

PROCEEDINGS OF THE MERCHANT MARINE COUNCIL

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UNITED STATES



COAST GUARD

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

CG 129

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MERCHANT MARINE COUNCIL

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The
Merchant Marine Council
of the United States
Coast Guard

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

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FRONT COVER

Aerial view over East River showing the New York skyline. Photograph courtesy The Port of New York Authority.

BACK COVER

The imposing title page of "The Mariners Mirror," sea atlas, illustrated with monsters of the deep, compasses, globes, lead-lines and other navigational instruments. Published in 1588, it was the English edition of the world's first printed sea atlas, "Spiegel der Zeevaart," compiled by J. L. Waghenar and produced in 1584.

DISTRIBUTION (SDL 62)

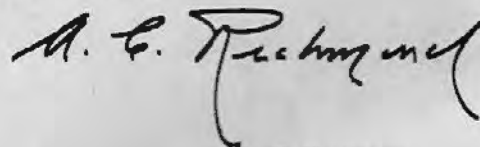
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NATIONAL MARITIME DAY 1956

May 22d of each year is the day the Nation pauses to pay tribute to its Merchant Marine. Since the beginning of our Nation, the achievements of the American Merchant Marine in maintaining the flow of international trade and travel have been outstanding.

Today, at the beginning of the atomic era, the vital importance of the Merchant Marine to our national defense and foreign commerce has taken on a new significance.

We, in the Coast Guard, are proud to take part in the national acclaim that will be rendered to the American Merchant Marine.



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

The Congress of the United States by a joint resolution approved May 20, 1933 (48 Stat. 73), designated May 22 as National Maritime Day, thus honoring our Merchant Marine by commemorating the departure from Savannah, Georgia, on May 22, 1819, of the *Savannah* on the first transoceanic voyage by any steamship, and requested the President to issue a proclamation annually calling for the observance of that day.

HARD STARBOARD—FULL ASTERN!

A RECENT Admiralty ruling in a disastrous collision case (*Haiti Victory—Duke of York*) should clarify any doubt existing in the minds of navigators as to what the legal obligation is for the use of radar.

The case was first heard by the U. S. District Court for the Eastern District of Virginia. That court exonerated the *Haiti Victory* from all blame for the collision with the *Duke of York*, and ruled that *there is no legal requirement that radar be used as an anti-collision device when the visibility does not seem to be impaired.*

The Circuit Court of Appeals for the Fourth Circuit, in a noteworthy decision handed down on February 13, 1956, affirmed the lower court's ruling.

CIRCUMSTANCES OF COLLISION

Briefly, the circumstances surrounding the collision were as follows:

The *Duke* was a British channel ferry, running across the North Sea on a westerly voyage from the Hook of Holland to Harwich, England. The *Haiti* was an MSTs transport, bound from Dover to Bremerhaven, with a North Sea pilot on board. The col-

lision occurred just before dawn a mile and one-half off Galloper light vessel. Prior to the collision the *Haiti* had clear visibility.

The *Duke's* radar had broken down but she was proceeding at clear weather speed through fog banks.

When the *Haiti* drew abeam Galloper light vessel on her northerly course, the mate on watch switched the radar on to obtain the range. He put the PPI scope on the 4 mile range and as soon as he saw the pip of the light vessel obtained the range of 1½ miles. He noted the time in the bridge logbook as 0414. He then turned the radar off.

FIRST NOTICE

The first notice either vessel had of the other was when the bow lookout and the pilot on the *Haiti* heard a one blast whistle signal on the starboard bow. The pilot rushed in to the radar, switched it on and observed a pip off the starboard bow. He went out on the wing to look for the object, saw nothing, and stopped the engine. Seconds later the pilot saw the Harwich ferry crossing from starboard to port; gave the order hard right; blew one short blast; and went full speed astern. The full speed astern signal

was logged at 0415½. The collision occurred at 0416 *Haiti* time.

On the *Duke*, the bow lookout was the first to see the *Haiti*. He saw the white light of a vessel about six points on the port bow, just under one-quarter of a mile away and called the bridge.

The Captain was standing on the forward part of the bridge near the whistle pull. The *Duke's* mate was in the chartroom working out a Decca fix when he heard the lookout's report. He seized his binoculars as he went by the chart table, and ran out to the port wing of the bridge where he saw a white light bearing 2 to 3 points on his port bow. He trained his binoculars on the white light and saw a green light immediately. He ran into the wheelhouse shouting, "She's showing a green light."

The Captain replied, "I know. I know. It's a green light." The mate testified he heard the *Duke's* whistle blow three short blasts and a moment later heard the engineroom telegraph handles go over (presumably an astern order). The Captain ordered, "Hard to starboard. I don't think we'll clear. Get everybody out." The mate rang the general alarm. He was doing that when the collision occurred and he was thrown into the Master.

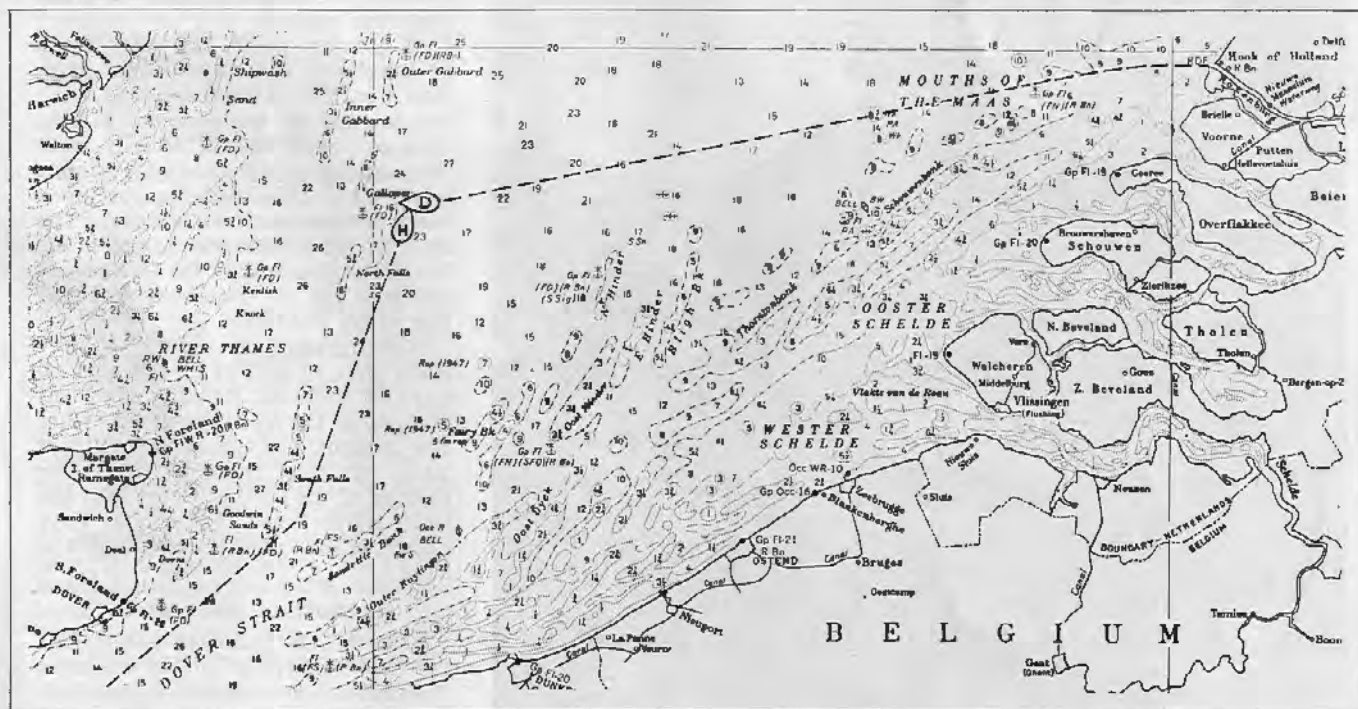


Figure 1. Chart of southern approach to North Sea where *Duke of York* and *Haiti Victory* collided.

At the moment of collision the port engine of the *Duke* was stopped and the starboard engine was going astern.

The *Haiti*'s bow made contact about 25 feet forward of the *Duke*'s bridge, on the port side at an angle of about 80°. The relative speed of the *Duke* was between 2 and 4 times the speed of the *Haiti* at the moment of collision.

The *Duke* suffered extensive damage—the bow section forward of the point of collision broke off and sank in 25 fathoms of water. Seven persons were lost. The after section remained afloat and was towed to England.

DUKE APPEALS

On appeal to the Court of Appeals the British Transport Commission contended, among other points raised, that the District Court committed error in exonerating the *Haiti* and holding the *Duke* solely to blame for the collision. The Court of Appeals commented:

"The fault of the *Duke* seems quite clear and is not seriously contested. She had left the Hook of Holland bound west for Harwich, England. We quote from the opinion of the District Judge, which finds ample support in the record (131 F. Supp. 712, 715):

The *Duke* was running through a "patchy fog"—"very thick at times" and then fairly clear intervals. She was piercing one fog bank after another. * * * From 0300 on, the fog was "very thick." * * * In such weather the speed of the *Duke* was too fast for good seamanship; it violated the "moderate speed" injunction in the fog rules of Article 16, International Rules, 33 USCA 145n. It was an overriding and major fault; collision was a foreseeable result. * * * At 0412 and up to the collision, visibility was one-quarter mile, the captain, his mate and lookout have said, and even in this interval the speed was 12 knots, *half ahead*. Not until the *Haiti* was sighted, the ships one-quarter mile apart, and the collision a minute or two off, did the engines go to *slow*, six knots.

"Had the weather been clear and the visibility good all around, under

the *Starboard Hand Rule*, the *Duke* would have been the privileged, the *Haiti* the burdened, vessel. This rule, though, did not apply here by virtue of the fog surrounding the *Duke*.

HAITI EXONERATED

"This brings us to the District Court's exoneration of the *Haiti*, a discussion involving at least three points: (a) Actual or constructive knowledge on the part of the *Haiti* that she was running into, or alongside, a fog bank; (2) The conduct of the *Haiti* after the *Haiti* heard the whistle of the *Duke*; (3) The negligent use, or failure to use its radar by the *Haiti*. A careful study of the record convinces us that we cannot reverse the District Court's exoneration of the *Haiti*.

"Visibility was excellent as the *Haiti*, with a Trinity House pilot, left Dover, bound for Bremerhaven, Germany. Lights were distinct on both sides of the English Channel. Around 0400 Galloper Lightship was easily picked up by the *Haiti*, about one point on the port bow. A very short while before the *Haiti* came abeam of Galloper, a crossing vessel was seen by the *Haiti*, about 4 miles away. The *Haiti* altered her course to 050°, went around this vessel's stern and then resumed her plotted course of 036°. This happened about 0414, approximately 3 minutes before the collision, and this crossing vessel came from the east, the direction from which the *Duke* was coming.

"A trawler, about 1½ miles north of the *Duke*, and on a course practically parallel to the *Duke*, gave nothing to indicate the presence of fog. Galloper gave no fog signals until 0445, and then signalled only 'cloudy wet dew.' The collision occurred about 2 miles east of Galloper. The mate of the SS *American*, which left Dover 17 minutes after the *Haiti*, testified that his log contained no notation of fog until 0441.

"Confirmatory testimony to the effect that there was no fog and no signs of impaired visibility apparent to those on the *Haiti* was given by her bow lookout, her helmsman and her mate. We must, therefore, affirm the holding of the District Court that the *Haiti* never knew, nor should have known, of the fog which enveloped the *Duke*.

CONDUCT ON HAITI BRIDGE

"This brings us to the conduct of the *Haiti* just prior to the collision. The first notice those on the *Haiti* had of the presence of the *Duke* was a single blast whistle from the *Duke*.

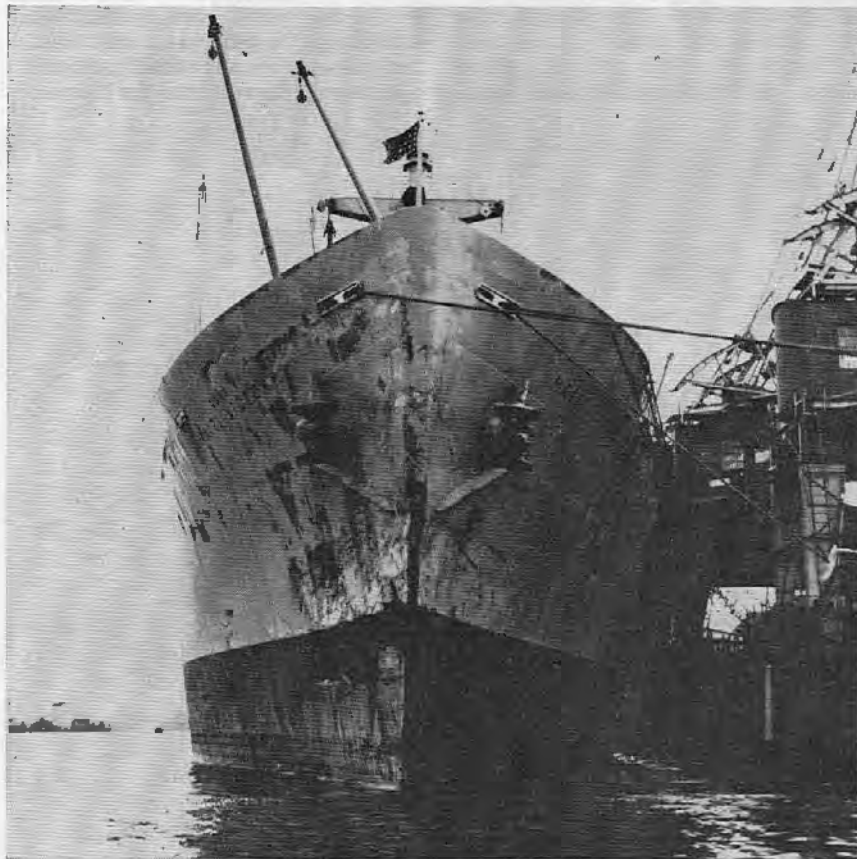


Figure 2. Bow of *Haiti Victory* following collision.

The bow lookout of the *Haiti* promptly reported to the bridge by telephone that he had heard what he thought was a ship's whistle off the *Haiti*'s starboard bow. This whistle was also heard by the helmsman and pilot of the *Haiti*. The time, then, was apparently about 0414.

"The pilot dashed out on the starboard side of the wheelhouse, looked around, saw nothing, and went to the radar, switched it on, and saw an echo off the starboard bow. He again went out on the wing, still saw nothing and stopped the engines—around 0415. Those on the *Haiti* thought the single blast they heard was a fog signal, but they were not sure of this.

"Apparently in about a minute, the *Haiti* pilot saw the *Duke* crossing from starboard to port, gave the order hard right, blew one short blast and went full speed astern. The full speed astern was logged on the *Haiti* at 0415½, the collision at 0416. The *Haiti* changed course from 036° to 079° before striking the *Duke*. The pilot of the *Haiti* testified that when he first saw the *Duke* looming out of the fog, there was nothing that could be done by the *Haiti* beyond the hard right and full speed astern. A survey of the deformation of the plates, which is the resultant of the velocities of the ships, showed the speed of the *Duke*, at the moment of impact, to be from two to four times the speed of the *Haiti*.

"Under these facts, we must affirm the holding of the District Court exonerating the *Haiti* from blame in its conduct just before the collision. This includes the contention of the *Duke* that the *Haiti* violated Rule 16 (33 USCA 92)."

RADAR QUESTION

The Circuit Court also commented: "This brings us to the radar question. Since the visibility was good, the radar on the *Haiti* was switched to stand by about 2 hours after the pilot boarded the *Haiti*. On stand by, no images are visible on the radar screen, but the radar is kept heated and, as the pilot testified, 'when you do switch it, it comes on immediately.' It was proved that the delicate cavity magnetron of the *Haiti* radar has a short life, so that the actual use of the radar must be carefully rationed.

"Counsel for the *Duke* make much of the failure of those on the *Haiti* to observe the *Duke* when, for purely navigational purposes, the radar was switched on as the *Haiti* neared Galloper and the *Haiti* mate failed to find the *Duke* on the radar screen. On this point, we quote from the opinion of the District Judge, (131 F. Supp. 712, 717):

Strenuous insistence of fault in the *Haiti* is urged for her failure to make use of radar, particularly, when the *Haiti*'s mate had glanced into the radar at Galloper. The assertion is plausible but actually unsubstantial. . . . His purpose was to get his distance off Galloper. . . . He did not see the *Duke* on the PPI (planned position indicator) repeater scope, though probably there was a pip on the right half of the scope. But he was not looking for anything to starboard; he had no reason to go to the radar to search in any direction. His failure to see the *Duke* was not negligence, for it was not the result of neglect of an obligation. No obscurity obligated him to use his radar, and there was nothing else to put him on notice of any need for it.

"With this, we must concur. See. *The Southport*, 82 Ll. L. Rep. 862; *United States v. The Australia Star*, 172 F. (2d) 472, 476, cert. denied 338 U. S. 823; *Wood v. United States*, 125 F. Supp. 42, 51; *Pocahontas Steamship Co. v. The Esso Aruba*, 94 F. Supp. 486, aff'd. 197 F. (2d) 422; *Anglo-Saxon Petroleum Co. v. United States*, 88 F.

Supp. 158; Wylie, *Use of Radar at Sea* (Institute of Navigation, London, 1953).

"As to the defective radar on the *Duke*, the District Judge observed, (131 F. Supp. 712, 717):

At this point it is well to refer to the *Duke*'s radar. Its use would have avoided the collision and its unavailability was due to neglect of repair. There was ample warning—a day or two—of its disrepair. Had it been in operation, the situation so urgently demanding its services, omission to use it would clearly have been negligence. However, as the *Duke*'s excessive speed was the predominant fault leading to the collision, it is not necessary in this case to pass upon the question of whether or not, in the absence of statute requiring radar, a lack of diligence in maintaining existing radar facilities is negligence."

From the foregoing, it seems evident that the *Duke of York v. Haiti Victory* case will be quoted for many years in future Admiralty decisions involving collisions and the use of radar.



Figure 3. View of forward section of *Duke of York* shortly after collision. The section forward of the point of impact broke off and sank. Survivors can be seen on the foredeck of the *Haiti Victory*.



nautical queries

Q. In a motor lifeboat, how does the torque of the propeller affect the boat when the ordinary right-handed marine engine is used?

A. With the helm amidship, and the engine running ahead, the boat's head gradually goes to port. With the helm amidship and engine going astern, the boat's stern goes to port rapidly. A small amount of right rudder is necessary to counteract this tendency when going ahead. As the effect of the torque is greater when going astern, advantage may be taken of this tendency when maneuvering in close quarters, by turning the boat to the right. By going ahead with right rudder, and astern with left rudder, and repeating the process, the stern is sheered rapidly to port and the boat is quickly turned. In handling lifeboats, it is best to use the engines at a moderate speed, both ahead and astern, while maneuvering in order to get the maximum benefit in steering of the action of the propeller stream against the rudder.

Q. What is the principal cause of the tides?

A. The moon's attraction upon the water of the earth.

Q. Is the action of the rudder on a motor lifeboat more pronounced than on a large vessel?

A. Yes, because of comparative rudder areas. A motor lifeboat can be steered when going astern much better than a vessel can.

Q. Describe the general trend of the Gulf Stream from the Florida Straits and give its approximate velocity?

A. From the Straits of Florida north to latitude 31 degrees, thence ENE. to latitude 32 degrees, then a little north of NE. of Cape Hatteras. The maximum current is 11 to 20 miles outside the 100-fathoms curve. Its velocity varies from 3 to 5 knots off Fowey Rocks, to 1.5 knots off Hatteras.

Q. What is meant by a "rhumb line?"

A. A line on the earth's surface which intersects all meridians at the same angle; the loxodromic curve.

Q. Where would you find the time of slack water after high or low water in any given port of the United States?

A. In the "Current Tables," a small supplement to the "Tide Tables" published by the U. S. C. and G. Survey.

Q. What is meant by the augmentation of the moon's semidiameter?

A. This is the increase in its semidiameter due to the observer being brought nearer to it as its altitude increases.

Q. Why is the sun hottest when it is directly overhead?

A. Because then its rays pass through fewer layers of the earth's atmosphere.

Q. What is meant by "waxing moon" and "waning moon"?

A. A waxing moon is a crescent moon with the open side to the east; in a waning moon the open side is toward the west.

Q. State under what circumstances you may expect the deviation to change.

A. It will change by altering a course steered for a long time, also by change of latitude, cargo of iron, collision, stranding, shock from heavy seas, heeling over, gunfire, alterations in structure of the ship, in some cases shifting of ventilators or booms. It will also change in a new ship.

Q. Which moves first when the rudder is put over, the ship's head or stern?

A. The ship's stern moves first.

Q. Where is the pivoting point of the vessel?

A. About one-third of her length abaft the stern.

Q. Name seven different means of plotting the ship's position.

A. 1. By dead reckoning.
2. By terrestrial bearings.
3. By observation of celestial bodies.

4. By combination of celestial and terrestrial observations.

5. By a chain of soundings and the course.

6. By radio-compass bearings.

7. Radio bearings and celestial line of position.

Q. What is the difference between the expressions, "visibility of a light" and the "circle of visibility"?

A. "Visibility of a light" refers to the extreme distance which the light is visible at any height. The candle-power of the light is the determining factor. "Circle of visibility" refers to the distance at which a light is visible when the height of eye is 15 feet above sea level. The height of the light and the height of the observer are the determining factors in "circle of visibility."



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.

One of the names which has a distinguished place on this roll is that of Fred A. Anderson, Able Seaman.

On July 11, 1943, his ship the *SS Samuel Parker*, while anchored off the Sicily beachhead was subjected to strafing and wave after wave of bomber attacks. The ship was loaded with gasoline and ammunition. During one of the attacks incendiary bullets set fire to the cargo.

On October 11, 1944, the President of the United States conferred the Merchant Marine Distinguished Service Medal on Mr. Anderson, in accordance with the following citation:

For heroism under enemy action.

His ship, *SS Samuel Parker*, supporting our landing on the Sicily beachhead, was unloading high explosives and aviation gasoline when a wave of enemy planes strafed the ship with incendiary and explosive bullets. Several of these hit into open hatches setting fire to the cargo. Though an explosion which might completely demolish the ship was imminent, Able Seaman Anderson and the Chief Officer unhesitatingly descended into one hold with fire hose and extinguished the fires in the ammunition; and then, stopping only long enough to strap on foamite shoulder tanks, descended into the other hold and extinguished the gasoline fires.

His heroism in the face of almost certain death was in keeping with the finest traditions of the United States Merchant Marine.



INTRODUCING THE PROPOSED NEW AMERICAN RULES OF THE ROAD

Ever since 1948 when the International Conference on Safety of Life at Sea amended the International Rules of the Road, navigators have become more aware of these rules.

Along with their awareness has come the realization that the United States has the dubious distinction of having the most confused maze of laws and regulations pertaining to water navigation of any maritime nation.

Today, in the course of one voyage, a vessel, large or small, often must navigate waters that are governed by several sets of rules. This means that the harried navigator must be familiar with 2 or 3 sets of rules, thereby increasing the chance for confusion and error. It also means that the navigator who never ventures from his own waters, and who is intimately familiar with the local rules, must be bothered by strange vessels from other areas whose navigators might not be familiar with the local rules.

The other maritime nations have adopted a simple, uninvolved system—they use the International Rules on their inland waters—all their waters. This means that their navigators need to understand only one set of rules.

CHAOTIC SYSTEM

In contrast is our chaotic system, which consists of 3 basic codes having 13 overlapping sets of rules—plus the International Rules.

It is not surprising then, that as more people became aware of our antiquated system of regulating navigation, the Coast Guard commenced to receive inquiries concerning the archaic hodge-podge. "Why doesn't the Coast Guard do something about it?" has been the general nature of the inquiries.

The answer is, "The Coast Guard intends to do something about it." However, the problem—to bring some semblance of uniformity out of an entangled complexity—is enormous.

EARLY DEVELOPMENT

This maze of laws, statutes and regulations did not come into existence overnight. It developed with the growth of our country. In the early 1800's, water traffic was strictly commercial and was usually confined to one body of water. This meant that a set of rules based on local conditions could be used without confusion. Some of these local rules

were gradually absorbed into the regulations for the entire area and are now known as Pilot Rules.

In the 1900's, water traffic underwent a major transformation—there is now a far greater number of pleasure craft than commercial. In addition, vessels continually pass from one area to another. For example, with the opening of the St. Lawrence Seaway, ships will depart from Great Lakes ports daily bound for Europe. Consequently, the system of local laws which served local commercial traffic admirably a century ago is now unwieldy and cumbersome.

First of all, the navigable waters of the United States are divided into three areas—Great Lakes, Western Rivers, and Inland Waters. Each area has its own basic statutory set of rules plus one or more separate sets. In addition, the Motorboat Act is applicable throughout the United States, which means that in each area certain provisions of the act overlap and amend the basic statutory regulations.

A brief summary of the 13 sets of rules and regulations is as follows:

GREAT LAKES

The Great Lakes area—that portion of the Lakes controlled by the United States, and their connecting and tributary waters has five sets of rules:

- (1) The Great Lakes Rules, a set of statutory rules passed by Congress.
- (2) The Motorboat Act, an act of Congress which amends part of the Great Lakes Rules.
- (3) The Pilot Rules for the Great Lakes.*
- (4) The General Regulations, a set of regulations adopted by the United States Army Corps of Engineers, to supplement the Great Lakes Rules and the Pilot Rules.
- (5) The Anchorage and Navigation Requirements, St. Marys River, a set of special regulations adopted by the Coast Guard to control traffic on the St. Marys River between Point Iroquois on

*Editor's Note: Pilot Rules is the title for a body of regulations that have been adopted over the years to supplement the statutory rules. For many years the Bureau of Marine Inspection under the Department of Commerce was the enforcing agency with authority to adopt such regulations. In 1942 when the Coast Guard absorbed the BMIN, these Pilot Rules were inherited as regulations to be enforced.

Lake Superior to Point Detour on Lake Huron.

WESTERN RIVERS

The Western Rivers area takes in the Mississippi River from the Huey P. Long Bridge in New Orleans to its source; all the waters flowing into the Mississippi or its tributaries; the Red River of the North; part of the Atchafalaya River; and all of the Illinois River below Lockport, Ill. This network has four sets of rules:

- (1) The Western Rivers Rules, a set of statutory rules passed by Congress.
- (2) The Motorboat Act, an act of Congress which amends part of the Western Rivers Rules.
- (3) The Pilot Rules for the Western Rivers.*
- (4) The General Regulations, a set of regulations adopted by the United States Army Corps of Engineers, to supplement the Western Rivers Rules and the Pilot Rules.

INLAND WATERS

The third area, Inland Waters, includes all navigable waters of the United States flowing into the Atlantic or Pacific Oceans, or Gulf of Mexico, which are not part of the Western Rivers; and certain fringes of the Atlantic and Pacific Oceans and Gulf of Mexico. There are four sets of rules:

- (1) The Inland Rules, a set of statutory rules passed by Congress.
- (2) The Motorboat Act, an act of Congress which amends part of the Inland Rules.
- (3) The Pilot Rules.*
 - (a) Inland waters.
 - (b) Special towing regulations for the Hudson River, Lake Champlain, and adjacent waters.
 - (c) Special towing regulations for the Gulf Intracoastal Waterway, its connecting waters, and other waters flowing into the Gulf of Mexico.
- (4) The Boundary Lines of inland waters, a set of descriptive regulations which define specific outer limits of the area.

In response to the clamor that "something be done," the Coast Guard, 3 years ago, commenced a comprehensive study of all existing rules and regulations which govern water traffic—their origin, purpose and conflict with other rules. When the study was completed, a draft of an all-inclusive set of rules was made—rules that would adequately govern water traffic throughout the United States, taking into account

(Continued on page 87)

FLAG ETIQUETTE*

UNDER present world conditions every American merchant vessel that touches foreign soil is an official ambassador of American good will. Accordingly, it is important that the protocol associated with the display of flags be understood and followed by merchant mariners. A reader of the "Proceedings" submitted to the Coast Guard the following article on flag etiquette. The Coast Guard congratulates him for compiling this information, and it is reprinted below:

OUR FLAG

At this time, it is imperative that we, as American citizens, give more thought to our flag—our national emblem. There is probably nothing which stirs the writer so much as the words from our national anthem, "Gave proof through the night that our flag was still there."

When British pressure began to increase in our colonies in 1775, the colonists placed upon their own banners a rattlesnake, cut into 13 pieces, representing the 13 colonies, and carrying the motto: "Join or die." When they became better united, they placed upon the flag, which had a yellow background, a rattlesnake about to strike, coiled over the motto: "Don't tread on me." This flag was first raised by Captain John Paul Jones on the ship of war *Alfred* in December 1775.

In June 1777 it was resolved in Congress that the flag of the United

States be 13 alternate red and white stripes—7 red and 6 white, with the red stripes on the outside, and with a blue field containing 13 white stars, 1 for each State in the Union. In 1794 the flag was given 15 stars and 15 stripes, following the entrance of Vermont and Kentucky into the Union. In 1818 it was decided to reduce the stripes again to 13 and add only a star each time a new State was admitted to the Union.

RECOMMENDED PROCEDURE

IN THE U. S. A.—IN PORT

Every day:

All flags go up at 0800. First up is the "ensign" on the flagstaff. Hoist the "jack" on the jackstaff on approved vessels of the U. S. Naval Reserve. On some vessels, it is the custom to hoist the "jack" only on sailing day—this is incorrect. Hoist the "house" flag on the mainmast truck with the Naval Reserve pennant above it. On some vessels, it is the custom to hoist the Naval Reserve pennant on the triatic stay only on sailing day—this is incorrect. The "house" flag and Naval Reserve pennant are generally secured to sticks so that when aloft, they will fly clear and not be fouled of stays, etc.

At sunset, haul down all flags. Haul the "ensign" down last. Do not let the "ensign" touch the deck and burn old "ensigns."

Sailing day:

0800. The every day flags go up as usual with the addition of the following: The flag of the country you are to sail for goes up on the foremast truck; it is a common practice to secure this flag also on a stick so that it will fly clear. The "Blue Peter" on the starboard yardarm and the U. S. mail flag, on the port yardarm. If, by chance or through error, the Naval Reserve pennant is hoisted only on sailing day, it should be flown from the starboard yardarm and the "Blue Peter" on the triatic stay. The pilot flag, if any, will be flown from a convenient halyard, where it will fly clear and free.

When the last line is let go, the flagstaff "ensign" comes down and a gaff "ensign" goes up on the gaff. If the vessel does not have a gaff, the "ensign" remains on the flagstaff. The "jack" and "Blue Peter" are also hauled down when the last line is east off. All flags except the pilot flag are hauled down at sunset; or if the pilot station is well out, haul down all remaining flags after the pilot is away.

Arrival day:

Just before arriving at the pilot station, the following procedure should be followed: Hoist the "ensign" on the gaff. Hoist the flag of the country you sailed from (excepting your own country) on the foremast truck. Hoist the house flag with the Naval Reserve pennant on the mainmast truck; and the U. S. mail flag on the port yardarm. Hoist the pilot flag "G" on the triatic stay. If the run from the pilot station to the berth is a long one, the flags, with the exception of the pilot flag, are not hoisted until shortly before arriving at the quarantine station. Then the appropriate quarantine flag is also hoisted on the starboard yardarm. Of course when the pilot comes aboard, the pilot flag "H" takes the place of the pilot flag "G."

When pratique is granted, haul the quarantine flag down—the watch officer must be alert to see that this is done before proceeding to berth.

When the first line is ashore, haul the gaff "ensign" down and two-block

*EDITOR'S NOTE: Five years ago this article on flag procedure was printed in the "Proceedings." It is felt that sufficient time has elapsed to once again print this, always timely, article. Unfortunately, when originally published the author's name was not mentioned and since has been lost. It would be appreciated if the author would contact the Editor.



the flagstaff "ensign." Haul up the "jack" on the jackstaff. When hoisting the "jack," always be sure that the two pointers of the stars point down and one up.

At anchorage:

At anchorage, arriving at or leaving, the same procedure is carried on as for arriving at berth or leaving berth. The anchor takes the place of the first line ashore and when the anchor is aweigh, it is the same as when the last line is cast off. Do not neglect to haul down the pilot flag when he leaves the vessel. When shifting ship, it is not necessary to raise the pilot flag "H" if a pilot or docking pilot is aboard. However, as a matter of courtesy, ask him and be governed by his orders.

FOREIGN PORTS

Arrival day:

The same as arriving in a U. S. port, with the following exception: The flag of the country you are entering must always be hoisted at the foremast truck—and flown every day from 8 a.m. to sunset, while in that port. This is a sign of courtesy and all foreign ships entering U. S. waters are expected to show the U. S. "ensign" in the same manner. In some foreign countries, a fine is incurred for not following this procedure. Local rules should be obtained from the pilot and strictly obeyed.

Sailing from foreign ports:

Same as the procedure for sailing from a U. S. port. On leaving a foreign port, fly the flag of that country from the foremast truck. This is done for the same reason as on arrival day.

DECORATING SHIP

When decorating ship, it is very important that all flags and pennants are ready to go up together at 0800. This is difficult to do on most ships, due to cargo being discharged, booms in the way, etc. The everyday flags are hoisted as usual, with the following additions: A gantline should be rigged from the bow to the foremast truck, with the haul-down by the foremast. International Code flags should be secured to this gantline and every fourth one should be a pennant. Rig a long gantline from the foremast truck to the mainmast truck with a haul-down at each mast. The distance between the two masts must be known so that when this gantline is hauled taut from both ends, with the International Code flags attached, they will all fly clear. Raising this gantline properly with code flags attached is a difficult maneuver. Place

several men at certain places to clear the gantline. Use several bites of heaving lines along the length of the gantline to clear the wireless aerial. With these bites the gantline can be pulled clear of the aerial and then the heaving lines may be removed. Another gantline should be run from the base of the flagstaff to the mainmast truck with the haul-down by the mainmast and rigged similarly to the others. A number of International Code flags should hang over the stern from the base of the flagstaff with a weight attached and so rigged as to be just clear of the water.

When decorating ship, use only International Code flags with the following additions:

In the U. S. A.

A second "ensign" should be hoisted to the foremast truck. On Government vessels in a U. S. A. port, all masts should have an "ensign."

Foreign ports

Same as the U. S. A. except that the flag of the country you are in is always hoisted to the foremast truck. Note—If you arrive in any port or an Army base or Naval base and find that all ships are decorated or that all ships are flying their "ensigns" at half-mast, wait until you are secured to your berth before decorating ship or before you haul your flag to half-mast.

At sunset, all flags should be hauled down at the same time, under all conditions.

"ENSIGN"

When the colors are to be placed at half-mast, they should always be two-blocked first and then hauled down to the half-mast; also, when the colors are hauled down from the half-mast, they must be two-blocked first and then back down. This is very important and shows that the officer on watch is alert.

The "ensign" is always hauled up first and down last. At sunset when the ship is decorated, haul the "ensign" down slowly so that it will not be down before the rest of the flags.

Hoist the "ensign" unfurled—never make it up and break out.

SALUTING

There appears to be considerable misunderstanding on the part of merchant marine officers as to what classes of naval vessels should be saluted. Although this matter is not set forth explicitly, usage has determined that all men-of-war, including Coast Guard cutters, should be so

recognized. Of course, as a matter of courtesy, there is no harm in saluting any naval auxiliary.

It is, of course, necessary and a matter of good taste to salute a vessel flying the flag of any high Government official, member of the armed forces, member of a foreign delegation or representative of a foreign government—who, under the law, is entitled to fly his own flag.

Shortly before a man-of-war (or ship to be saluted) is abeam of you, haul the "ensign" to the dip (meaning half way down the flagstaff or half way down on the gaff). When the man-of-war has hauled his colors close up after he has dipped, you do likewise. Be sure the man at the halyards understands your directions thoroughly. The best procedure to follow is to have him haul the colors to the dip when you blow your whistle and then when you blow the second time haul the "ensign" close up again.

MISCELLANEOUS

When it is necessary to hoist your vessel's international call flags, hoist them on the triatic stay or on any convenient halyard where they will fly free and clear.

SPECIAL CITATION

The American Export Lines recently received the Government's highest award for ship sanitation. The citation was presented by Assistant Surgeon General Otis L. Anderson of the U. S. Department of Health, Education, and Welfare.

It commended the company for having brought each of its 30 ships to the standards of the Public Health Service. Before the award can be won, each vessel must score a rating of 95 percent or better after an inspection involving 166 items of sanitary construction and maintenance.

Under the provisions of the Foreign Quarantine Regulations and Interstate Quarantine Regulations, the Public Health Service guards against the admission of communicable diseases into the United States and their spread across state lines.

The periodic inspections conducted by vessel inspectors embrace such major sanitation features as potable water, washwater, swimming pools, waste disposal, vermin control and food sanitation.

Only three other companies have won the citations since it was established by Surgeon General Leonard A. Scheele in 1953. They were the Standard Oil Co., of California, The Luckenbach Steamship Co. of New York, and the Esso Shipping Co. of New York.

BRIDGE THROTTLE

New York *Herald Tribune*, November 20, 1955.—The Liberty ship, *John Sergeant*, now undergoing conversion as the first American flag merchant vessel to be driven by a gas turbine, will be equipped with dual controls so that she can be maneuvered from the bridge as well as the engineroom.

As the conversion work proceeds at the Newport News (Va.) Shipbuilding and Dry Dock Co. under the Maritime Administration's experimental program on new forms of propulsion for the surplus Liberties of World War II, five marine engineers are undergoing training in Schenectady, N. Y., to learn how to keep the gas turbines running after the *Sergeant* goes to sea next fall. Part of their training will be to control their automatic impulse to jump for the throttle whenever the engineroom signal is sounded. The vessel's gas turbine and controllable pitch propeller can be operated directly from the bridge in much the same fashion as a truck's motor and steering is operated by the driver.

ENGINEERS STILL NECESSARY

One United States Lines official pointed out that even if the responsibility for operating the propulsion machinery of the *John Sergeant* passes to the bridge, the engineers will be as necessary as ever.

They will still have to see that the turbine and propeller are turning in the same direction and at the same speed as indicated on the telegraph. They must be ready to take over if something goes wrong and of course a lever on the bridge won't end the need for repairs and maintenance. Since this know-how comes from years of experience in the engineroom, it is doubtful that deck officers will willingly take over the added responsibilities.



(Courtesy Maritime Reporter)

J. J. McMullen, Chief of Maritime Administration's Office of Ship Construction and Repair, described the *John Sergeant* gas-turbine installation in a paper read at the Naval Architects and Marine Engineers Society recent annual meeting.

According to Mr. McMullen, "The gas-turbine and controllable-pitch propeller controls are integrated so that the speed of the vessel can be controlled by a single lever from either the bridge or engineroom consoles. Selection between bridge or engineroom control is accomplished by means of a transfer valve located on the engineroom console."

The turbine will be of an open-regenerative type, working through double-reduction gears. The hydraulically operated propeller will have four blades and a diameter of 17½ feet.

One of the ship's boilers will be modified for oil firing or waste heat operation. A new boiler will be installed for port use. With controllable-pitch, no reversing turbine is necessary, but a 750-horsepower steam turbine will be installed for emergency use.

HIGHLIGHTS ON THE RULES

During the last few years with the advent of radar, the question as to whether a lookout must be posted on the bow of a vessel has arisen on many occasions. Many river operators have contended that with radar the pilot on the bridge often has better visibility than a lookout on the bow of the lead barge. While there are undoubtedly strong arguments pro and con, a recent Federal Court decision should clarify the situation.

In the *Tenaru River v. Commercial Clipper*, 1955 A. M. C. 2376, the United States District Court, Western District Kentucky, ruled that the failure to have a lookout at the head of a push-tow in the Ohio River at night is a violation of the Inland Rules.

The facts of the case were as follows: Two towing vessels were pushing barges ahead of them in the Ohio River at night. Both vessels had searchlights and radar, but neither had a lookout on the bow of the leading barge. Visibility was good. Each pilot sighted the other vessel, and one-blast passing signals were exchanged. Nevertheless, the port forward corner of the port barge of the upbound tow collided with the port after side of the downbound towing vessel.

The court concluded that both vessels were at fault, principally because

neither had a lookout at the head of the tow, and that when it became apparent to the master of each vessel that the port to port passing was not being executed properly, each should have stopped his vessel, backed, and blown danger signals.

AMERICAN SHIP RECEIVES TRIBUTE

An unexpected and rare tribute was recently paid to a United States merchant ship by a British author, Mr. David Woodward, in his book on the German armed merchant-raiders in World War II. The name of the book is "The Secret Raiders," and it cites the unbelievable heroism of the Liberty Ship SS *Stephen Hopkins*.

On September 27, 1943, this ship, armed only with one 4-inch gun engaged the raider SS *Stier* in a battle to the death, in which both vessels were sunk with heavy loss of life. The raider was armed with six 6-inch guns, antiaircraft guns, and four torpedo tubes.

The book relates:

The fight of the Stephen Hopkins was nearly unique in the history of the war at sea. . . . The Stephen Hopkins had good fortune, but her crew could not know that. They could only know that within a very short time all of them, or nearly all of them, would be dead; they could not know, as they ran to their action stations, that their great courage would be rewarded and that the last but one of the German raiders was to accompany them and their own ship to the bottom of the sea. Nothing in the tradition and history of any sea service, naval or mercantile, can surpass the story of the Stephen Hopkins.

An interesting sidelight to the incident is that when the raider's commanding officer returned to Germany, he reported that he was engaged by a heavily armed ship with good fire control, and that her total armament was at least one 8-inch and six 4.7-inch guns, as well as antiaircraft weapons. He stated he was sure that she was an auxiliary warship.

The Maritime Commission honored this Liberty in 1945 by naming her one of the "Gallant Ships" of the World War II merchant fleet, and commending the stark courage of her valiant crew in their heroic stand. Her Captain, Paul Buck, received the Merchant Marine Distinguished Service Medal posthumously.

*EDITOR'S NOTE: An account of this heroic incident was printed in the September 1955 issue of the Proceedings.

NOTICE TO SMALL BOAT OWNERS

The Maritime Administrator Clarence G. Morse, has asked all small boat owners to exercise precautions against the sale of their craft to persons who are not citizens of the United States, without prior approval of the Maritime Administration.

Approval of the Maritime Administration, United States Department of Commerce, is required, pursuant to sections 9 and 37 of the Shipping Act, 1916, before any American owned water craft, regardless of size, type or documentation, may be sold to an alien. The only exception is contained in a regulation issued by the Maritime Administration which permits, without further action by the Maritime Administration, the sale of undocumented water craft of less than 40 feet in length and of less than 50 horsepower, provided that the purchaser is not a citizen of any of the 14 satellite nations: Soviet Union, Latvia, Lithuania, Estonia, Poland, Czechoslovakia, Hungary, Rumania, Bulgaria, Albania, North Korea, the Soviet Zone of Germany, Manchuria, or Communist China.

Mr. Morse said that an increasing number of illegal sales of small craft to aliens have been reported. For the most part this has involved such vessels as motorboats, auxiliary sailing craft and cabin cruisers which were sold to aliens by the United States citizen owners directly, or through yacht brokers or boat yards.

Section 37 of the Shipping Act, 1916, as amended, was invoked by the President's Proclamation of December 16, 1950, and under that statute it is incumbent upon the seller to ascertain the citizenship of the proposed buyer, and, if such buyer is an alien, to file an application with the Maritime Administration requesting approval of such a sale. Appropriate application blanks for that purpose may be obtained at the District Offices of the Maritime Administration at New York, New Orleans, and San Francisco, as well as at the various collectors of customs on the east, gulf and west coasts and District Coast Guard offices within those districts.

In view of the penalty provisions of section 37 of the Shipping Act, 1916, which provide for forfeiture of the vessel and punishment of the guilty party by a fine of not more than \$5,000 or by imprisonment of 5 years, or both, Mr. Morse said that the Maritime Administration is again calling the attention of the public to the provisions of that statute so that the owners of small vessels may not become involved in violation of the law.

AMERICAN MERCHANT FLEET

There were 1,078 vessels of 1,000 gross tons and over in the active oceangoing United States merchant fleet on March 1, 1956, according to figures released recently by the Maritime Administration. This was five more than the number active on February 1, 1956.

There were 24 Government-owned and 1,052 privately owned ships in active service. These figures did not include privately owned vessels temporarily inactive, or Government-owned vessels employed in loading grain for storage or undergoing repairs. They also excluded 61 vessels in the custody of the Departments of Defense, State, and Interior.

There was a net increase of five vessels in the active, and two vessels in the total (active and inactive) privately owned fleet, with the purchase of two combination passenger cargo vessels, the *Monterey* and the *La Guardia*, from the Government.

The Maritime Administration's active fleet remained the same, while its total fleet decreased by one, with the sale to private interests of two combination vessels and the transfer of a tanker from Navy surplus to the reserve fleet. This made a net gain of 1 vessel in the total merchant fleet, active and inactive, which numbered 3,235 on March 1, 1956.

Orders for 3 tankers by private shipping companies brought the total of merchant oceangoing vessels being built or under conversion to 36.

MASTER MARINER

Merchant marine licenses must be renewed every 5 years and it is usually a routine occurrence for the Coast Guard to issue the new license.

It was not routine, however, on September 21, 1955, when the Officer in Charge, Marine Inspection, Seattle, signed the eighth issue of a Master's license for Capt. Mary P. Converse.

Captain Mary, who is now 84 years of age, is the first and only woman ever to be issued a Master's license—Master of Ocean Yachts, any ocean, unlimited tonnage.

She obtained her first license in 1899, as a second-class pilot on the New England Coast from Maine to Gay Head. Her experience was gained on her husband's yacht, the *Penelope*—hermaphrodite brig of 975 gross tons, 217 feet overall.

An ardent yachtswoman, she sailed for many years. Then, in 1938, she decided to raise her license. In order to do this, she was told that she must obtain actual ocean navigation experience. So, at 66, undaunted by the

challenge, she sailed as junior navigation officer on the *SS Henry S. Grove*, *SS Lewis Luckenbach*, *SS Dellwood*, and *SS F. J. Luckenbach*. In the course of the next 3 years, she navigated over 33,000 miles.

After completion of a written examination with flying colors, she was issued her original Master's license on September 13, 1940, in the port of Seattle.

During World War II, on the basis of her license, the Navy Department requested that Captain Mary teach celestial navigation to V-7 midshipmen. Her students graduated to serve on every type vessel from tanker to battleship, and on every ocean in the world, and many of them are still sailing.

Captain Mary is now living in Colorado hundreds of miles from salt water, but by proxy she still sails the seven seas.

PROPOSED RULES

(Continued from page 83)

peculiar conditions that exist in certain locales.

PROPOSED RULES

There are 32 concise rules in the proposed draft. These are based on the format of the International Rules. They are not all identical with the International Rules. However, those that differ are similar in scope and context so as to be readily understood and easily complied with. The proposed body of rules must be enacted into law by Congress before the existing maze of rules can be unified and simplified. How long this will take cannot be estimated; however, the Coast Guard foresees the time when a navigator will only be required to know one basic set of rules with a minimum of variations.

The detailed study and the new proposed "Rules of the Road" will be compiled into booklet form in the near future. Copies will be distributed to organizations representing all segments of the maritime public, commercial and pleasure, for perusal and comment.

Obviously, it is difficult to draft a set of rules that will be unanimously endorsed. As was mentioned in the foregoing, many of the present rules had their origin in local ordinances and have particular significance to certain waters and trades. Some will view any proposed revision with skepticism. Accordingly, the Coast Guard seeks to enlist the support and cooperation of all those who sail on United States waters so that the end result will be a concise body of law which will actually further safe navigation.

LESSONS FROM CASUALTIES

THE STEWARD AND THE GHOST

FIGHTS and quarrels aboard merchant ships are not unusual and too often are unpleasant incidents. Consequently, when one occurs having a humorous aspect, it is noteworthy.

Such an incident occurred recently on board a freighter at sea. The incident was reported to the Coast Guard when the voyage ended and the assailant was charged with misconduct and brought before a civilian hearing examiner.

On a long voyage to the Orient, there was a great deal of complaining among the crew that the food was below par. Complaints were made to the steward but the situation did not change. In fact, things, presumably the food, went from bad to worse. Finally, after a meal featuring stew and fruit jello, one of the crew became particularly hungry and angry and decided to take matters into his own hands.

That night, the steward was sitting in his cabin writing—preparing tasty menus for the gourmets among the crew. At the stroke of midnight he heard a rustle behind him and turned to see what it was. He was startled to see a large object covered by a sheet, standing in the room. One small hole was cut in the sheet from which a malevolent eye peered at him.

"Steward, a ghost is here. Your time has come, you belly robber, and I am here to see that justice is done."

With that the "ghost" struck the steward in the eye and commenced to work him over.

The steward grabbed a handful of menus and attempted to defend himself by throwing them at the "ghost"—without success. In the ensuing struggle the steward managed to open the door and shouted, "Help! Help!"

Two crew members heard the call and rushed into the room. Unfortunately for the steward, one of the men was also hungry and joined forces with the "ghost"; while the other man went to the assistance of the steward.

The "ghost" and his hungry assistant got the better of the argument and withdrew with a final admonition, "That is for robbing our bellies." However, as the "ghost" was leaving, his sheet was torn from him and his identity was learned.

The captain was informed, administered first aid to the bloody steward, and then logged the "ghost." (A

blood-stained sheet was found in the "ghost's" fo'c'sle.)

Back in the States the "ghost" denied the charge but the examiner felt that the evidence was conclusive and found him guilty. He issued an order suspending his merchant mariner's document for 6 months and in addition ordered him to henceforth desist from wearing a sheet.

FATAL 2 MINUTES

Fires occurring aboard tank vessels and tank barges often, in retrospect, seem to have been predictable. However, on one T-2 tanker, drydocked in a southern shipyard, a fire occurred which could be said to have been completely unpredictable. While a shipyard worker was working in a gas-free compartment where "hot work" had been going on for several days, and with no apparent fuel in the vicinity, a fire nevertheless flamed up and, within 2 minutes, burned him fatally.

This tanker had been gas-freed and drydocked at an east coast shipyard at the end of July. Early in August, due to a strike in the yard, the tanker sailed to the Gulf where she was again drydocked and preparations made for extensive repairs.

The local certified gas chemist checked all tanks immediately upon arrival and periodically thereafter—certified gas-free! No. 4 center tank, which was the scene of the fire, was last checked by the chemist 3 days before the fire.

HOT WORK

Prior to the drydocking, leaks had been detected in the cargo heating coil piping and several patches had been installed by the ship's force. There was one such patch in No. 4 center tank. It consisted of a sheet of asbestos covered by a solid clamp of $\frac{1}{16}$ -inch steel drawn up by two $\frac{3}{8}$ -inch bolts. One of the principal repair jobs was the renewal of sections of the cargo heating coil piping—including a section in No. 4 center tank. This meant that during the entire shipyard period, there was "hot work"—burning and welding—underway in many of the cargo tanks and on the bottom plating.

On the day of the casualty, two pipefitters descended into No. 4 center tank to survey the work involved to renew a large section of the piping. After taking the necessary measurements, they proceeded to the pipe

shop to fabricate a new section. In the meantime, a workman was detailed to burn off the condemned portion of piping.

His equipment consisted of an oxyacetylene burning torch with approximately 100 feet of hose for both oxygen and acetylene. The hose was led down into the hold from the shipyard manifold mounted on deck. Pressure at the manifold was maintained at about 15 pounds per square inch on the acetylene line and 48 pounds per square inch on the oxygen line. In addition to the burning torch, he had an acetylene welding (sweating) torch and an electric welding cable with electrode.

FIRE

The foreman had been down talking to the burner to determine when help would be needed to remove the old piping. Shortly after the foreman had returned on deck, the two pipefitters, who had just boarded the vessel with a section of new pipe, shouted that there was a fire in No. 4 center tank. They could see it through the expansion trunk manhole. It appeared to start in a small area on the starboard side and then flare rapidly up the starboard side of the tank. The foreman ran toward the manhole. Just as he arrived there was a loud gush as rust, sediment and air blew upward in a blast—followed by a tongue of flame which curled up 2 feet above the trunk. The foreman ran to the wing of the drydock shouting, "Fire! Fire!" and calling for someone on the dock below to pull the fire alarm.

COMMENDABLE ACTION

Among the first arrivals at the scene were the chief mate and an ordinary seaman. Using commendable initiative the seaman located the leads of hose which ran into the tank and shut off the oxygen and acetylene at the manifold. This seemed to diminish the flames, although hot air and smoke continued to pour from the manhole. Within a few minutes the shipyard fire brigade and then the city fire department arrived at the dock. Hose lines were stretched from shipyard hydrants to the hot compartment. Foam from a 40-gallon portable extinguisher was played into the tank and the butterworth machine was introduced into the manhole to supply a rotating spray of water. In another few minutes the fire was extinguished.

Forty-five minutes later, the burned-out tank had cooled suffi-

ciently and two men, wearing oxygen masks, entered the compartment. They found the workman on the starboard side near the heating coil. His body was placed in a basket and hoisted out of the tank. The coroner's report gave the cause of death as severe burns of the entire body.

The oxyacetylene cutting torch was found intact with the acetylene valve approximately one-quarter open and the oxygen valve approximately one-eighth open. Both hoses had ample slack to reach the scene of the work. They had been burned off at the torch and burned partially through in the vicinity of the tank opening.

It was noticed that a hole, such as would result from a cutting torch, had been burned into the heating coil piping at the most logical spot for the burner to have commenced work. The hole was in one of the highest sections of the coil, where it looped up over a bottom longitudinal. However, there was no evidence of any inflammable material at this point after the fire was extinguished.

Investigators also noted an oily residue, with the usual large amount of scale and rust expected in a tanker of this age which had been used in the clean trade and was now used exclusively for heavy oil.

FUEL NOT DETERMINED

Since "hot work" had taken place in the tank on previous days, the assumption could be made that there was not sufficient cargo residue or vapor to ignite—otherwise the fire would have occurred during the preceding "hot work." However, the fact remains, there was something in the tank that was inflammable.

What the fuel was which fed the original small fire could not be exactly determined; however, it must have been either a small quantity of fuel oil or a portion of the cargo residue which had become ignited by the cutting operation.

One theory, developed at some length, was that a pocket of fuel oil had somehow leaked into the heating coil piping either before or after the patch had been applied to the leak—it had collected in a high section of the piping—it had not been flushed out by the steam or during the water pressure test which was applied in order to spot the leaks.

It is conceivable that such a pocket of oil was directly under the point penetrated by the burner's torch. If so, it would have been heated and could have ignited readily when the cutting flame reached it.

RAPID PROPAGATION

Rapid propagation of the fire with the violent exhausting of hot gases and smoke could be explained in two

ways. The original fire could have vaporized and ignited oily residue in the tank, particularly in view of the excessive scale which would be expected to be permeated by oil. Also, the oxyacetylene burning torch, which apparently was dropped in haste, with the valves open, would have supplied a steady stream of both an ideal fuel for fire (acetylene) and an ideal accelerator for fire (oxygen).

Assuming that the torch flame was extinguished by the dropping, and that these two gases flowed from the tip for several moments before they were ignited by the original fire, the resulting flash could easily have produced the minor explosion or "whoosh" observed on deck. Now, if the flames reaching toward the manhole then burned through the oxygen and acetylene hoses in that vicinity, the gases escaping there would have produced intense burning up through the manhole with the effect, noted on deck, of flames rising 2 feet above the expansion trunk.

Unfortunately, the only witness who could testify as to the exact nature of the fire was killed and it will probably never be known exactly how the fire started. Here was a case where reasonable men had every justification for thinking that it was safe to have a section of piping burned out by a yard worker with no undue hazard. Yet, as in so many tank vessel and tank barge fires and explosions, the unforeseen, the unpredictable, happened and a terrible penalty was paid.

What better eulogy could be pre-

sented to the death of this good man than a resolution by all men who work with tank vessels to be a little more careful, to attempt to predict the unpredictable, and to be prepared?

EMERGENCY STEERING GEAR DRILL

Fire drills and lifeboat drills are a regular part of shipboard routine, but there are other emergency evolutions that could well be practiced at a drill. An emergency steering gear drill is an example.

Too often, the emergency steering gear is never activated until an actual emergency arises. Then, when time is of the essence, there is much confusion and delay while unfamiliar personnel trace out lines and valves.

Capt. A. Horka of the SS *American Scout* is one shipmaster who demonstrates his foresight by requiring that such a drill be held periodically.

In addition to the drill, the instructions for changing over to emergency steering are stencilled on the bulkhead in large letters. Should the occasion arise when the engineers and other key personnel are not around, someone not familiar with the gear could activate it by following the instructions. (See Figure 1.)

If other ships decide against holding a drill, the least that should be done is to stencil the instructions on a bulkhead.

Congratulations to Captain Horka on running a well-organized ship.

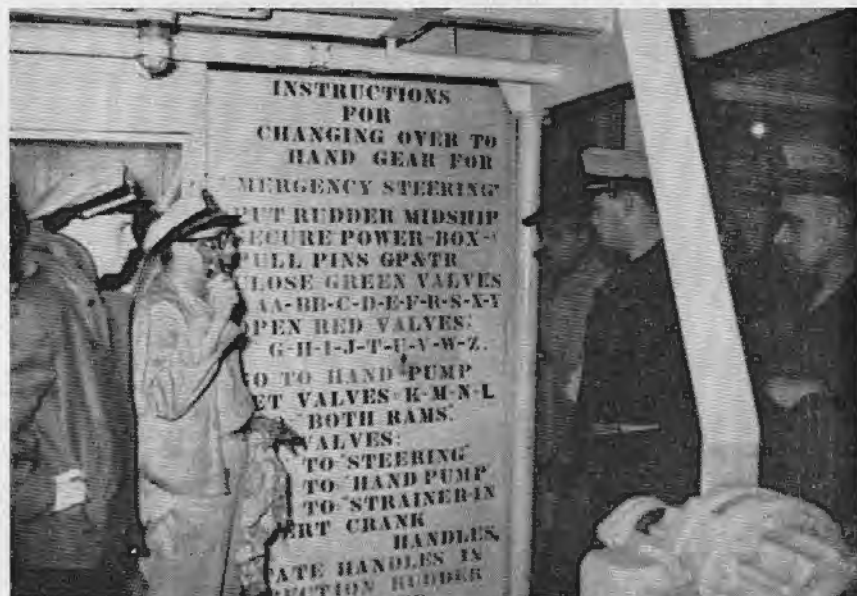


Figure 1. Officers and key personnel of the SS *American Scout* assembled in the steering gear room for instructions on the operation of the emergency steering gear.

ONE HAND FOR YOURSELF

It stands to reason that a seafarer is in a better position to detect an unsafe condition or practice aboard his ship than someone ashore. Accordingly, the Coast Guard has always welcomed recommendations and comments from the men manning the ships.

Recently a letter was received from a Third Assistant Engineer, Mr. Roger C. Holquin, calling attention to a condition he recently noticed on a C-3.

One night, while the ship was in port, an oiler slipped on a ladder leading from the crew's deck to the reefer deck below and fell 15 feet. He had just finished eating a pork chop and his hands were greasy. As he started down the ladder, his foot slipped on the second step and his greasy hands were of little use on the handrails.

Mr. Holquin pointed out that not all of the blame should be placed on the oiler and contends that the hand-rail arrangement on the ladder, as in many other C-3's, could be made safer. The ladder is constructed with one handrail extending the full length of the ladder while the other is several feet shorter (see Figure 1), thus making a descent hazardous because a man must descend at least 3 steps with only 1 handrail.

This situation is now being investigated by the Coast Guard and it is quite possible that a minor alteration is all that will be required.

Mr. Holquin is to be commended for taking the time to make this condition known and also for his excellent drawing of the incident.



Figure 1.

APPENDIX

AMENDMENTS TO REGULATIONS

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

TITLE 46—SHIPPING

Chapter I—Coast Guard, Department of the Treasury

[CGFR 56-11]

PART 146—TRANSPORTATION OR STOWAGE OF EXPLOSIVES OR OTHER DANGEROUS ARTICLES OR SUBSTANCES AND COMBUSTIBLE LIQUIDS ON BOARD VESSELS

HANDLING HEAVY CONTAINERS OF MILITARY EXPLOSIVES EQUIPPED WITH PULLING BAR ASSEMBLIES AND SKIDS

The Chief of Transportation, Department of the Army, in a letter dated February 3, 1956, requested that the current regulations prohibiting the sliding or dragging of heavy containers of military explosives in the holds of vessels be modified when the design of the container includes pulling bar assemblies and skids. At present certain military explosives are contained in skid mounted crates containing pulling bar assemblies, and weigh over three tons, with a length of twenty feet. Such a container is bulky and heavy and difficult to move from the square of the hatch into the wings of the compartment of the vessel. In order to place such heavy containers in position to efficiently utilize the space of the compartment it is necessary to provide some means for moving the heavy containers. It is not possible to use a fork lift on these heavy containers since it is not possible to pass under the coaming around the cargo hatch. The use of rollers is not practicable due to the fact that fork lift recesses are cut into the skids for handling ashore. Thus the present prohibition against sliding or dragging heavy containers of military explosives in the holds of vessels is creating new hazards and unsafe stowage arrangements, as well as preventing the best utilization of compartment hold spaces.

It is hereby found that compliance with the notice of proposed rule mak-

ing, public rule making procedure thereon, and effective date requirements of the Administrative Procedure Act and R. S. 4472, as amended (5 U. S. C. 1003; 46 U. S. C. 170), is contrary to the public interest. Any person who may feel aggrieved by the promulgation of the regulation set forth in this document may appeal to the Commandant (CMC), United States Coast Guard, Washington 25, D. C., in writing before April 24, 1956, and such appeals will be considered by the Merchant Marine Council at a public hearing to be held on April 24, 1956, in Room 4120, Coast Guard Headquarters, Washington, D. C.

By virtue of the authority vested in me as Commandant, United States Coast Guard, by Treasury Department Order No. 120, dated July 31, 1950 (15 F. R. 6521), and Treasury Department Order 167-14, dated November 26, 1954 (19 F. R. 8026), to promulgate regulations in accordance with the statutes cited with the regulations below, the following amendment to the regulations is prescribed and shall become effective on and after the date of publication in the FEDERAL REGISTER:

Section 146.29-39 (a) is amended to read as follows:

§ 146.29-39 *Handling and slinging of explosives.* (a) All military explosives or chemical warfare agents in bulk shall be handled carefully. Packages and other containers shall not be dropped, dragged, tumbled, walked, slid over each other or over the deck or otherwise subjected to shock except that heavy containers of military explosives equipped with pulling bar assemblies and skids may be positioned in the holds of vessels by using the pulling bar assemblies to maneuver the containers for short distances at slow speed. Packages and other containers shall not be rolled unless rolling is specifically permitted by the provisions governing handling as set forth in § 146.29-100.

(R. S. 4405, as amended, 4462, as amended, 4472, as amended; 46 U. S. C. 375, 416, 170. Interprets or applies sec. 3, 68 Stat. 675, 50 U. S. C. 198; E. O. 10402, 17 F. R. 9917, 3 CFR, 1952 Supp.)

Dated: March 22, 1956.

[SEAL] J. A. HIRSHFIELD,
Rear Admiral, U. S. Coast Guard,
Acting Commandant.

[F. R. Doc. 56-2368; Filed, Mar. 28, 1956;
8:53 a.m.]

TITLE 46—SHIPPING

Chapter I—Coast Guard, Department of the Treasury

Subchapter F—Marine Engineering

[CGFR 56-6]

EDITORIAL CHANGES IN SUBCHAPTER

In reviewing the marine engineering regulations prior to printing them as a separate Coast Guard pamphlet, it was noted that certain editorial amendments and corrections are necessary to have these regulations up to date and in agreement with regulations published in the **FEDERAL REGISTER**.

The amendments to 46 CFR 51.01-20 (b), 55.07-15 (e) (2) (i), and 61.35-5 (a) (1) bring up to date references to marine engineering specifications and standards used in the marine industry.

The amendments to 46 CFR 52.22-10, 52.25-20 (c), 52.25-35 (a), 52.25-45 (d) (2), 55.07-15 (f), 55.10-55 (d), 56.05-6 (c), 57.25-45, 58.10-20 (a), and 58.20-1 (i) are editorial changes to clarify described conditions, correct cross references, and eliminate conflicting requirements.

(Federal Register of Friday, February 17, 1956)

EQUIPMENT APPROVED BY THE COMMANDANT

ARTICLES OF SHIPS' STORES AND SUPPLIES

Articles of ships' stores and supplies certificated from 31 January to 29 February 1956, inclusive, for use on board vessels in accordance with the provisions of Part 147 of the regulations governing "Explosives or Other Dangerous Articles on Board Vessels" are as follows:

CERTIFIED

Wash-O-Way Inc., 66-68 Dey St., New York 7, N. Y., Certificate No. 232, dated February 3, 1956, "RUST-O-WAY."

Wash-O-Way Inc., Certificate No. 237, dated February 3, 1956, "WASH-O-WAY #2."

Wash-O-Way Inc., Certificate No. 238, dated February 3, 1956, "WASH-O-WAY #3."

CANCELED

West Disinfecting Co., 42-16 West St., Long Island City 1, N. Y., Certificate No. 133, dated February 29, 1956, "MISTOSECT."

West Disinfecting Co., Certificate No. 136, February 29, 1956, "STEAMSHIP MISTOSECT."

West Disinfecting Co., Certificate No. 137, February 29, 1956, "STEAMSHIP GRAINOSECT."

West Disinfecting Co., Certificate No. 159, dated February 29, 1956, "PYROSTEAM."

West Disinfecting Co., Certificate No. 160, dated February 29, 1956, "STEAMSHIP PYROSTEAM."

West Disinfecting Co., Certificate No. 297, dated February 29, 1956, "FLYBANE (INSECTICIDE)."

Superior Chemical Products, Inc., 47 North Second St., Philadelphia, Pa., Certificate No. 123, dated February 29, 1956, "OMNICIDE."

Virginia Smelting Co., West Norfolk, Va., Certificate No. 200, dated February 29, 1956, "LETHALAIRE R-12."

Hagan Corp., Hagan Bldg., 323 Fourth Ave., Pittsburgh 22, Pa., Certificate No. 202, dated February 29, 1956, "MARAMIN."

Dearborn Chemical Co., Merchandise Mart Plaza, Chicago 54, Ill., Cer-

tificate No. 204, dated February 29, 1956, "DEARSOL 92."

Dearborn Chemical Co., Certificate No. 355, dated February 29, 1956, "DEARSOL."

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 16 January 1956 to 15 February 1956 is as follows:

M. Greenberg's Sons, Brass Foundry and Machine Works, 765 Folsom St., San Francisco 7, Calif. Heat No. 171.

The Lunkenheimer Co., Cincinnati 14, Ohio. Heat Nos. 525, 526 and 527.

AFFIDAVITS

The following affidavits were accepted during the period from 15 January 1956 to 15 March 1956:

Industrial Iron Works, P. O. Box 4625, Portland 2, Oreg., CASTINGS AND FITTINGS.

Ansul Chemical Co., Marinette, Wisc., FITTINGS.

The De Sanno Foundry and Machine Co., 1919 Peralta St., Oakland 7, Calif., VALVES, CASTINGS AND FITTINGS.

The Duo seal Co., Inc., 6657 Paramount Boulevard, Long Beach 5, Calif., FLANGES.

Worcester Valve Co., Inc., 16 Parker Street, Worcester, Mass., VALVES.

Pantex Manufacturing Corp., Hydraulic Division, P. O. Box 660, Pawtucket, R. I., VALVES.

ACCEPTABLE COVERED STEEL ARC WELDING ELECTRODES

The following are additions to the list of electrodes which are acceptable to the United States Coast Guard for use in welded fabrications.

Distributor's and/or manufacturer's	Brand	AWS class	Operating positions and electrode sizes (inch)				
			$\frac{5}{16}$ and below	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$
The Lincoln Electric Co., 22801 St. Clair Ave., Cleveland 17, Ohio	Fleetweld 5-P	E6010	1				
Do	Fleetweld 72 ¹	E6012	1	1	2	2	2
Hobart Brothers Co., P. O. Box WJ-16, Troy, Ohio	Hobart	E6012	1	1	2	2	2
Do	Rocket 14	E6013	1	1	2	2	2

¹ This electrode presently listed in all sizes except $\frac{5}{16}$ inch.



THE MARINERS MIRROVR

Wherin may playnly be seen the courtes, heigh, distances, depths, soundings, floods and ebs, risings of lands, rocks, sands and shoals, with the marks for thier trings of the Harbouroughs, Havens and Ports of the greatest part of Europe: their severall trafficks and comodities: Together wth the Rules and instrumēt of NAVIGATION.

First made & set forth in dutoo 1592 Sea Chartes, by that famous Navigator Sir Francis Drake. And now filled with new additions for the use of Englishmen by ANTHONY ASHLEY.

Herein also may be understood the Complaint lately received by the right Honorable the L. Admirall of England, with her M^{ties} M^{ajesties} leave, since received out by the said Admirall, &c.

S^t. FRANCIS DRAKE.