. False _____.

28. Under the revised International Rules, a pilot vessel on station on pilotage duty and at anchor must carry anchor lights for her class.
True _____. False _____.

29. Under International and Inland Rules alike, steam or other power-driven pilot vessels carry a red all-around light below their all-around white masthead light.
True _____. False _____.

30. Under the revised International Rules, vessels fishing with trolling lines extending up to 500 feet horizontally into the seaway show an

all-around white light where it can best be seen, and on the approach of or to another vessel show another all-around white light below the first light in the direction of the outlying gear.

True _____. False _____.

31. Under the revised International Rules, vessels fishing with nets or lines, except trolling lines, extending more than 500 feet horizontally into the seaway show three white all-around lights in a vertical triangle.

True _____. False _____.

32. Under the revised International Rules, a power-driven trawler must carry a tricolored lantern over an all-around white light.

True _____. False _____.

33. Under Inland Rules, all fishing vessels fishing must show an all-around red light over an all-around white light.

True _____. False _____.

34. Under the revised International Rules, all vessels fishing at anchor must show appropriate anchor lights and shapes.

True _____. False _____.

35. Under the revised International Rules, the fixed stern light for vessels underway must be carried as nearly as practicable on the same level as the sidelights.

True _____. False _____.

36. Under Inland Rules, only nonseagoing steam vessels are required to carry a fixed 12-point stern light.

True _____. False _____.

37. Under the revised International Rules, every vessel at anchor between sunrise and sunset must carry a black ball in the forepart of the vessel; while under Inland Rules this is required only of vessels over 65 feet in length.

True _____. False _____.

38. Under the revised International Rules, a vessel aground is required to show by night anchor lights for her class and two all-around red lights in a vertical line.

True _____. False _____.

39. Under Inland Rules, a vessel aground is required to show by night anchor lights for her class, but cannot show the two all-around red lights shown by vessels aground at sea.

True _____. False _____.

40. Under the revised International Rules, all waterborne seaplanes at anchor exhibit an all-around white light where it can best be seen.

True _____. False _____.

41. Under International and Inland Rules alike, Naval and Coast Guard vessels may show *additional* station and signal lights.

True _____. False _____.

42. Under International and Inland Rules alike, Naval and Coast Guard vessels are excused from the literal requirements of the Rules.

True _____. False _____.

43. Under the revised International Rules, a vessel that is proceeding under both sail and power must exhibit a black ball or globular shape, not less than 2 feet in diameter, where it can best be seen.

True _____. False _____.

44. Under the revised International Rules, sailing vessels underway in fog, sound fog signals on a fog horn which is sounded by mechanical means.

True _____. False _____.

45. Under the revised International Rules, a power-driven vessel underway and making way in fog must sound a prolonged blast at intervals of not more than 2 minutes; while under Inland Rules, a steam vessel underway in fog, whether making way or not, must sound a prolonged blast at intervals of not more than 1 minute.

True _____. False _____.

46. Under the revised International Rules, a power-driven vessel underway but making no way in fog must sound two prolonged blasts at intervals of not more than 2 minutes.

True _____. False _____.

47. Under Inland Rules, a steam vessel underway in fog but making no way must sound a prolonged blast at intervals of not more than 1 minute.

True _____. False _____.

48. Under the revised International Rules, all vessels anchored in fog must ring the bell rapidly for about 5 seconds at intervals of not more than 1 minute; and, if the vessel is more than 350 feet in length, she must also sound a gong immediately after ringing the bell.

True _____. False _____.

49. Under the revised International Rules, every vessel at anchor in fog may, at her option, sound a signal consisting of one prolonged blast followed by two short blasts to give warning of her position and of the possibility of collision to an approaching vessel.

True _____. False _____.

50. Under the revised International Rules, a vessel aground in fog must give the same signal as when she is at anchor.

True _____. False _____.

51. Under Inland Rules, a vessel aground in fog must give warning of her position by danger or distress signals.

True _____. False _____.

52. Under the revised International Rules, vessels of less than 20 gross tons, rowing boats, and seaplanes on the water need but make some efficient sound signal at intervals of not more than 1 minute.

True _____. False _____.

53. Under Inland Rules, a vessel being towed in fog must sound a signal consisting of one prolonged blast followed by two short blasts.

True _____. False _____.

54. Under the revised International Rules, all vessels being towed in fog must, if manned, sound a signal consisting of one prolonged blast followed by three short blasts.

True _____. False _____.

55. Under the revised International Rules, the following vessels sound a signal consisting of one prolonged blast followed by two short blasts when underway in fog:

(1) A vessel towing.

(2) A vessel engaged in laying or in picking up a submarine cable or navigation mark.

(3) A vessel underway which is unable to get out of the way of an approaching vessel through being not under command or unable to maneuver as required by these rules.

True _____. False _____.

56. Under Inland Rules, a steam vessel under way in fog and not under command sounds two prolonged blasts at intervals of not more than 1 minute.

True _____. False _____.

57. Under International and Inland Rules alike, every vessel proceeding in fog must:

(1) Go at a moderate speed.

(2) Upon hearing a fog signal of another vessel apparently forward of her beam, stop her engines, and then navigate with caution until danger of collision is over.

True _____. False _____.

58. Under the revised International Rules, a seaplane on the water is deemed a vessel for the purposes of the Steering and Sailing Rules.

True _____. False _____.

59. Under the revised International Rules, the clear weather one- and two-short-blast signals must accompany a change in course.

True _____. False _____.

60. Under Inland Rules, the clear weather one- and two-short-blast signals are signals denoting intention to pass another vessel in a particular manner, irrespective of whether a change in course is involved or not.

True _____. False _____.

61. Under International and Inland Rules alike, the three short blast backing signal means:

(1) My engines are backing at any speed, or

(2) I am making stern way.

True _____. False _____.

62. Under the revised International Rules, a sailing vessel always has the right-of-way over a power-driven vessel.

True _____. False _____.

63. Under the revised International Rules, a power-driven vessel approaching within one-half mile of a blind bend in a channel must sound a prolonged blast on her whistle or siren and upon hearing a like signal from another vessel around the bend must then exchange passing signals upon sighting the other vessel.

True _____. False _____.

⚓ ⚓ ⚓

CORRECTION

In the December 1954 issue of the Proceedings the answer to the stability problem in Nautical Queries was in error and the question and answer should read as follows:

Q. *a*. A vessel taking a heavy deck cargo checks her stability by lifting a weight of 50 tons with her heavy lift boom 40 feet from the centerline. The displacement, including the weight lifted, is 10,000 tons. The angle of list caused by the suspended weight is 3°. What is the GM of the vessel corresponding to this condition?

A. *a*.

$$GM = \frac{w \times d}{W} \cot \text{Angle of List.}$$

$$GM = \frac{50 \times 40}{10{,}000} \cot 3°$$

$$GM = \tfrac{1}{5} \cot 3°$$

$$GM = \frac{19.081}{5} = 3.816$$

⚓ ⚓ ⚓

⚓

ADOPTION OF THE INTERNATIONAL NAUTICAL MILE

On 17 June 1954 the Secretary of Defense, C. E. Wilson, signed a directive authorizing the International nautical mile (1,852 meters, 6,076.10333 * * * feet) to be used within the Department of Defense as the standard length of the nautical mile.

On 31 August 1954, in order to establish uniformity, the Coast Guard adopted the International nautical mile as standard.

The knot is the unit of speed—a division of the log line, serving to measure the rate of a vessel's motion—and is the equivalent of a nautical mile per hour.

Readers will be interested to know of this change. The previously used nautical mile was 1,853.248 meters, 6,080.20 feet.

⚓

INTERNATIONAL LOAD LINE CONVENTION, 1930

The Republic of Korea acceded to the International Load Line Convention that was held at London on July 5, 1930, on September 11, 1954, in accordance with article 23 of the convention:

Countries which have ratified or acceded to the International Load Line Convention of 1930, or to which the convention has been extended in accordance with article 21 thereof, are listed below, together with the date of deposit of ratification or accession or application:

United Kingdom	October 1, 1932.
Argentina	October 19, 1935.
Australia, Commonwealth of	February 17, 1936.
Belgium	May 29, 1935.
Brazil	December 31, 1937.
Bulgaria	September 4, 1933.
Burma	April 1, 1937.
Canada	October 1, 1932.
Chile	May 24, 1933.
China	August 19, 1935.
Costa Rica	July 1, 1953.
Cuba	December 9, 1932.
Danzig	August 4, 1933.
Denmark	August 13, 1931.
Dominican Republic	October 28, 1947.
Ecuador	February 28, 1950.
Egypt	July 24, 1936.
Estonia	March 17, 1934.
Finland	October 1, 1932.
France	October 1, 1932.
French Indochina	November 15, 1938.
Germany	September 6, 1933.
Greece	December 4, 1934.
Honduras	June 10, 1948.
Hong Kong	July 1, 1938.
Hungary	January 16, 1933.
Iceland	November 26, 1932.
India	October 1, 1934.
Irish Republic	February 8, 1934.
Israel	July 15, 1949.
Italy	October 1, 1932.
Japan	June 11, 1935.
Japan, for Chosen, Taiwan, and the Leased Territory of Kwantung.	July 12, 1935.
Republic of Korea	June 11, 1954.
Latvia	January 29, 1932.
Liberia	March 25, 1949.
Federation of Malaya	February 10, 1954.
Mexico	June 6, 1934.
Netherlands	April 9, 1932.
Netherlands East Indies and Curacao	February 27, 1933.
Newfoundland	April 1, 1936.
New Zealand (including Western Samoa)	October 1, 1932.
Nicaragua	February 19, 1954.
Norway	October 1, 1932.
Panama	July 13, 1936.
Peru	March 30, 1933.
Philippine Republic	September 30, 1949.
Poland	September 6, 1933.
Portugal	October 1, 1932.
Rumania	January 1, 1933.
South Africa, Union of	February 24, 1947.
Soviet Union	October 1, 1932.
Spain	October 1, 1932.
Straits Settlements (Malacca, Penang, and Singapore).	January 2, 1939.
Sweden	October 1, 1932.
Switzerland	May 19, 1954.
Thailand	July 11, 1933.
United States of America	June 10, 1931.
Uruguay	February 8, 1939.
Yugoslavia	February 26, 1934.

LESSONS FROM CASUALTIES

BLAST OFF!

The weather was dark and gusty. Light rain interfered with the vision of the mate and the lookout, reducing visibility at times to 3 miles. As the SS. *San Mateo Victory* forged ahead through the night, all hands but the watch were slumbering soundly, content with the knowledge that she was homeward bound. The engines were "Full Ahead."

At 11 p. m., exactly as he had ordered, the master was awakened by a messenger from the bridge. A few minutes later he was in the pilothouse with the junior third mate, both anxiously scanning the dim horizon ahead with binoculars. The fathometer was ticking away, its measured cadence metering out the passing time. But no one was watching the fathometer. All eyes were ahead. Suddenly, there was a grinding roar and every man on his feet lurched for a handhold. The *San Mateo Victory* had finished her voyage.

Sailing on a routine trip with lumber and general cargo for the Armed Forces in Korea, the *San Mateo Victory* had departed Seattle on March 4, 1954, under United States Navy routing. For 8 days the vessel lay at Pusan discharging part of her cargo and then sailed for the never-to-be-forgotten port where General MacArthur applied the "big pinch" to the Reds—Inchon. During the trip north, her radar was found to be inoperative due to a defective magnetron. While lying in the port of Inchon, the master requested his local agent to request the necessary radar repairs for accomplishment at the next port, which was scheduled to be Sasebo, Japan. This message was duly sent and received by the Maritime Administration National Shipping Authority's office in Tokyo.

Early on the morning of April 5, all cargo having been discharged, the *San Mateo Victory* weighed anchor in Inchon harbor and commenced her long voyage home. Happily, the officers and crew did not realize at that moment just how long it would be before their vessel would ever arrive stateside. Steering gear, navigation lights, engineroom telegraph, and whistle were tested and all found in good order. The weather was favorable and all omens pointed to a good trip home with just one stop en route, in Japan. At 6:27 a. m. with the sea buoy off Inchon abeam, then the speed was set at Full Ahead. At 8:42 a. m. departure was taken off An Do lighthouse. The southerly trip down the South Korea coast was uneventful and at 5:06 p. m. the *San Mateo* passed Ko Sho lighthouse abeam 11¼ miles off, where the course was changed to 180° true by gyro. The gyrocompass was apparently operating normally with little or no error.

When the United States naval routing for the return trip to Sasebo had been received at Inchon, the master brought to the attention of the routing officer that the vessel's radar was not functioning. An alternative route giving geographical positions to be made but not courses to be steered, was provided for the master through an area less restricted by reefs and small islands but which would have increased the distance to be sailed. The master chose to follow the shortest route which was to the north of Cheju Do, a small island 30 miles south of Korea. This route passed between Cheju Do and the unlighted, unmarked pinnacle of Kaigon To, 12 miles to the north. Furthermore, this area would be transited in darkness and without radar. After sailing on the southerly heading 2¼ hours, the small island of Schuksan Do was abeam 6 miles to port. The course of the next leg in crossing under the tip of Korea toward the spot off Cheju Do designated by the naval routing was 111° true. Knowing the waters in this vicinity to be subject to erratic and strong tidal currents, the master attempted to assess the information available to him before setting the next course. Hydrographic Office sailing direction No. 122-B contains the following information about Cheju Do: "Off the northern side of Cheju Do the tidal currents flow roughly parallel to the coast in the area about 4 miles northward toward Cheju Hang. The westerly current runs for 2 or 3 hours after low water until 2 or 3 hours after high water and the easterly ebb current takes a reverse set." This section was considered by the master. However, another section of the same publication contains the following statement concerning the west coast of Korea: "Currents off the open coast at flood current are northgoing and the ebb is southgoing." This section was not referred to by the master, although on the trip from Pusan to Inchon a southerly set had been noticed. Accordingly, the master assumed that the current, as he approached the north coast of Cheju Do from the west, would set in a westerly direction at that time of day. He estimated that his vessel's speed over the ground would be reduced by the current and he did not allow for leeway from this current in setting his course. Therefore, at 7:42 p. m. the *San Mateo Victory*, having passed to the south of

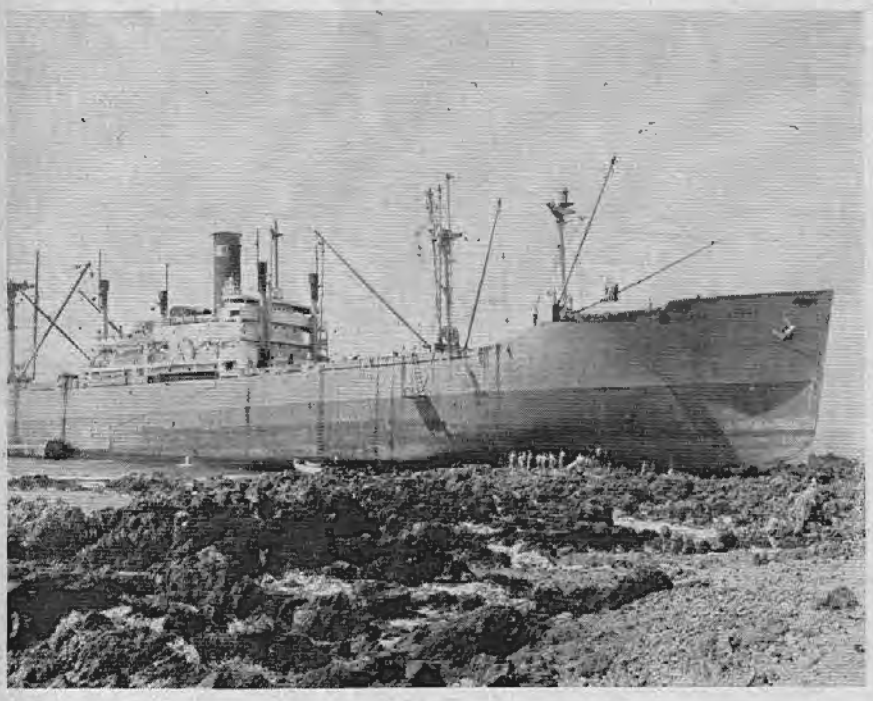


Figure 1.

Schuksan Do, came left to a gyro heading of 111° to make good a course of 111° true. This course was not changed.

The depth of water during the next 3 hours did not vary more than 10 or 15 fathoms, so the men on watch were unable to draw any conclusions as to the vessel's position by watching the fathometer. In addition, this instrument's operation was erratic for some reason and reliable readings were not made.

Before turning in for a catnap at 8 p. m. the master prepared written night orders as follows: "The course to steer is 111° true. Keep good lookout. Give traffic good berth. Call me any time you are in doubt. Call me at 2300. Change course to 083° gyro at 2353." The vessel was unable to obtain radio bearings from a radiobeacon listed and indicated at Cheju Hang, a port on Cheju Island almost dead ahead. With the radar not working, the fathometer not producing any usable information, and the radio direction finder not telling any story, the *San Mateo Victory* was proceeding at this time strictly on dead reckoning, but at full speed estimated by the master to be 17 knots. When the messenger called the master at 11 p. m. his ship was already in a bad position and the situation was growing rapidly worse, but nobody on board had any idea of this. No course change had been made and engine speed had not been reduced. The master worked the radio direction finder himself to attempt to take a bearing on Cheju Hang beacon but could get no clear signal due to atmospheric conditions and assumed that the radiobeacons located in the area were not operating. No attempt was made to use the vessel's sounding machine. Visibility fluctuated between 3 and 5 miles. The moon and stars were obscured and the darkness was complete. The only aid to navigation which could now save this vessel from destruction was the human eye, or the foresight of a seasoned seaman. At 11:48, 5 minutes before the intended time of changing course to the left, the *San Mateo Victory* rode hard up on the cruel and solid rocks lying just off the coast of Cheju Do near the little town of Unryu Kan. With a tremendous groan the 7,600-ton ship ground out her fearful landing, her bottom ripped and buckled.

The engines were immediately rung full astern and the general alarm sounded. Within 1 minute it was noted that rocks were projecting above the water immediately under the bow and it would be futile to attempt to back off so the engines were stopped. The crew responded promptly and properly to the alarm signal, proceeding to assigned stations on the double. Soundings were quickly made of all double-bottom tanks and around the ship's perimeter. Numbers 1, 2, and 3 double-bottom tanks were found to be badly holed and the vessel hard aground on solid rock from midship forward. Fortunately, despite the terrific impact at full speed against such an immovable object, there were no injuries. The master notified the Navy radio station at Guam of the grounding as quickly as possible. The weather continued to moderate and the vessel was held fast in good trim, so no immediate need to abandon the ship was apparent.

The coming of daylight revealed *San Mateo's* position to be close to the rockbound coast of Cheju Do with low land slowly rising to hills and mountainous terrain approximately 4 or 5 miles from the coastline (see fig. 1). The officers were soon able to determine their true position and place themselves on the chart correctly. This position proved that the current, rather than setting westerly as the master had calculated, had set about 199° true with a speed of 2.2 knots. The vessel had been set 8.8 miles off her course in the 4-hour leg from Schuksan Do.

Two days later the first Navy salvage ship arrived on the scene, followed by five other vessels attached to U. S. Navy Task Group 92.4. For the next month the Navy salvage group, assisted greatly by the master and crew, toiled at the forbidding task of refloating this strand. Salvage operations included the blasting of rock from under the forepart of the vessel (see cover and fig. 2), and in some instances the blasting off of rock protruding up through the vessel's bottom.

On May 7, 1954, with eight sets of beach gear and three salvage tugs pulling, the *San Mateo Victory* slid reluctantly back into the water. Leakage into the inner hull being moderate and controllable, the ship was taken in tow and arrived at the shipyard in Nagasaki, Japan, the following day. Upon drydocking, it was found that all of the hull plating, in the way of Nos. 1, 2, and 3 double bottoms, was badly holed and buckled with considerable damage to all adjacent internals. The after midships column in No. 3 hole was distorted. The rudder was damaged. The machinery, wiring, and piping were all suspect and subject to overhaul and realinement. The estimated bill for repairs was close to $200,000.

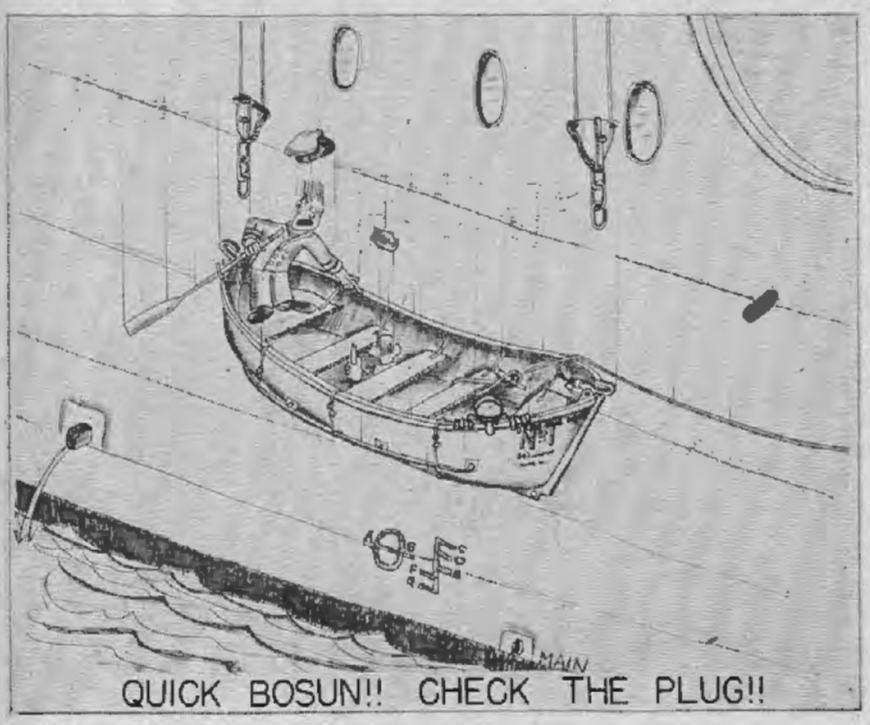
During the extensive salvage operations, it was particularly noted by members of the salvage group that the tidal currents off this section of the coast of Cheju Do were erratic. At neap tide, the current set to the north on the flood and to the south on the ebb, as predicted in the Sailing Directions, but on the spring tide, the tidal current reversed direction and was approximately 180° opposite to that predicted in the Sailing Directions. However, whether the tidal current

Figure 2.

was setting north or south at the period preceding the grounding was apparently not considered by the master since in laying off his trackline of 111° true and then setting a course of 111° true to make good the track, he allowed for no cross-set at all, but did allow for a set against him, setting him to the westward and which, in his opinion, would reduce his speed over the ground to no more than 17 knots. In addition, due to a slight error in laying down the trackline on the chart, the computed speed to the turning point at 11:53 p. m. would only be 16.7 knots. Actually, at the moment of grounding, the vessel had made good a speed of almost 18 knots so that the anticipated westerly set had not materialized and the vessel, at that time, was at least 5 miles ahead of her predicted dead reckoning position. A close examination of the chart for this area further indicates that, even if the *San Mateo* had made good her intended track of 111° true, at the speed she was actually making, she would have grounded in any event in pursuing her intention to change course at 11:53 p. m. to 83° true, but at a point further north and east on Cheju Do. Therefore, the speed of the vessel was a direct factor contributing to her grounding.

The conclusion was inescapable that the master had relied upon his assumption of a westerly set which would hold back his ship and, in the bluntest of terms, keep her off the rocks. The Coast Guard hearing examiner, following the hearing which resulted in a suspension of the master's license for several months, stated: "* * * the speed at which the person charged was navigating his vessel in restricted waters under conditions of low visibility with defective electronic navigational equipment and unreliable navigational aids and data, was an excessive and unsafe speed under the circumstances, and constituted negligence. * * * There is no excuse for the risks he undertook. * * * Any one of the factors discussed should have compelled caution on the part of a prudent master. The responsibility for the safety of the lives and property in his command place upon the master heavy obligations to exercise due caution in handling his vessel."

In fairness to the master of the *San Mateo Victory*, it should be stated that prior to this grounding he had enjoyed a long and unblemished career, sailing 28 years in various capacities, having held a master's license for the last 10 years, and with no previous action taken against his license or documents. When charged by the Coast Guard with negligence contributing to the grounding of his vessel, he pleaded guilty to the charge and to the specification, and made no attempt to defend himself through the use of legal technicalities or subterfuge. Navy salvage group officers and other officials present during salvage operations had nothing but praise to offer on the efforts of the master, and all of his officers and crew to assist in these operations. In the words of one official: "It was a crew of real sailors in the finest oldtime traditions of the profession."



QUICK BOSUN!! CHECK THE PLUG!!

DON'T LEARN THE HARD WAY

By Marine Inspection Office, Honolulu

A seaman with chief electrician's endorsement suffered a serious arm injury when an electric motor he was working on in the machinery space oversped and disintegrated. This casualty occurred at sea. The estimated amount of damage to equipment which resulted was $1,700.

The vessel in which this casualty occurred is equipped with an air compressor which is powered by a 30-horsepower electric motor connected by a multiple V-belt drive.

On the previous voyage the motor had developed mechanical trouble, necessitating a replacement. While the original was being overhauled ashore, it was planned to utilize the replacement motor, connecting it up after the vessel sailed. One morning after the vessel had departed, the chief electrician reported to the first assistant engineer for instructions for electrical work to be undertaken that day. He was instructed to finish wiring the replacement motor, but not to test-run it until the guard had been installed and the first assistant engineer had been notified so that he could make a check of the connections before the motor was operated.

The electrician completed wiring the motor to his own satisfaction, but did not replace the guard. He then started the motor. Immediately it began to overspeed. As he turned the switch off, a cast-iron pulley on the motor disintegrated and a flying piece of metal gouged a hole approximately 3½ inches in circumference and 2½ inches deep from the fleshy part of his right forearm.

First aid was administered by the purser, but it was necessary because of the seriousness of the injury to facilitate a rendezvous at sea with another ship that carried a doctor. Upon examination, the doctor deemed it necessary that the injured chief electrician remain on board for observation and treatment.

On investigation of the incident, it was discovered that the motor had been connected improperly, a fact which caused the overspeeding and resultant casualty. Had the electrician carried out his orders and called the first assistant, as he had been directed to, before starting the motor, the chances are that the guard would have been reinstalled and the improper electrical connections noticed and corrected, thus avoiding a serious personnel injury, as well as damage to the electrical equipment.

APPENDIX

AMENDMENTS TO REGULATIONS

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

TITLE 46—SHIPPING

Chapter I—Coast Guard, Department of the Treasury

Subchapter B—Merchant Marine Officers and Seamen

[CGFR 54–47]

PART 10—LICENSING OF OFFICERS AND MOTORBOAT OPERATORS AND REGISTRATION OF STAFF OFFICERS

SUBPART 10.05—PROFESSIONAL REQUIREMENTS FOR DECK OFFICERS' LICENSES (INSPECTED VESSELS)

5. Section 10.05–13 is amended to read as follows:

§ 10.05–13 *Master of Great Lakes steam and motor vessels.* (a) The minimum service required to qualify an applicant for a license as master is listed in this paragraph. In order to be eligible for an unlimited license, an applicant must have acquired his service on vessels of 4,000 gross tons or over, except as specified herein.

(1) 1 year's service as first class pilot while acting in the capacity of first mate on Great Lakes steam or motor vessels. (No change in existing regulation.)

(2) 2 years' service as first class pilot while acting in the capacity of second mate on Great Lakes steam or motor vessels.

(3) 4 years' service as first class pilot on Great Lakes steam or motor vessels, one year of which shall have been while acting in the capacity of second mate.

(4) 1 year's service as master of Great Lakes steam or motor vessels of 150 gross tons or under while acting under the authority of a first class pilot's license, for a license as master of Great Lakes steam and motor vessels of not over 1000 gross tons.

(5) 1 year's service as master and/or first class pilot on lakes, bays and sounds steam or motor towing vessels, together with 1 year of service as first class pilot on Great Lakes vessels of over 100 gross tons, for a license as master of Great Lakes towing vessels of not over 750 gross tons.

6. Section 10.05–39 *Pilot* is amended by canceling paragraph (a) (1) and by redesignating subparagraphs (2) and (3) to (1) and (2) so that paragraph (a) reads as follows:

§ 10.05–39 *Pilot.* (a) The minimum service required to qualify an applicant for license as pilot of any class, except for special license as pilot of steam vessels of 10 gross tons and under, is:

(1) 3 years' service in the deck department of any vessel; and,

(i) 25 percent of such service shall have been obtained within the 3 years immediately preceding the date of application; and,

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

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

(2) 2 years' service in the deck department of vessels propelled by machinery, which vessels navigate canals and small lakes like Seneca and Cayuga Lakes in New York State, 1 year of which service shall have been within 2 years immediately preceding the date of application, for a license as pilot of steam vessels of limited tonnage and routes.

EQUIPMENT APPROVED BY THE COMMANDANT

FUSIBLE PLUGS

The regulations prescribed in Subpart 162.014, Subchapter Q, Specifications, require that manufacturers submit samples from each heat of fusible plugs for test prior to plugs manufactured from the heat being used on vessels subject to inspection by the Coast Guard. A list of approved heats which have been tested and found acceptable during the period from 15 October to 15 November 1954, is as follows:

M. Greenberg's Sons, 765 Folsom St., San Francisco 7, Calif. Heat No. 170.

The Lunkenheimer Co., Cincinnati 14, Ohio. Heat Nos. 490 through 495.

AFFIDAVITS

The following affidavits were accepted during the period from 15 October 1954 to 15 November 1954:

Crown Non-Ferrous Foundry, Inc., Box 758, Chester, Pa., Castings.

⚓ ⚓ ⚓

ANSWERS, NAUTICAL QUERIES

1. False.	22. False.	43. False.
2. False.	23. False.	44. True.
3. True.	24. True.	45. True.
4. False.	25. False.	46. True.
5. True.	26. True.	47. True.
6. False.	27. False.	48. True.
7. False.	28. True.	49. False.
8. False.	29. True.	50. False.
9. True.	30. False.	51. True.
10. False.	31. True.	52. True.
11. True.	32. True.	53. False.
12. True.	33. True.	54. False.
13. True.	34. True.	55. True.
14. False.	35. True.	56. False.
15. False.	36. False.	57. True.
16. True.	37. True.	58. True.
17. True.	38. True.	59. True.
18. True.	39. True.	60. True.
19. False.	40. False.	61. True.
20. False.	41. True.	62. False.
21. True.	42. False.	63. False.

DANGEROUS CARGO REGULATIONS, 1954

The official Coast Guard publication CG–187, entitled *"Explosives or Other Dangerous Articles on Board Vessels,"* is now available for public use. This publication contains the regulations governing the minimum requirements established to promote safety in the handling, stowage, storage, and transportation of explosives or other dangerous articles or substances on board all vessels, both foreign and domestic, on any navigable waters within the limits of the jurisdiction of the United States including its Territories and possessions, excepting only the Panama Canal Zone.

These regulations replace the publication of the same name, dated April 9, 1941, as revised July 17, 1950.

This is a cost publication and may be obtained from the Superintendent of Documents, Washington 25, D. C., at $2.50 per copy. It cannot be obtained from the U. S. Coast Guard.

U. S. GOVERNMENT PRINTING OFFICE: 1955

THE SEA

In the evening when I look
Out on the indifferent sea
And watch the setting sun
Burning cloud embers in the sky,
I look down on my tired hands and know
The sea will not have much more of me;
I'm ready to sit by the fireside
And only dream of ships and the sea.
Dream of majestic liners
And tired freighters too,
And the few that are left
That time has swept, with their white canvas too.
Watching the dancing flames
And reviewing a thousand names
Of hardy men and sturdy ships
That have served upon the seas,
And see in the flickering firelight
Whirling wheels and whirling legs
Of an eastern rickshaw,
And smell in the smoke
The musk of Eastern cities;
And hear in the crackling logs
Prayer calls and a thousand babbling tongues
The sotto music of the Orient;
And lilting voices of singing girls.
This ship is no better or no worse
For my many years in her,
And when I look down on my tired hands
I know! It's a fireside for me.

John E. Smith
1st Assistant Engineer
First Prize