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. 10 December 1953 No. 12

See page 163

The revised International Rules are effective January 1, 1954

Proceedings of the

MERCHANT MARINE COUNCIL

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The Merchant Marine Council of the United States Coast Guard

CONTENTS

DISTRIBUTION (SDL) 55e

A: a, aa, b, c, d, dd (2); remainder (1).
B: e (35); c (16); g (2); f (4); h (3); 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: o (New London only) (1).
List 141 M.
List 111.

SIDE LIGHTS ON THE RULES

The *Side Lights on the Rules* series will be held in abeyance for one issue in order that space normally devoted therefor may be used for the timely quiz on the opposite page. The next article in the *Side Lights on the Rules* series will appear in the January 1954 issue.

PORTABLE RADIO APPARATUS FOR LIFEBOAT USE

By a recent letter, the Federal Communications Commission informed the Commandant, U. S. Coast Guard, that to date the following types of lifeboat portable radio apparatus have been found to comply with the requirements of the Federal Communications Commission and have, accordingly, been approved:

Manufacturer	*Model No.*
Radiomarine Corporation of America	ET-8053
Mackay Radio & Telegraph Company	401-A

Should any additional models of such apparatus be type approved, a similar notice to that effect will be published in the "Proceedings."

WHAT A DIFFERENCE A YEAR MAKES

Most readers of this article can remember things as they were a year ago. Conditions affecting you personally might have been better, worse or the same, and while we hope everything has improved, that is not our point.

We were thinking about 96,000 people, all residents of these United States, and representative of every walk in life, who cannot read these words. They died during the last year because of an accident. These are the people—men, women, boys and girls—who laughed, loved, and lived amongst us just a short year ago, and whose lives were cut short when they had so much to live for.

Most of them had families too. Wives, husbands, parents and children who feel their loss so keenly and who suffer even more from these fatal mistakes.

You have a lot to live for, too. Play it safe. Make Safety a way of life and insure your presence next year when the roll is called again.

You're really helping yourself.

—Courtesy, Safety News

Your Fact Forum

The following questions are in the nature of a true-false quiz on the International and Inland Rules of the Road under which seagoing mariners will sail as of January 1, 1954. Unlike most quizzes, this is not an instance where one may say 70 percent is fair, 85 percent good, 95 percent excellent, or the like. Insofar as seagoing 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; and, if they don't know them well enough to answer each question correctly, they must realize their knowledge is lacking and start studying—fast. 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 171.

1. The revised Internatinnal 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 range-light, 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 troll-

ing 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.

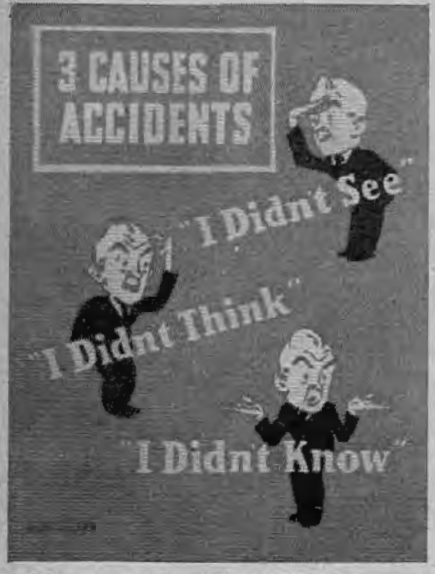
True _____. False _____.

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 _____.



Think and act with *SAFETY* uppermost in your mind—ALWAYS!

—*Courtesy Safety Council*

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_____.

64. Under the revised International Rules, all vessels not engaged in fishing shall, when under way, have to keep out of the way of any vessels fishing with lines or nets or trawls.

True_____. False_____.

65. Under the revised International Rules, the five or more short blast danger signal is a mandatory all-purpose signal.

True_____. False_____.

66. Under the revised International Rules, one of the distress signals is a radio signal consisting of a series of 12 dashes, sent in 1 minute, for the purpose of actuating auto alarms of other vessels and thus securing attention to distress calls or messages.

True_____. False_____.

67. Under the revised International Rules, orders to helmsmen may be given as "right" *or* "starboard" rudder or "left" *or* "port" rudder; while under Inland Rules, orders to helmsmen must be given as "right" rudder or "left" rudder.

True_____. False_____.

FOOD FOR THOUGHT

Many words and a great deal of space are devoted each month to the discussion of personnel injury causes and prevention. Safety publications go into cause and prevention from many different points of view, citing statistics and specific incidents to point out lessons which might be learned. Little discussion, however, centers on what to do once a personnel injury occurs.

This is somewhat surprising in view of the fact personnel injuries must be recognized as frequent occurrences throughout maritime circles in spite of concerted efforts to prevent them.

The stressing of what to do when a personnel injury is suffered is of vital importance to any safety program. It should not be overlooked in the process of stressing the cause and prevention of injuries.

The well considered safety program will carefully balance the frequency of injuries against their severity. These two factors are closely interrelated. The first takes into account the number and rate of injuries. The latter reflects the seriousness of the injuries, both in lost man-hours and disability on the part of the injured. Unless the preventive action is so successful that no personnel injuries can be anticipated, continuous thought and effort must be given to minimizing the severity of injuries as well as to causes and preventive actions.

While frequency may be properly considered in terms of cause and prevention, severity, on the other hand, is greatly dependent on whether right or wrong treatment is given at the right time. Under ideal circumstances a physician will be available to render this treatment. Other times treatment will of necessity have to be rendered by someone at the scene of the accident, due to the lack of a physician or due to the danger to the injured in delaying treatment pending the arrival of the physician.

To know what to do once a personnel injury occurs it is necessary to know first aid. Whether it is knowing what to do or what not to do, that knowledge is basic to minimizing the severity of personnel injuries once they have occurred.

Every man on board ship should know the basic general rules with respect to the administration of first aid, i. e.:

1. Take charge of the situation at once.

2. Keep crowds or onlookers back, and make as much room as possible in which to work.

3. Keep the victim warm and yourself cool.

4. Examine the victim for injuries not readily apparent.

5. Procure the services of a doctor as soon as possible, and when calling the physician, be sure to state the exact location of the patient, the nature, cause, and probable extent of his injury, and the character of the first aid being given.

6. Above all, do not move the patient, but keep him lying down until the seriousness of the injury has been determined.

What to do and what not to do in the case of an injury should be drummed into all hands. Some of the most important do's and dont's of first aid are:

WHAT TO DO

1. Stop severe hemorrhages at once and control all bleeding by direct pressure, digital (finger) pressure, or tourniquet.

2. Administer artificial respiration at once if the patient has ceased to breathe.

3. In case of poisoning make the patient vomit as soon as possible.

4. Treat for shock as a matter of course at all times, remembering, however, that if the victim has a head injury or suffers severe bleeding, or if there appears to be internal bleeding or sunstroke, stimulants must on no account be given.

5. Dress wounds with sterile gauze and bandage them.

6. Treat burns by covering with boric acid ointment or with bicarbonate of soda dissolved in water, or even by submersion in a bath of warm sea water, to the end that air may be excluded from the burned area and the pain lessened.

7. "Splint them where they lie." This applies to all fractures.

8. Reduce dislocations wherever possible with safety.

9. Keep the injured person warm and quiet. In this connection, it is well to remember that several blankets under the patient may be worth twice as many over his body.

WHAT NOT TO DO

1. Do not give a physic or cathartic to a person who complains of bellyache, since a pain in the abdomen, particularly about halfway between the naval and the hip on the right side, may indicate appendicitis. It is wise to avoid the possibility of ruptured appendix and death resulting from a cathartic.

2. Never allow bleeding, especially, if severe, to go unchecked. Even when not severe, continued bleeding weakens the victim and

lowers his resistance. Loss of half the body's blood is fatal, and unconsciousness from bleeding, not caused by hysteria, very often denotes that the patient is near to death.

3. Do not leave a tourniquet on more than fifteen or twenty minutes, as the shutting off of the blood supply from the affected part will damage the living tissues or even cause gangrene. If the bleeding continues after the blood is allowed to circulate, tighten it again.

4. Do not cover a tourniquet with bandages, since it may be forgotten, and may thereby also be made unavailable for adjustment.

5. Do not use wire, line, cord, or similar thin material for tourniquets, as it cuts through the tissues and may cause serious harm.

6. Do not neglect to administer artificial respiration where breathing has stopped, because a delay of a few minutes may be fatal.

7. Do not forget to remove false teeth or other foreign objects from the mouth of an unconscious person, for they may obstruct the air passages and cause death by suffocation.

8. Do not fail to turn the head of an unconscious person to one side after he has vomited; if this is not done he may take particles of food into his lungs, with resultant inflammation or even suffocation.

9. Do not give an unconscious person anything to drink, as the liquid may get into the lungs and cause inflammation or suffocation.

10. Do not give stimulants where internal bleeding is suspected or if there is severe bleeding or head injury, even though shock exists. The stimulation would cause the heart to pump greater quantities of blood, which would be lost through the wound. Further, where in head injuries the blood escapes from a torn artery inside the head and cannot find its way out of the body, there is an accumulation under the skull which presses against the brain or into it, quickly causing death.

11. Do not move a victim with a fracture until it has been splinted, otherwise a simple fracture may become compound.

12. Do not apply splints without padding; use blankets, pillows, cotton, or even newspaper under the splint where possible. If a splint is not correctly padded the flow of blood may be stopped, and unless this condition is relieved, death of the tissues, or gangrene, may ensue.

13. Do not put knots over wounds, particularly head wounds.

14. Do not touch a wound with the fingers or with unsterile instruments if it can be helped, because they are likely to leave germs which cause infection.

15. Do not wash wounds, even with soap and water, since germs may be deposited while so doing. Use iodine or other standard antiseptic tincture, and then apply it only once, being careful to work from the wound outward and not from the surrounding skin toward the wound.

16. Do not bandage a wound until the iodine has dried, as the skin is apt to blister when wet iodine is covered up.

17. Do not use iodine on burns.

18. Do not permit the victim to get up too soon; he may faint and injure himself, or the exertion may induce shock or failure of the heart.

19. Do not lift an injured person without asking whether he can move his hands or feet; he may have a broken neck or back or an injured spinal cord.

20. Do not fail to test a stretcher before putting the patient on it.

21. *Do not fail to call a doctor whenever possible.*

22. *Do not administer first aid unless you know what you are doing.*

The last two don'ts listed are especially important. Effective first aid presupposes an elementary knowledge of the human body, at least as concerns its structure and the functions of the various parts. If the first-aider is weak on this point, it is incumbent upon him that he gain the necessary knowledge before he attempts to render first aid. In turn, there should never be any misconception that first aid is an adequate substitute for a doctor.

Adequate discussions of the human anatomy and physiology for purposes of first aid may be found in many recognized texts. Most vessels will have a copy of The Ship's Medicine Chest on board. They may also have other first aid publications from the American Red Cross or the United States Public Health Service. There is no difficulty in obtaining a recognized text on the administration of first aid if there is none on board ship.

Whether or not a vessel's personnel are familiar with the proper administration of first aid may be readily determined in a ship safety committee discussion by asking individuals to diagnose the following injuries or conditions and describe the first aid treatment:

1. Subject jumps from a pier into a small boat and is unable to bear weight on his right foot. His ankle begins to swell noticeably.

2. Subject loses his footing on a slippery deck and tries to break his fall by throwing out his arm. He suffers a painful injury. There is a deformity of the arm at the elbow, and swelling begins.

3. Subject, cranking an engine, is struck a sharp blow on the forearm when the engine kicks back. There is a protrusion under the skin, and the subject is unable to use his arm.

4. Subject is unconscious from a hard blow on the head, but there is no evidence of a fracture of the skull.

5. A mess cook overturns some hot grease on his foot. Blisters form.

6. A man's arm is severely burned by an explosion of gasoline. The burn extends below the top layer of the skin.

7. In a moment of excitement, a man suddenly drops to the ground unconscious.

8. A man is found unconscious with a penetrating wound in his shoulder.

9. After a fall, an unconscious man is bleeding from the nose and ears.

10. A man is found unconscious, his breathing being irregular and forced.

11. Subject suddenly becomes pale, short of breath, covered with perspiration, and complains of a gripping pain in the upper abdomen and chest.

12. A man suffers painful swelling after a break in the skin on his wrist.

13. Subject is working on deck, and his nose begins to bleed.

14. A man becomes violently ill thirty minutes after eating.

15. A man who has been working in the hot sun suddenly collapses, with a flushed face, rapid pulse, and high body temperature.

16. A man has been working in a boiler room for several hours. He suddenly collapses in a cold sweat, and has a weak pulse.

17. A man is thrown off his feet, striking a sharp object which cuts a gash in his forearm.

18. A man is struck by a swinging boom across the chest. In spite of treatment his color remains very pale and his pulse continues to be very rapid.

19. In a heavy sea, a man is thrown against a life-line. In a few minutes he vomits blood or material resembling coffee grounds.

20. A man goes to a medicine cabinet in a dark room in search of cough medicine. Immediately after swallowing a liquid from a bottle, he becomes violently ill.

21. A man who has been in a lifeboat for a long time complains of pain in his feet. They are swollen, discolored, and numb.

These are common occurrences. They may occur at any time, and if it is not known what is the proper thing to do preventable permanent injury or death may be suffered.

NUMBERED AND UNDOCUMENTED VESSELS

The table below gives the cumulative total of undocumented vessels numbered under the provisions of the Act of June 7, 1918, as amended (46 U. S. C. 288), in each Coast Guard district by Customs ports for the quarter ending 30 September 1953. Generally speaking, undocumented vessels are those machinery-propelled vessels of less than 5 net tons engaged in trade which by reason of tonnage are exempt from documentation. They also include all other vessels propelled in whole or in part by machinery which have not been issued marine documents by the Customs owned in the United States and found on the navigable waters thereof.

Coast Guard district	Customs port	Total
1 (Boston)	(4) Boston	16,598
	(1) Portland, Maine	11,647
	(2) St. Albans	1,309
	(5) Providence	4,885
	Total	34,439
2 (St. Louis)	(45) St. Louis	10,050
	(12) Pittsburgh	2,073
	(34) Pembina	71
	(35) Minneapolis	2,214
	(40) Indianapolis	3,560
	(42) Louisville	2,761
	(43) Memphis (part)	5,225
	(46) Omaha (part)	274
	(47) Denver	14
	Total	26,242
3 (New York)	(10) New York	44,179
	(6) Bridgeport	8,862
	(11) Philadelphia	18,618
	Total	71,659
5 (Norfolk)	(14) Norfolk	15,390
	(13) Baltimore	22,147
	(15) Wilmington, N. C	7,368
	Total	44,905
7 (Miami)	(18) Tampa (part)	22,780
	(16) Charleston	1,920
	(17) Savannah	2,885
	(49) San Juan	369
	(51) St. Thomas	95
	Total	28,049
8 (New Orleans)	(20) New Orleans	19,520
	(18) Tampa (part)	578
	(19) Mobile	7,521
	(21) Port Arthur	4,159
	(22) Galveston	11,639
	(23) Laredo	2,278
	(24) El Paso	9
	(43) Memphis (part)	65
	Total	45,769
9 (Cleveland)	(41) Cleveland	7,045
	(7) Ogdensburg	2,505
	(8) Rochester	4,877
	(9) Buffalo	4,304
	(36) Duluth	2,619
	(37) Milwaukee	3,618
	(38) Detroit	17,354
	(39) Chicago	5,757
	Total	48,139
11 (Long Beach)	(27) Los Angeles	9,916
	(25) San Diego	1,937
	(26) Nogales	90
	Total	11,943
12 (San Francisco)	(28) San Francisco	12,655
	Total	12,655
13 (Seattle)	(30) Seattle	17,609
	(29) Portland, Oreg	8,942
	(33) Great Falls	456
	Total	27,007
14 (Honolulu)	(32) Honolulu	3,155
	Total	3,155
17 (Juneau)	(31) Juneau	7,338
	Total	7,338
Grand total		361,300

FOR WANT OF A SPRING

In the October 1953 "Proceedings" the case of a tug and barge damaging a lock gate to the extent of about $65,000 due to the lack of a 10-cent bolt in a connecting link was reported under Lessons from Casualties. An amazingly similar case occurred recently at one of the locks on the Ohio River. However, in this case the villain was a defective 10-cent spring and the tab for repairs was only $35,000.

A diesel tug propelling seven empty barges was entering one of the locks, the barges assembled forward of the tug, three wide, with one short barge alongside the tug. When the head of the tow was about 300 feet from the upper lock gate, both tug engines were rung up "Stop". A line was passed to the lock attendant who was walking up the side wall, following the progress of the tow. When the head of the tow arrived at a point about 150 feet from the lock gate, the telegraph was rung up for Half Astern on the port engine. The Pilot very quickly noticed that headway was not decreasing and rang up Half Astern on the starboard engine. Still there was no slackening of headway. The Pilot then rang up Full Astern, both engines, several times on the telegraph. At this point, the Mate and deck crew were feverishly attempting to snub down the tow using mooring lines. It became apparent that the port engine was still turning Slow Ahead.

The Pilot jumped for the voice tube but could not raise the engineer. Just at this moment, the head of the tow, in spite of the straining mooring lines, arrived at the lock gate with a dull thud. Almost immediately, the Pilot, through the voice tube, heard an engine stop and start up again—in reverse. Apparently the engineer had glanced out for a little "port hole navigation" and then leaped into action. The tow moved back from the lock gate, but too late—$35,000 too late.

When the ensuing squall of consternation, altercation, vituperation, and then investigation died down, it was determined that a small spring which actuates the bell in the engine room telegraph repeater was broken. Amidst the noise of the large diesel engines, no audible signal was made by engine orders from the pilothouse, and the engineer was not conscious of engine orders being rung at the crucial moment. The 10-cent spring was duly replaced, and the tug and tow resumed their journey. How well a few minutes spent in checking over the condition of the engine room telegraph, chains, sprockets, strikers, springs, and other parts at routine intervals would have paid off on this occasion.

THE BREATH OF LIFE

A 25-year-old Chief Pumpman on a T–2 tanker died recently when a strap of the fresh air breathing apparatus he was wearing parted under strain. Neglect to keep the emergency apparatus in good condition was the direct cause of the fatal accident, although other circumstances were involved. The death certificate listed as causes of death: (a) Compound fracture of skull; (b) ruptured spleen and right kidney; (c) hemorrhage and shock; and (d) asphyxia. This gruesome combination of conditions, any one of which could have been fatal, came about through a thin trail of error, neglect, lack of foresight, and plain bad luck.

A leak in the stripping line of No. 4 center tank had been found after discharging cargo at the last port. The tanker being at sea with mild weather prevailing, it was decided to test the stripping lines with a hydrostatic pressure of 25 p. s. i. to pinpoint the leak and to carry out repairs underway in order to facilitate butterworthing of the tanks. Early in the morning the fresh air breathing apparatus was brought out and examined on deck near No. 4 tank by the Chief Mate, Chief Engineer, Chief Pumpman, Bos'n, and a Deck Maintenance man. This included testing the face piece and hose for tightness. The Chief Pumpman donned the equipment and indicated it was working satisfactorily. The original black elastic fabric straps on the face piece had deteriorated and parted, but they had been replaced by heavy twine. Further tightness was accomplished with the adjustable nonelastic fabric straps around the head.

Originally the men had planned to use new equipment which had come aboard 2 months before, i. e., a Mine Safety Appliance Set, No. BM–1905 A, consisting of two face pieces with two harnesses and hoses, and a pump. Fresh air breathing apparatus had not been needed on this vessel during those 2 months. Upon breaking out this new set, it was discovered that there were two 25-foot sections of hose, rather than two 50-foot sections as had been ordered. When delivery had been made to the vessel, the Chief Mate had signed a receipt showing a complete set of fresh air breathing apparatus with two 50-foot hoses, and had not actually measured the hoses. Since over 50 feet of hose was needed on this occasion, the group of men then decided to use one of the new face pieces with the 25-foot section of hose provided, with an additional 50-foot section of old hose attached thereto. It was then discovered that the fittings and threads of the old and new hoses were not interchangeable and could not be fitted together.

At this point consideration was given to butterworthing the tank without repairing the leak in the stripping line. Unfortunately, however, after a thorough examination of the old equipment, it was decided to use it and proceed with the job. The Chief Pumpman, who was to perform the task while wearing the equipment, indicated no apprehension as to its effectiveness. Indeed, the Chief Mate had used the old equipment himself in No. 4 tank four months before with no ill effects. The tank was not gas free and contained residue of motor gasoline mixed with several inches of water which had leaked from the stripping lines during the hydrostatic tests. It was obvious that fumes in dangerous concentrations were to be expected in the tank and that the use of breathing apparatus was absolutely necessary.

With the Deck Maintenance manning the airpump, the Chief Pumpman, wearing the old equipment, descended the ladder through the expansion trunk, a distance of 43 feet to the bottom of the tank. This ladder, in two sections, was located on the starboard side of No. 4 center tank, the upper section leading forward and down to a landing approximately 20 feet below the Main Deck, and the lower section leading aft and down from the landing to the bottom of the tank. This meant that the safety line, a new 12-thread Manila line spliced to the ring of the leather harness which the pumpman was wearing, had to cross several metal edges in its lead from the pumpman to deck. The pumpman located the stripping line leak between the second and third intercostals from the forward tank bulkhead at a point about 30 feet from the bottom of the ladder, and returned on deck for necessary tools.

With a pipe clamp for the line, a box wrench, and a flashlight, the pumpman returned to the tank bottom. He was seen to drop his flashlight, search for it a few seconds, but then continue to the point of the leak and crouch over the pipe and fumble about for a few minutes. Suddenly he straightened up and hastened for the ladder, becoming confused and apparently losing his sense of direction. He missed the ladder, finally grasped it, then collapsed. Seeing the pumpman in apparent difficulty, the group of men on deck immediately heaved away on the safety line to try to hoist him bodily from the tank. As his body, limp in the harness rose on the end of the line, the Chief Mate descended about 10 feet into the tank to help clear the line and the unconscious man from several metal edges over which they must pass, especially one piece of angle iron installed as a brace to the ladder. At the moment the pumpman's body, hanging with head below the point of suspension, reached the level of this brace or strut, and as the Chief Mate started to clear the body to pass above the strut, the leather belt of the breathing apparatus safety harness suddenly parted. Before the horror-stricken eyes of the men standing helplessly on deck, the pumpman's unconscious form hurtled 30 feet straight down, landing with a sickening crunch headfirst on the steel tank bottom. After a moment of awesome realization by the witnesses, one man ran to call the Master.

Using the newer breathing apparatus and the two 25-foot sections of new hose, which were barely enough to reach, the Master himself descended into the tank and tied another line around the man's body. This time the pumpman's body was successfully hoisted and laid out on deck. Artificial respiration and the use of the respirator were continued for almost four hours. However, there was no sign of pulse, heartbeat, or breathing. The weary and desperate group of men finally were forced to admit the obvious, and the pumpman was pronounced dead. It is extremely likely that he died instantly after the fall, in view of the injuries listed on the death certificate based upon autopsy.

Close examination of the leather harness which had parted showed, by rolling the leather tightly between the fingers, that there were fine hairline cracks on each side of the break, which was about in the middle of the belt and near a riveted loop. No cuts or abrasions of the belt were evident. The leather had apparently become brittle and lost considerable of its tensile strength through hardening and natural deterioration. While the indirect cause of the death was undoubtedly some leakage or other

trouble with the face piece experienced by the pumpman, which allowed him to inhale toxic fumes and then forced him to hasten for the ladder, the principal cause of death was the failure of the leather harness. It is likely the pumpman would have been revived had he been successfully removed from the tank on the first try. Another indirect cause was the insufficiency of the new breathing gear which had been aboard for 2 months without having been properly checked, since it was not known until too late that there were only 50 feet of hose. This necessitated using the old equipment, the condition of which was evidently questioned by the Chief Mate and others before it was used on the above fatal date. Indeed, it was fortunate that the pumpman had made his way to the foot of the ladder, for if he had collapsed at the point of pipe repair, other lives may have been endangered in trying to reach him, the new hose being the only other available on the vessel and being too short to reach that point.

The principal lesson from the above woeful incident is the continual need for maintenance and care of safety equipment. Had the Master or Chief Mate checked the new gear when it first came aboard and noticed the shortage of hose, or had they examined and tested the safety harness of the old gear periodically, particularly before it was used on this occasion, or had they replaced the defective elastic straps of the old face piece when those straps first deteriorated, the 25-year-old Chief Pumpman might well have been hale and hearty today. Above all, had the Chief Mate listened to the small voice saying, "Don't!", in his subconscious mind, as the group deliberated the wisdom of attempting the repairs at all with the old breathing apparatus, the Grim Reaper might have passed up this visit. While it was fortunate in this case that two sets of breathing apparatus were aboard the vessel, enabling the Master to go down in the tank, nevertheless the second set would never have been needed if the first set had been properly maintained. Like life preservers, regardless of *quantity* available, when the time of need comes, it is the *quality* of the one on you that counts. The periodic testing, examination, and maintenance of fresh air breathing apparatus and other similar safety equipment is just as important a shipboard duty of the pertinent ship's officers in the eyes of the Coast Guard as any other duty stated or implied by law or regulation.

The Master and Chief Mate on the above vessel were both reported to be reliable, conscientious and capable officers, efficient and attentive to duty. Yet each, while 99 percent thorough, had allowed the 1 percent of laxity to creep in by taking too much for granted. A young man's life was snuffed out; and the Master and Mate must bear this tragic mischance with them the rest of their lives. Don't let it happen to you!

CAUGHT IN THE BIGHT

"Eternal vigilance is the price of freedom"—from injury or death.

Handling heavy weights with cargo rigging places all hands within handshaking distance of sudden disaster, especially if there is one moment's carelessness or relaxation of vigilance. This is all the more true when the rigging is wire with heavy metal blocks and fittings.

A man's foot was amputated in a split second several months ago aboard a ship carrying a deckload of lumber because vigilance was relaxed for a moment. The wire didn't even slow up as it went through flesh and bone.

Discharging of general cargo from the holds was about finished, though some of the deckload of cargo was still on deck. Crew members were engaged in securing cargo gear, as each hold was completely discharged. Hatch beams and boards were put in place by the stevedore gang, and the crew was cradling and securing booms for sea.

In lowering the port and starboard booms at No. 2 hatch, it was necessary to work in a crouched position on the boom table, due to some of the remaining piles of lumber protruding almost across the table. Space did not allow more than one man at a time to work on the topping lift wire. Accordingly, an AB entered the available working space and passed a chain stopper onto the topping lift by taking two half hitches and then reverse wrapping the 6-thread manila tail, which was spliced on the end of the chain stopper, on the wire. He then turned this stopper over to the ill-fated seaman mentioned above, to hold, while the wire was transferred from the table cleat to a winch drum.

The weight of the boom was supported by this wire.

The stage was set.

The first seaman then started to remove turns of wire from the cleat and ease the strain onto the stopper. The stopper took the strain and held properly, but the large heavy deck fairlead block leaned over, as the strain through it relaxed, and rested against the adjacent lumber pile.

The two seamen then removed the final turns of wire from the cleat and stretched out the 30 to 35 feet of wire to clear all the kinks and turns. Next, they hauled the wire to the winch and started reaving turns on the niggerhead.

As they heaved the slack of the wire toward the winch, a slight strain on the heavy deck fairlead block toppled it against the leg of the seaman holding the stopper. No doubt this blow caused some annoyance and pain to this man, as he momentarily released his grip on the manila tail of the stopper.

As the wire began to slip through the stopper, the two men at the winch tried to hold it, but could not get a grip. They had to let go, as the wire suddenly ran with a rush, impelled by the heavy weight of the boom. The wire snapped toward the man at the stopper and, in less time than it takes to tell, a bight had encircled his right foot and amputated it clean at the ankle, the heavy fairlead block serving as the "chopping block". Other turns of wire encircled the upper parts of his body and arms inflicting painful bruises and injuries.

Several men on deck, attracted by the crash and scream, ran to assist, and in a few seconds had the wounded man disentangled from the wire and stretched out on deck. A tourniquet was rigged on the injured leg to stem the flow of blood, and an ambulance arrived a few minutes later to transfer the man to a shoreside hospital.

This serious injury was probably caused by the cramped conditions of working space around the fairlead block and chain stopper, due to the partial deckload of lumber remaining in the area. Had there been no interference, such as was caused by the bulkiness of the lumber, it is most probable that the fairlead block would not have struck the man's leg and that he would have maintained a better grip on the stopper. However, another factor which directly abetted the accident was the neglect of a principle of good seamanship in failing to apply half hitches in the tail of the stopper on the standing part of the wire. Had this been done, the momentary release of grip by the seaman when the block struck his leg would not have allowed the wire to start to slip. One law which has never been repealed or relaxed for a single moment is Newton's law of gravity. In flying a plane or in handling heavy weights, remember: The first mistake is never forgiven. Like fire, gravity is an invaluable ally, but an implacable enemy.

One man with one foot will forever remember the consequences of a slip with heavy weights. Will you?

MERCHANT MARINE PERSONNEL STATISTICS

MERCHANT MARINE OFFICER LICENSES ISSUED

Quarter Ending 30 September 1953

DECK

Grade	Original	Renewal
Master:		
Ocean	57	469
Coastwise	9	43
Great Lakes	1	14
B. S. & L.	28	108
Rivers	10	72
Radio officer licenses issued	51	
Chief Mate:		
Ocean	80	106
Coastwise		7
Mate:		
Great Lakes		
B. S. & L.	13	23
Rivers	11	42
Second Mate:		
Ocean	72	102
Coastwise		
Third Mate:		
Ocean	166	80
Coastwise		1
Pilots:		
Great Lakes	9	14
B. S. & L.	162	136
Rivers	77	43
Master: Uninspected vessels	10	10
Mate: Uninspected vessels	3	2
Total	708	1,272
Grand total	1,980	

ENGINEER

Grade	Original	Renewal
STEAM		
Chief Engineer:		
Unlimited	78	649
Limited	23	212
First Assistant Engineer:		
Unlimited	62	180
Limited	7	27
Second Assistant Engineer:		
Unlimited	99	213
Limited	3	2
Third Assistant Engineer:		
Unlimited	230	156
Limited	3	
MOTOR		
Chief Engineer:		
Unlimited	5	64
Limited	20	73
First Assistant Engineer:		
Unlimited	6	19
Limited	12	10
Second Assistant Engineer:		
Unlimited	6	15
Limited	2	2
Third Assistant Engineer:		
Unlimited	77	81
Limited	2	3
Chief Engineer: Uninspected vessels	12	1
Assistant Engineer: Uninspected vessels	9	1
Total	656	1,708
Grand total	2,364	

INVESTIGATING UNITS

Coast Guard Merchant Marine Investigating Units and Merchant Marine Details investigated a total of 3,370 cases during the third quarter of 1953. From this number, hearings before Examiners resulted involving 78 officers and 243 unlicensed men. In the case of officers, 1 license was revoked, 10 were suspended without probation, 31 were suspended with probation granted, 5 licenses were voluntarily surrendered, 12 cases were dismissed after hearing and 6 hearings were closed with admonitions. Of the unlicensed personnel, 11 certificates were revoked, 15 were suspended without probation, 64 were suspended with probation granted, 31 certificates were voluntarily surrendered, 2 hearings were closed with admonitions, and 20 cases were dismissed after hearing.

ORIGINAL SEAMEN'S DOCUMENTS ISSUED

Quarter Ending 30 September 1953

Type of document	Atlantic coast	Gulf coast	Pacific coast	Great Lakes and rivers	Total
Staff officer	109	28	43	5	185
Continuous discharge book	127	6		1	134
Merchant mariner's documents	2,904	1,233	1,686	3,284	9,107
AB any waters unlimited	268	60	143	30	501
AB any waters, 12 months	153	39	96	178	466
AB Great Lakes, 18 months	7	2	10	49	68
AB tugs and towboats, any waters					
AB bays and sounds [1]					
AB seagoing barges	1				1
Lifeboatman	368	9	241	25	643
Q. M. E. D.	449	83	184	165	881
Radio operators	27	6			33
Certificate of service	2,759	1,041	1,586	3,107	8,493
Tankerman	13	58	6	80	157

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

NOTE.—The last 11 categories indicate number of endorsements made on United States merchant mariner's documents.

WAIVER OF MANNING REQUIREMENTS

Waivers	Atlantic coast	Gulf coast	Pacific coast	Great Lakes	Total
Deck officers substituted for higher ratings				2	2
Engineer officers substituted for higher ratings	1	4	3		8
O. S. for A. B.	15	6	6	6	33
Wiper or coalpassers for Q. M. E. D.	12	3	5	21	41
Total waivers	28	13	14	29	84
Number of vessels	26	11	13	24	74

NOTE: In addition, individual waivers were granted to permit the employment of 53 able seamen holding certificates for "any waters—12 months" in excess of the 25 percent authorized by statute.

AMENDMENTS TO REGULATIONS

[EDITOR'S NOTE.—The material contained herein has been condensed due to space limitations. Copies of the documents may be obtained by writing to Coast Guard Headquarters, care of Commandant, Washington 25, D. C.]

TITLE 46—SHIPPING

Chapter I—Coast Guard, Department of the Treasury

Subchapter O—Regulations Applicable to Certain Vessels During Emergency

[CGFR 53-45]

PART 154—WAIVERS OF NAVIGATION AND VESSEL INSPECTION LAWS AND REGULATIONS

VESSELS OPERATED BY PACIFIC MICRONESIAN LINES, INC.

The purpose of the following waiver order designated section 154.35, as well as 33 CFR 19.35, is to waive the navigation and vessel inspection laws and regulations issued pursuant thereto which are administered by the United States Coast Guard to the extent necessary to permit the operation of the U. S. S. *Chicot* (AK 170), U. S. S. *Gunner's Knot* (official number 248-054), U. S. S. *Errol* (AKL 4), U. S. S. *Metomkin* (AKL 7), U. S. S. *Roque* (AKL 8), and U. S. S. *Torry* (AKL 11), as well as the schooner *Frela*, the schooner *Milleeta*, and the survey boat *Baker* or other vessels which may be used as substitutes for these vessels and four non-self-propelled tank barges (YOGN, numbered 13, 18, 20, and 21) which are the property of or in the custody of the Department of the Interior, by the Pacific Micronesian Lines, Inc., to furnish transportation in the Trust Territory of the Pacific Islands, as well as between the Trust Territory of the Pacific Islands and the United States, including its Territories and possessions, and foreign ports, until and including June 30, 1954, unless sooner terminated by proper authority, and to supersede the waiver order dated June 30, 1953, and published in the Federal Register July 9, 1953 (18 F. R. 4009).

EQUIPMENT APPROVED BY THE COMMANDANT

[EDITOR'S NOTE.—Due to space limitations, it is not possible to publish the documents regarding approvals and termination of approvals of equipment published in the Federal Register dated October 6, 1953 (CGFR 53-41; 53-42). Copies may be obtained upon request from the Com-

mandant (CMC), U. S. Coast Guard, Washington 25, D. C.]

AFFIDAVITS

The following affidavits were accepted during the period from 15 September to 15 October 1953:

Northern Indiana Brass Co., 935 Plum Street, Elkhart, Ind., Valves.

Pacific Brass Foundry of San Francisco, 251 Second Street, San Francisco, Calif., Castings.

Standard Fittings Co., 82 Herbert Street, Framingham, Mass., Fittings.

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 September to 15 October 1953, is as follows:

The Lunkenheimer Co., Cincinnati 14, Ohio, Heat Nos. 461 through 467.

H. B. Sherman Manufacturing Co., Battle Creek, Mich., Heat Nos. 782 and 783.

ANSWERS, YOUR FACT FORUM

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

U. S. GOVERNMENT PRINTING OFFICE: 1953