PROCEEDINGS

OF THE MERCHANT MARINE COUNCIL

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PROCEEDINGS

OF THE

MERCHANT MARINE COUNCIL

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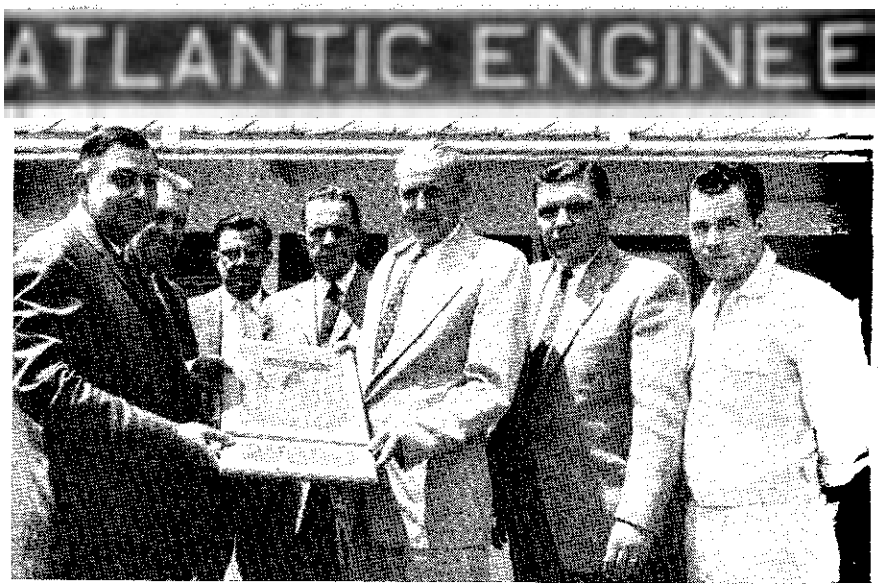
ATLANTIC WINS SAFETY CONTEST



FOR THE SECOND year in a row, the First Place Award for the Tanker Contest of the Marine Section, National Safety Council, was given to the vessels of the Atlantic Refining Co.

Captains E. L. Lindenmuth, senior skipper of the Atlantic Fleet, accepted the award in behalf of all the seagoing members of Atlantic's Marine Division.

Operating Section Superintendent, Captain C. C. Shute, left, and CAPT Lindenmuth, right, hold the awards for 1958 and 1959 in the above picture taken after the formal presentation was made aboard the SS *Atlantic Engineer*. Looking on are Port Captain H. M. Elder, Chief Engineer Augustus Brown, Port Engineer W. A. Walls, Safety Engineer C. A. Culver, and Chief Mate Durward Knight.

ATLANTIC MERCHANT VESSEL REPORT SYSTEM

THE AMVER System has proved to be an effective instrument in the hands of Search and Rescue Coordinators in implementing rescue operations in the North Atlantic Ocean. The value of the system in SAR operations is dependent upon several factors. Some of them are listed below, not in order of importance, but for convenience in discussing certain operational aspects of the system.

ACCURACY IS ESSENTIAL

The information sent to SAR Coordinators from the AMVER Center concerning vessel positions is subject to no more error than any "dead reckoning" plot, and is based on data contained in the AMVER messages sent by merchant vessels. There is a chance of error every time a message is relayed, and to minimize this factor, most of the radio stations which receive AMVER traffic are connected to the Center by direct teletype line.

SPEED OF DISSEMINATION IS VITAL

Information from the AMVER Center must be delivered as quickly as possible. The AMVER Center has a special teletype net connected directly to the SAR Centers at Boston, New York, Norfolk, Miami, and New Orleans. The AMVER Center can put a list of vessels computed to be within a given area on this net in less than 20 (often as little as 5) minutes.

ROUTES TRAVELED

Virtually every conceivable sailing route is represented by the vessels participating in AMVER. The density of traffic in any route varies with a multitude of conditions in the shipping industry and seasons.

NUMBER OF VESSELS PARTICIPATING

The vitality of the system hinges, of course, on this point. If 100 percent of the vessels sailing the North Atlantic Ocean, Caribbean Sea, and Gulf of Mexico participated regularly in the AMVER system, the list of calculated vessel positions available to the SAR Coordinator would be complete and the result would be a long stride toward maximum safety of life and property at sea in the AMVER plot area and minimum time lost due to diversion by merchant vessels. Although the goal of 100 percent participation may never be reached, every name added to the roster of AMVER participating vessels substantially strengthens the system. Here are the figures that show this trend:

	JAN	FEB	MAR	APR	MAY
AMVER participants added to roster.	41	48	62	104	121

Since the number of vessels actively being plotted by the AMVER system is constantly changing, the average size of the plot is difficult to establish. However, for comparison purposes, the plot size at 0000 GMT each day is recorded and averaged at the end of the month. This average went from 444 in May 1959 to 770 in May 1960.

Other comparison figures:

	MAY 1959	MAY 1960
Number of passages plotted during month.	4,200	5,158
Number of individual vessels making these passages.	1,417	2,192

By the end of May 1960, a total of 5,089 different vessels, representing 51 countries, had reported passages in the AMVER system. The countries and number of partipicating vessels from each is listed.

COUNTRY	NUMBER OF VESSELS
Argentine Republic	24
Australia, Commonwealth of	2
Belgium (and possessions)	32
Brazil	27
Britain (and British Colonies)	665
Canada	13
Chile	6
China	12
Colombia, Republic of	18
Costa Rica	4
Cuba	19
Denmark	127
Dominican Republic	3
Ecuador	4
Egypt	5
Finland	21
France (and French Protectorates)	89
Germany	365
Ghana	1
Greece	153
Guatemala	2
Honduras	30
Iceland	10
India	10
Ireland (Eire)	10
Israel, State of	20
Italy	230
Japan	182
Korea	1
Lebanon	1
Liberia	537
Mexico	2
Netherlands (and possessions)	259
Nicaragua	4
Norway	541
Panama, Republic of	167
Pakistan	2
Paraguay	167
Peru	1
Philippines, Republic of the	5
Poland	7
Portugal (and possessions)	8
Russia (USSR)	6
South Africa, Union of	7
Spain	37
Sweden	208
Switzerland	14
Turkey	11
United States of America	976
Venezuela	17
Yugoslavia	28
	5,089

CAUTIONARY NOTES CONCERNING AIDS TO NAVIGATION

PART 2—LIGHTSHIPS, BUOYS, RADIOBEACONS, AND LORAN

LIGHTSHIPS

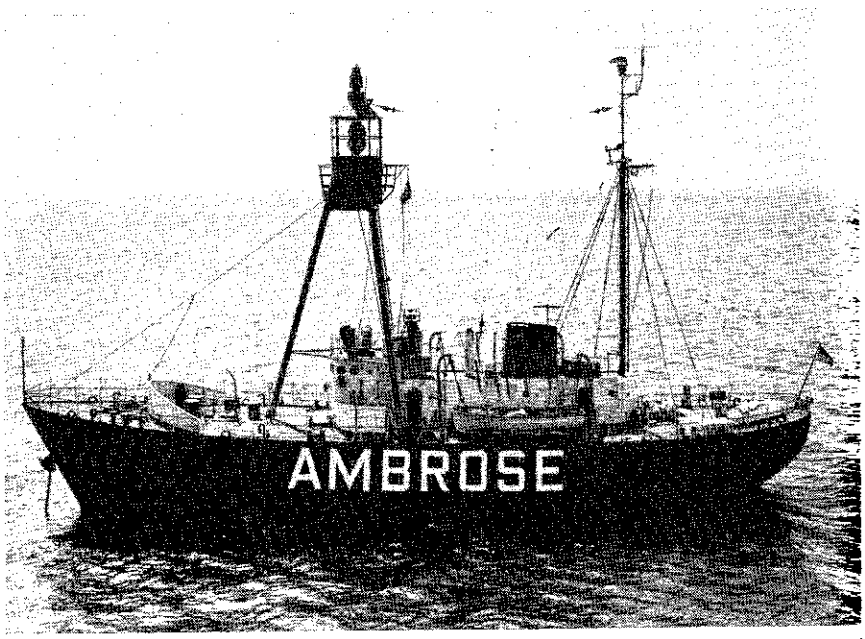
COURSES should invariably be set to pass lightships with sufficient clearance to avoid the possibility of collision from any cause. Errors of observation, current and wind effects, other vessels in the vicinity, and defects in steering gear may be and have been the causes of actual collisions, or imminent danger thereof, needlessly jeopardizing the safety of lightships and their crews, and that of all navigation dependent on these important aids to navigation. Experience shows that lightships cannot be safely used as leading marks to be passed close aboard, but should always be left broad off the course, whenever searoom permits.

When approaching a lightship or a station on a submarine site, on radio bearings, the risk of collision will be avoided by insuring that the radio bearing does not remain constant.

It should be borne in mind that most lightships are anchored to a very long scope of chain and, as a result, the radius of their swinging circle is considerable. The charted position is the location of the anchor. Furthermore, under certain conditions of wind and current, they are subject to suddent and unexpected sheers which are certain to hazard a vessel attempting to pass close aboard.

During extremely heavy weather and due to their exposed locations, lightships may be carried off station without the knowledge and despite the best efforts of their crews. The mariner should therefore not implicitly rely on a lightship maintaining its precisely charted position during and immediately following severe storms. A lightship known to be off station will secure her light, fog signal, and radiobeacon, and fly the International Code signal "PC" signifying "Lightship is not at anchor on her station."

Watch buoys are sometimes moored near lightships to mark the approximate station should the lightship be carried away or temporarily removed and to give the crews an indication of dragging. Since these buoys are always unlighted and, in some cases, moored as much as a mile from the lightship, the danger of a closely passing vessel colliding with them is always present—particularly so during darkness or periods of reduced visibility.



AMBROSE LIGHTSHIP, which marks the entrance to New York Harbor, boasts the most powerful marine navigation light in the United States. It has a maximum intensity of 5,500,000 candlepower.

The light does not always shine so brightly, however, but is maintained at an intensity of 250,000 candlepower when visibility is clear. Voltage controls permit adjustment of intensity in relation to weather and atmospheric conditions. A pendulum device keeps the light beam horizontal when the lightship pitches and rolls in heavy seas. If the earth were flat, the light—at its maximum intensity—would be visible in Philadelphia, 74 statute miles away.

BUOYS

It is imprudent for a navigator to rely on floating aids to navigation to always maintain their charted positions and to constantly and unerringly display their advertised characteristics. The obstacles to perfect performance are of such magnitude that complete reliability is manifestly impossible to achieve. Buoys are liable to be carried away, shifted, capsized, or sunk as the result of storms, ice conditions, collisions, or other accident. Lighted buoys may become extinguished or their lighting apparatus broken or deranged, causing them to show improper light colors or light phase characteristics. Practically all audible signals on buoys are operated by the action of the sea and may consequently be silent during periods of calm weather. They may fail to sound, regardless of wave activity, due to mechanical defects or damage to their sound-producing devices. Even if functioning properly, a sound buoy may not be heard at relatively close range due to the vagaries of sound in atmosphere as explained herein under "Fog Signals." Buoys that have been placed to mark shifting shoals may not always be properly located in relation to the obstructions they are meant to mark. This is particularly true during and immediately following heavy storms when the shoals are liable to shift their positions away from the buoys.

Buoys are moored to scopes of chain of various lengths, in some cases several times the depth of the water in which they are located. Like the lightship, the radius of swing should be taken into account. The position of a buoy, as shown on the chart, actually represents the location of its sinker to which the mooring chain is shackled. The buoy, however, does not maintain position directly over its sinker. Being moored as they are, buoys have a tendency to yaw about under the influence of the wind and current. This action is most unpredictable and a vessel attempting to pass very close aboard always risks collision with a yawing buoy.

The idea seems to have developed among the more uninitiated that a wreck buoy always occupies a position directly over the wreck it is intended to mark. This idea is entirely erroneous. Buoys must be placed in position by a vessel. It is usually physically impossible for these vessels to maneuver directly over a wreck to place the sinker without incurring serious underwater damage to themselves. For this reason, a wreck buoy is usually placed on the seaward or channelward side of a wreck, the proximity thereto being governed by existing conditions. If necessary to reduce the possibility of confusion, more than one buoy is used per wreck, in which case both may not be located on the seaward or channelward side of the wreck but the wreck will lie between them. Obviously, the mariner should not attempt to pass between buoys so placed.

Sunken wrecks are not always static. They are sometimes moved away from their buoys by severe sea conditions or other causes. The previously mentioned precaution regarding shoals shifting away from buoys placed to mark them also applies to sunken wrecks and wreck buoys.

All buoys should therefore be regarded as warnings or guides and not as infallible navigation marks; especially those located in exposed positions. Whenever possible, a ship should be navigated by bearings or angles on fixed objects on shore and by soundings, rather than by reliance on buoys.

RADIOBEACONS

Exact rules cannot be given as to the accuracy to be expected in radio bearings. The accuracy depends to a large extent on the skill of the ship's operator, the condition and type of the ship's equipment, and the accuracy of the ship's direction-finder calibration curve. Skill in the operation of a manual radio direction finder can be obtained only by practice and by following the operating instructions provided with the equipment. As the opeatror obtains bearings by manually revolving the direction finder loop or goniometer until the signal disappears or becomes a minimum, he can estimate by the magnitude of the arc of silence (null) or minimum strength the approximate accuracy of the bearing. Operator error is in addition to those due to other causes.

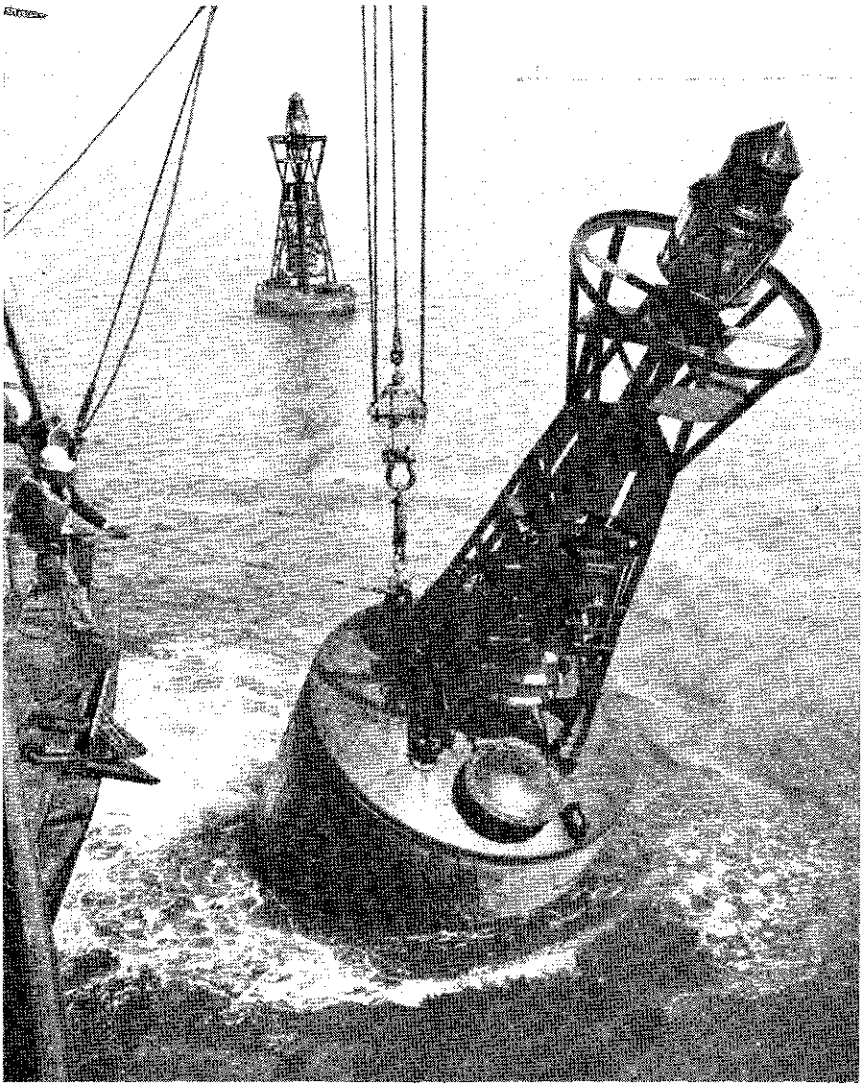
An automatic direction finder does not afford the operator an opportunity to judge the accuracy of the bearing. Automatic direction finders are also subject to additional errors because of the designed receiver bandwidth usually used. The wider bandwidth allows more spurious signals, from both interference and other signals, to enter the receiver. Since the automatic direction finder reacts to a composite of all signals received, errors can result.

Lights, fog signals, buoys, radiobeacons, lightships, and loran assist a master or mate in maintaining safety in navigation. Deficiencies, derangements, and unusual phenomena, however, can occasionally occur in these aids. Certain situations and conditions require particular caution on the part of the mariner. This is the second of two articles prepared by the Staff of the Aids to Navigation Division, Office of Operations, U.S. Coast Guard, to assist the deck officer in his use of these navigational aids.—Ed.

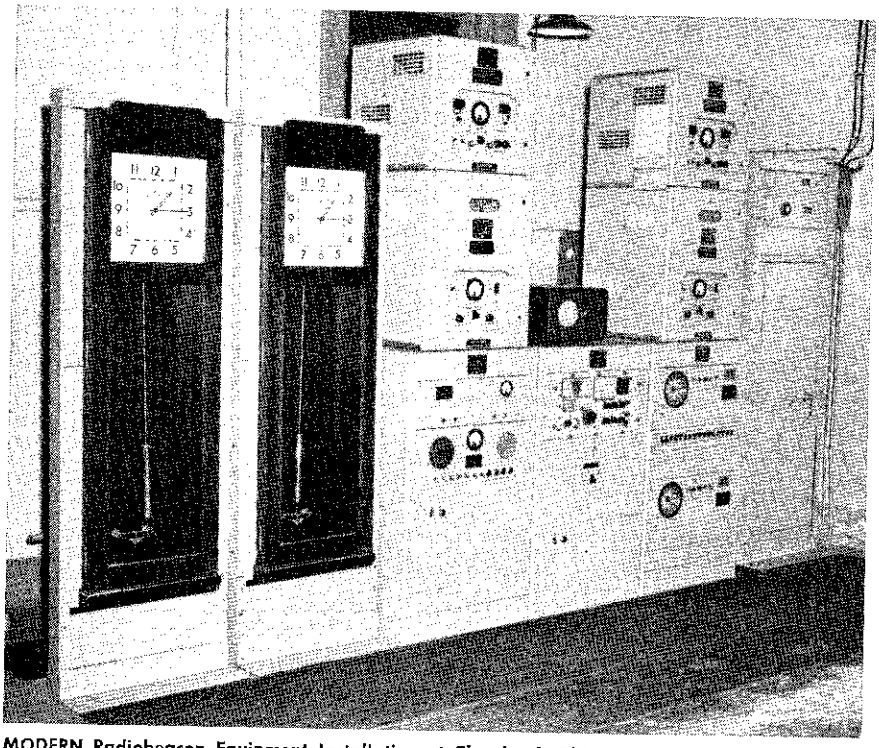
To be able to operate a radio direction finder accurately, the user should be aware of certain disturbing effects that can introduce an error into the observed reading. These can be:

Skywave Signals—Reliable radio direction finding is not possible if the groundwave does not exist, as the skywave is very unstable, i.e., its angle of earth approach, and therefore its point of earth contact (skip distance) varies in accordance with ionospheric conditions. Generally, radiobeacon signals transmitted in the 285 to 325 kc./s. and on 500 kc./s. bands have strong groundwave fields, and under normal conditions little or no disturbing skywave energy exists except at considerable distances from the radiobeacon station or ship.

Local Disturbing Effects—Errone-



SHOWN is an electric-lighted buoy with gong being pulled aboard the USCGC "Jonquil" buoy tender for servicing, in the Hampton Roads area, Virginia.



MODERN Radiobeacon Equipment Installation at Cleveland, Ohio.

ous radio direction finder bearings may result due to the following:

a. Distortion of wave front due to physical dimensions and contour of the vessel's hull.

b. Currents may be induced in the direction finder by structural features of the vessel's superstructure, masts, stays, whistle cords, ladders, life lines, railings, and any metallic objects forming closed loops which have a natural frequency greater than the frequency to which the direction finder is adjusted. To some lesser degree currents may be induced in the direction finder system when any of the closed loops resonate at a harmonic of the frequency to which the direction finder is adjusted. These currents are generally in phase opposition to the currents, and bearings may be effected if corrective measures are not employed.

c. Currents may be induced in the direction finder by masts, grounded stays, or any metallic object or objects which can act as vertical antenna having a natural frequency greater than the radio direction finder frequency being used. Objects resonating at a harmonic frequency of the radio direction finder frequency may to a lesser degree affect the quality of the bearing. Such objects will cause the bearing null to be broad and obscured. Generally, these objects will not produce spurious currents of sufficient magnitude which will affect the apparent bearing of the obscured radio direction finder signal.

Since the conditions enumerated above are local in nature, they must be corrected or compensated for locally. Frequent checks of radio direction finder installations should be made to determine whether corrections or compensations remain the same by check calibrations of the radio direction finder installation. The usual method of calibration is to obtain a series of simultaneous radio and visual bearings on a transmitter. This may be done while a ship swings at anchor, or more quickly by steaming in a circle within sight of a transmitter. It is essential that the radio direction finder be accurately calibrated in order that bearings may be corrected for quadrantal error. It should be recalibrated after any changes have been made to the set or its surroundings, whenever there is reason to believe that the previous calibration has become inaccurate, and also at periodic intervals. The calibration must be made on approximately the same frequencies as will be used to take bearings, because the deviation for several frequencies is not likely to be the same. Many radio direction finders are compensated and no calibration chart or curve is used. Compensation is just as vulnerable as calibration data to changes made in the set or its surroundings. Metal cranes, booms, antenna ground switches of main antennas, etc., should be in their normal positions during calibration, and during subsequent operation and so noted on calibration charts. Any exceptions must be considered as affecting the bearing accuracy.

Night Effect—All radio direction finders are subject to night effect. This effect is apparent to the observer in one or more of the following:

1. Complete disappearance of all minima or directional characteristics.
2. Multiple minima.
3. Crisp but displaced minima.
4. Minima normally placed but obscure.
5. Swinging minima.

Night effect should be expected during the periods of sunrise and sunset. Such bearings should be treated or accepted with doubt as to their accuracy.

Land Effect—A radiowave crossing a coastline at an oblique angle undergoes a change of direction due to difference in conducting and reflecting properties of land and water. It is avoided by not using, or regarding as of doubtful accuracy, bearings of waves which cross a shoreline at an oblique angle. If the transmitter is near the coast, negligible error is introduced because of the short distance the waves travel before undergoing refraction.

Moreover, many observations seem to indicate that such errors are negligible when the observing vessel is well out from the shore. Bearings secured entirely over water areas are to be preferred since any question of so-called land effect in producing error is thus eliminated. Before taking bearings on a commercial station which broadcasts entertainment programs, the mariner should consider that the frequency may differ widely from the frequency for which his direction finder is calibrated. This also applies to aeronautical beacons. The published location of the station may be that of its studio and not that of its transmitting antenna and, if the station is synchronized with other stations, it may be impossible to tell on which station the bearing is taken. As a majority of the standard broadcast stations are inland, their use is not recommended due to possible coastal refraction, as explained in the previous paragraph.

Due to the many factors which enter into the transmission and reception of radio signals, a ship cannot estimate with any degree of accuracy its distance from a radiobeacon by the strength of the signals received.

A vessel steering a course for a radiobeacon should observe the same precautions that apply when steering

for a light or any other mark. If the radiobeacon is aboard a lightship or on a submarine site, particular care should be exercised to avoid the possibility of collision. Sole reliance should never be placed on sighting the lightship or light station or hearing the fog signal in time to avoid collision.

Unless a radio direction finder has a vertical sensing antenna, there is a possible 180° error in the reading. If such an error is discovered, one should take the reciprocal of the uncorrected reading, and apply the correction for the new direction. If there is doubt as to which of the two possible directions is correct, one should wait long enough for the bearing to change appreciably and take another reading. For a vessel or aircraft on a steady course (forward), the true (or relative) bearing on a fixed transmitter should move aft (unless homing head-on or dead astern departure). If the bearing moves forward, it must be a reverse, or reciprocal bearing and should be treated accordingly.

A course should be selected, whenever searoom permits, that will insure passing at a distance, rather than close aboard, and repeated bearings of the radiobeacon should show an increasing change in the same direction.

During periods of radio propagation disturbance, radiobeacon observations may be unreliable.

All mariners using U.S. Coast Guard radiobeacon transmissions for the navigation of their vessel must understand the limitations of the radio direction finder equipment and the possible vagaries of the radiobeacon transmissions due to causes outside the control of the U.S. Coast Guard.

LORAN

Exact data cannot be given as to the accuracy to be expected in loran positions since the accuracy depends to a large extent on the skill of the operator, the condition and type of receiving equipment, and the area of operation. The accuracy of a loran fix is determined by the accuracy of the individual lines of position used to establish the fix and by their angle of intersection. The accuracy of an individual line of position in turn depends upon the following factors:

1. Synchronization of the transmitting stations.
2. Skill in identifying and matching the signals.
3. Skill in reading the indicator.
4. Skill in plotting the line of position.
5. Uncertainty of skywave correction when such waves are used.
6. Position of user relative to the transmitting stations.
7. Accuracy of tables and charts.

Each loran rate is continuously monitored by its master station to determine that proper synchronization is being maintained. When the synchronization error exceeds the advertised tolerance (usually 2 microseconds), the user is advised by the blinking of one or both signals and is thereby warned not to use the rate. This is made known to the user by shifting the signal back and forth about 1,000 microseconds at a 2-second cycle.

Loran position determinations on or near the baseline extensions are subject to geometric errors exceeding 2 nautical miles per microsecond, and therefore should be avoided whenever possible. Loran is a long-range aid to navigation and should not normally be used in pilot waters. The use of skywaves is not recommended within 250 miles of either station, and corrections for these areas are not usually tabulated.

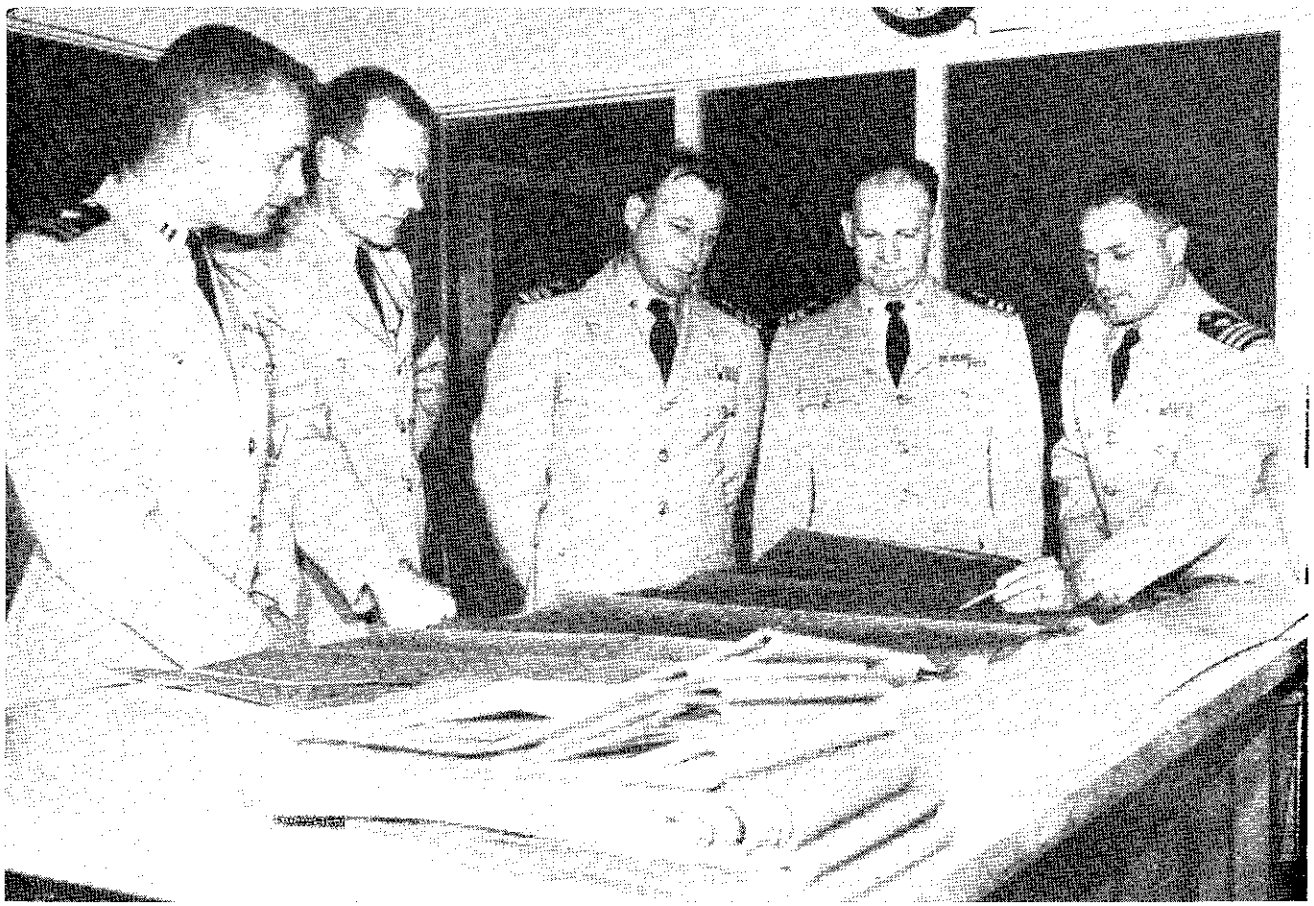
Caution must be used in matching loran signals to insure that the groundwave signal of one station is not unknowingly matched with a skywave signal of the other station of the pair, or a one-hop skywave signal from station with a two-hop skywave signal from the other. Tables and charts are computed for determination of position by matching groundwaves with groundwaves or first hop E skywaves with first hop E skywaves. A skywave correction is provided in the loran tables and on the loran charts to convert first hop E skywave readings to equivalent ground wave readings.

When the transmitters of a loran rate (pair) are far apart, as for Rates 1L4 (Atlantic) or 2H5 and 2H6 (Pacific), or when land weakens one signal, as with Rate 1L3 (Atlantic), there are large areas near the transmitters where normal loran operation is not possible. Absence of one groundwave prevents a groundwave match and the nearer skywave is too uncertain to permit a first hop E skywave match. The corrections in these tables allow a groundwave to first hop E skywave match with somewhat less reliability than a match of two skywaves. The tabulated corrections, with the signs noted, are applied to the observed readings before plotting. Interpolation within the tables will usually be necessary. Groundwave to skywave matching should never be used when both groundwaves are available. Under the best conditions groundwave to skywave matching may be uncertain by an average amount of from 5 to 10 microseconds. As with skywave-to-skywave matching, the error may be very large when within 200 microseconds of the baseline extensions. Conventional skywave corrections are not used when matching ground waves to skywaves.

The techniques for identifying loran signals are explained in H.O. Publication No. 9—The American Practical Navigator, 1958; H.O. Publication No. 216—Air Navigation, 1955; and in various loran-receiving equipment manuals and in the loran tables (H.O. 221). A familarity with these techniques is necessary to avoid trouble and to make the most of the loran system potentialities.

CLEVELAND West Pierhead Light Station, the Control Station and Radiobeacon Transmitting Antenna.

NEW TECHNICAL OFFICE



OFFICERS of the Twelfth Coast Guard District Merchant Marine Technical Section confer over hull plans of a merchant vessel submitted to the Section for review. At right is Commander V. J. Cass, USCG, Chief of the Section. Others (left to right) are LT James M. Fournier, USCG, Asst. Chief Hull Sub Section; LCDR Charles F. Baker, USCG, Chief Machinery Sub Section; CDR W. E. Dennis, Chief Hull Sub Section, and CDR L. R. LaValley, Chief Electrical Sub Section.

A FIELD Merchant Marine Technical Section, which should accelerate the plan approval procedure for all new marine construction, conversion, and alteration of vessels subject to inspection within the Eleventh, Twelfth, Thirteenth, Fourteenth, and Seventeenth Coast Guard Districts, was recently activated in San Francisco under the Commander, Twelfth Coast Guard District.

In the past, because of the distance between Headquarters and the marine industry in the West, it has been difficult for the owners of small vessels and representatives of smaller shipyards to discuss their problems with the Technical Division. The establishment of the new facility will speed up and improve plan approval procedure and facilitate discussion between industry and the Coast Guard with regard to problems of Merchant Marine safety and the application of vessel regulations.

All required plan submittals for new marine construction, conversion, or alteration for vessels subject to inspection and under the cognizance of the Eleventh, Twelfth, Thirteenth, Fourteenth, and Seventeenth Coast Guard Districts should be forwarded to:

Commander, Twelfth Coast Guard District (mmt)
903 U.S. Appraisers Bldg.
630 Sansome St.
San Francisco, Calif.

Head of this new unit is Commander Vincent J. Cass, USCG, a graduate of the Coast Guard Academy, who saw service during World War II in the Atlantic, Pacific, and Mediterranean areas. He served in the Hull Section of the Marine Inspection Office in San Francisco (1945–46) and in Seattle (1947–48). After service aboard the Cutter *Klamath*, he served in the Hull Section (Naval Architecture) of the Merchant Marine Technical Division at Coast Guard Headquarters. In 1956, he was assigned to the Marine Inspection Office in Baltimore, Md., where he served as Senior Investigating Office until his present assignment as Chief of the newly established Technical Section.

In addition to Commander Cass the office includes CDR W. E. Dennis, Chief Hull Subsection; CDR L. R. LaValley, Chief Electrical Subsection; and LCDR Charles F. Baker, Chief Machinery Subsection.

OIL POLLUTION PANEL
MERCHANT MARINE COUNCIL
UNITED STATES COAST GUARD
WASHINGTON 25, D. C.

PANEL SECRETARY:

GEORGE C. CHARLTON
SECRETARY
AMERICAN MERCHANT
MARINE INSTITUTE, INC
11 BROADWAY
NEW YORK 4, N. Y

To: Masters and Crews of U. S. Merchant Vessels

Gentlemen:

Due to numerous recent developments I feel that it is time to bring you up to date on the status of U. S. accession to the 1954 International Convention on Pollution of the Seas by Oil. This Convention has been in effect, as regards the nations signatory to it, since July, 1958. The terms of the Convention provide for, among other matters, establishment of the 50 mile prohibited discharge zone, additional zones in some areas, the keeping of an oil and slop record book and procedures for enforcement.

At the request of the Government, the Pollution Panel reviewed and commented upon the Convention and stated that, with certain reservations, it would not oppose accession. These reservations were incorporated by the State Department, along with several of its own, and sent to the President. In mid-February, the Convention was sent to the appropriate Senate Committee for consideration and a hearing was held on May 17th. I appeared at the hearing in behalf of the Panel, stating that we did not feel that the Convention would cure the oil pollution problem but that it might be a step in the right direction, particularly since we were not in a position to improve the terms of the Convention as long as we were not a party to it. We also indicated that there would be no lessening of industry abatement activities because we had signed the Convention.

On June 2nd, the Senate Committee issued a report favoring accession to the Convention and legislation to implement the Convention in this country has been drafted. The Panel reviewed this legislation at a meeting on June 15th and has forwarded its comments to the Commandant of the Coast Guard. In a relatively short time, this implementing legislation will no doubt become law, and we will give you the complete details.

In the Senate report on the Convention, it was stated: "The committee takes this opportunity to commend the industry for the effectiveness of its voluntary measures for oil pollution control." This is the most encouraging tribute that has been received by the industry and it was made possible only by your fine cooperation and understanding of the many problems involved.

Please accept my deepest thanks on behalf of the Panel and the Government as well.

Yours very truly,

R. E. Mackey

R. E. Mackey, Chairman

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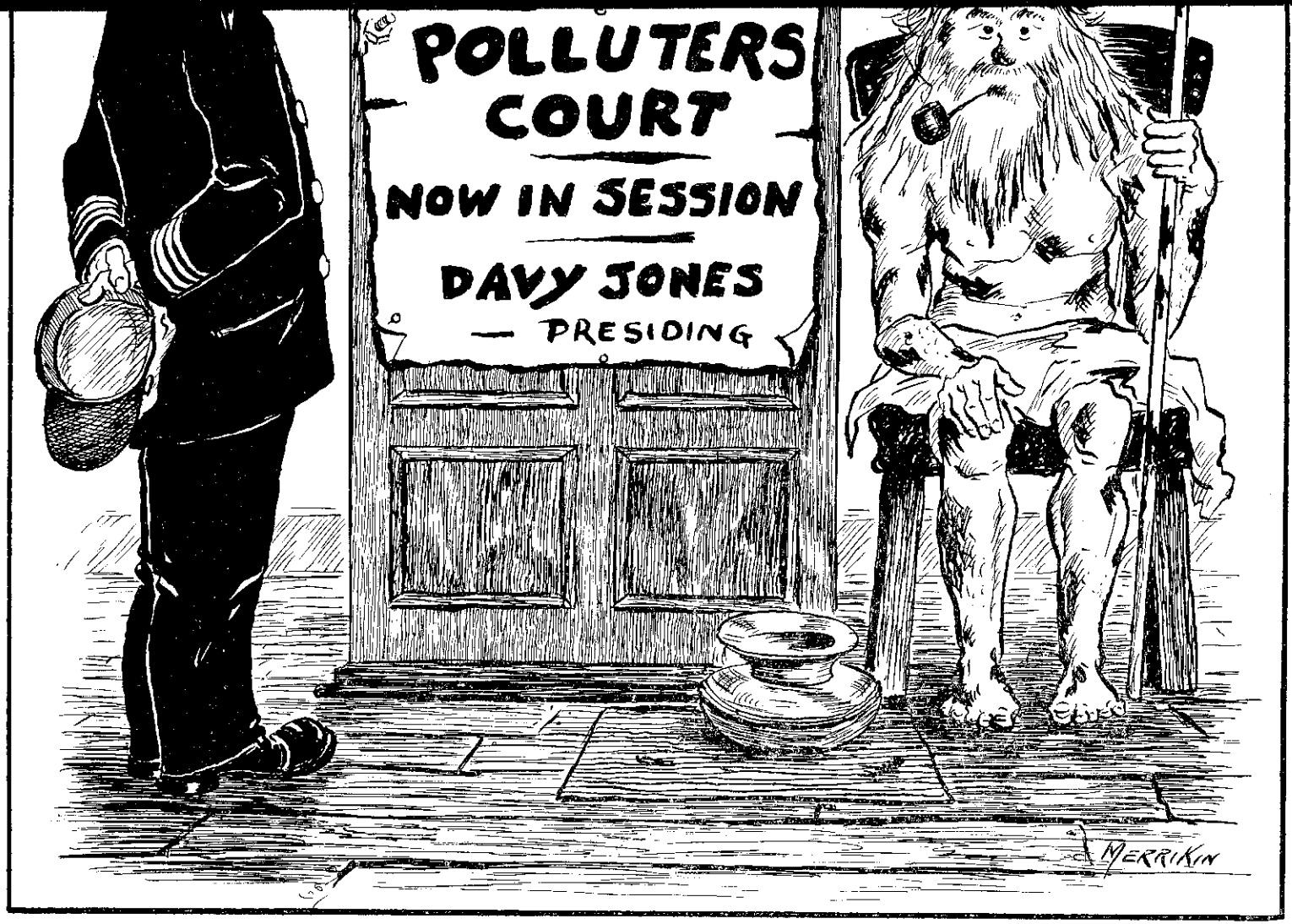
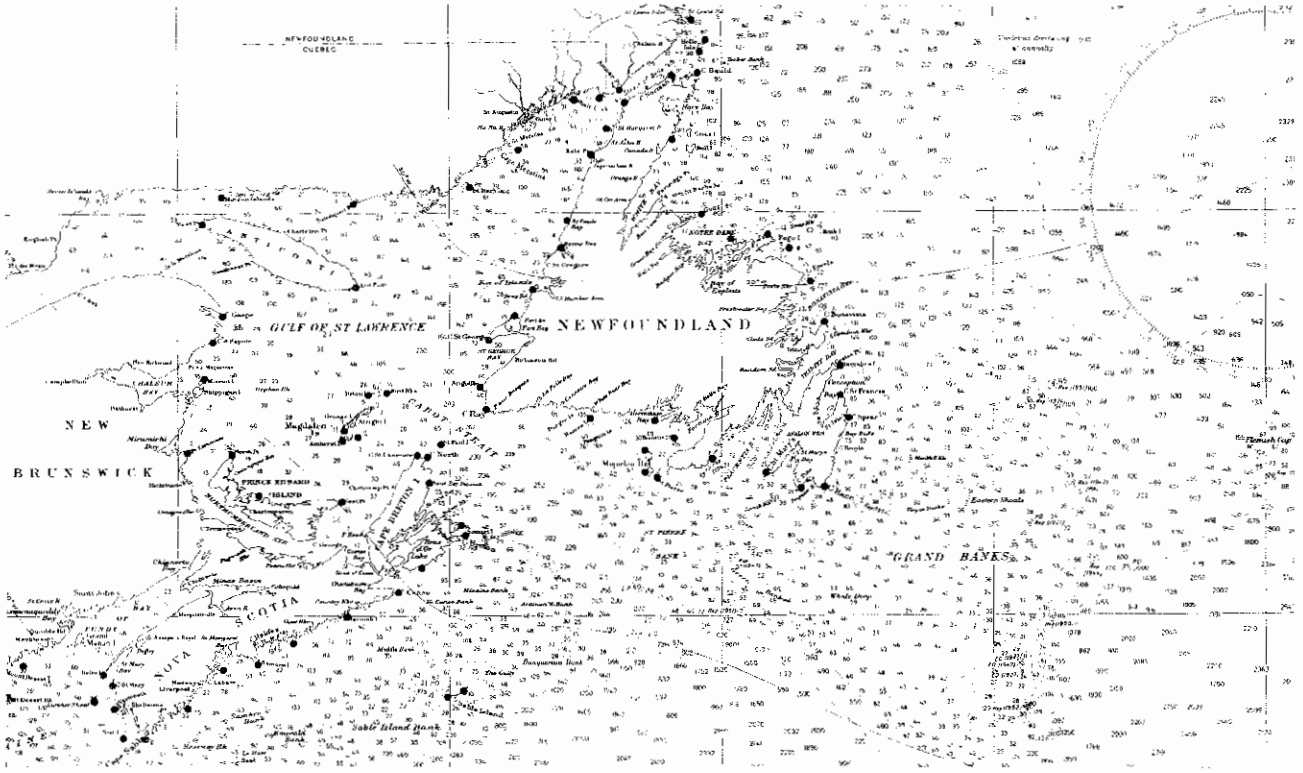
"The ole boy sez ya bin messing up his waters !! .... Whatcha gotta say ?"


POLLUTERS
COURT
NOW IN SESSION
DAVY JONES
— PRESIDING
MERRIKIN

OIL POLLUTION OFF NEWFOUNDLAND



EARLY THIS YEAR, the attention of the American Consul at St. John's Newfoundland, was focused on the serious oil pollution problem existing on the coasts of that province. This matter was brought to the attention of the U.S. Department of State, which subsequently apprised the U.S. Coast Guard Oil Pollution Panel of the situation. As a result, the Panel chairman, Captain R. E. Mackey, addressed a letter to United States owners of all merchant vessels, explaining the existing conditions and asking that ships' officers and crews be urged to exercise appropriate oil pollution precautions. Additionally, to get the story to men on the ships, Captain Mackey's letter was reproduced in the June issue of the U.S. Coast Guard's Proceeding of the Merchant Marine Council. The following is intended to expand upon the situation and to set forth some of the factors involved.

Oil on the water's surface can be a serious hazard to the life of waterfowl. There are several ways in which birds become entrapped by oil. Biologists state that birds are attracted by oil slicks, in the mistaken assumption that the smooth patch on the surface of the water indicates a school of small fish upon which they can feed. Also, birds which are sleeping on the water may be surrounded by a slick which is being carried by winds or surface currents.

Once birds have been contaminated by oil, they are incapable of flying and, even worse, cannot dive for food. A small amount of oil on a bird's wings is all that is required to incapacitate it in this manner. Additionally, a small spot of oil on the underside of the body destroys the insulating quality of the feathers, thus exposing the vital organs to cold water and thereby causing death by exposure. These facts are borne out by a study of birds which have fallen victim to oil slicks.

Newfoundland became seriously concerned with oil pollution as early as 1935, and in the last few years the condition has become worse. The bad situation and the great loss of birds seems to be accounted for by the following factors: (a) the set of the Labrador current, (b) the prevailing onshore winds, (c) the proximity of transatlantic shipping lanes, and (d) the fact that from 4 to 10 million birds winter on the Grand Banks off the southeast coast of Newfoundland. It had previously been calculated that about 1,000 birds died as a result of oil pollution daily on just one section of the coastline. This year, however, losses during the first 4 months have been placed at hundreds of thousands.

In many areas of the world, ducks and similar waterfowl are considered as game birds. Such is not the case in Newfoundland and Labrador, however, where these species constitute an important source of food. Thus about a half million murres (one of the species suffering the greatest loss) are killed annually for food by the Indians and Eskimos. This then causes oil pollution to be of particular concern not only to Newfoundland residents but to men on ships plying the transatlantic lanes as well.

There is good evidence that the birds in the Newfoundland area are being killed by oil discharged as much as 300 miles offshore. A lesson can, therefore, be learned from this story. Oil, oily water, and sludge persist on the surface of the water for sometime after discharge and thereby constitute a menace to safety of life and property, birdlife, and recreational facilities. It is essential then that such influencing factors as prevailing winds and currents and the proximity of land be considered when contemplating the discharge of oil and ballast from the bilges and tanks of vessels at sea.

As Captain Mackey said in his letter, mentioned earlier, the efforts of vessel personnel toward this end will be greatly appreciated by not only the Oil Pollution Panel, but by the U.S. Government as well.

UNITED STATES COAST GUARD

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

MVI
19 April 1960

Commandant's Action

on

Marine Board of Investigation; explosion and fire on board *Offshore Platform South Timbalier Block 134–D1*, Gulf of Mexico, 26 July 1959, with loss of life

The record of the Marine Board of Investigation convened to investigate subject casualty, together with its findings of fact, conclusions, and recommendations, has been reviewed.

At about 2330, 26 July 1959, an explosion and fire occurred on the *Offshore Drilling Platform South Timbalier Block 134–D1*, Gulf of Mexico, when the well began to blow during the drilling operations. Of the 12 men on the platform, 1 drowned and 2 were seriously injured when they jumped from the upper level of the burning platform to the water. Five men suffered varying degrees of burns and four were unharmed. Damage to the rig was estimated to be $300,000.

The *Offshore Drilling Platform 134–D1*, owned by the Gulf Oil Corp., is a rectangular structure approximately 120 feet by 50 feet, having three decks. Atop the platform was *Salt Dome Oil Rig No. 10*, a two-deck structure consisting of the drilling derrick and living quarters. The living quarters were on the uppermost deck approximately 80 feet above the water surface. The *Rig No. 10* had previously been inspected by the Coast Guard in another location as an unmanned platform because at that time the crew was accommodated on an attending vessel. At the time of this casualty, 5 of the 12-man crew were being quartered and subsisted on the rig. *Rig No. 10* was owned by the Salt Dome Production Co., who was under contract to the Gulf Oil Co. to drill the well.

At about 2330 the crew was drilling at a depth of 4,880 feet when drilling mud began spilling over the top of the mud pit, indicating that the well was about to blow. Attempts to contain the pressure were unsuccessful and within a matter of seconds an explosion occurred and the escaping gas torched off. As the flames enveloped the top deck of the platform and the lower deck of the *Rig No. 10*, the crew began to abandon the structure. Of the men actively engaged in the drilling operation at the time, four were able to reach the ladders leading to the boat landing platform and three slid down a 4-inch rubber sanitary discharge hose to the water when the escape route was cut off by the flame. There were five men in their quarters at the time of the explosion whose escape was blocked when the fire engulfed the single ladder leading from the quarters level to the deck below. All five donned lifejackets which were stowed in their quarters and one man threw two or three additional jackets into the water for use by the others. Three men then jumped from the quarters level and the other two slid down the sanitary discharge hose, although one fell off partway down. The three who jumped suffered the most serious injuries. The 67-year-old cook apparently landed flat, and as a result was rendered unconscious and drowned despite his lifejacket. The other two entered the water in more favorable attitudes. The injuries they sustained were primarily to the chest and back.

A radio report of the fire was intercepted by the MV *Rig Service* which was approximately 9 miles away on rig standby for another company. Without awaiting orders the master immediately directed his vessel to the scene and recovered seven men from the water and removed three men from the landing platform of the burning structure. The 11th survivor was picked up from the water by a Coast Guard vessel.

REMARKS

The Board found that the explosion and fire resulted from the ignition of combustible gases escaping under pressure of the blowout. Although the source of ignition could not be determined, sand abrasions in the bleeder line, hot exhaust lines from the diesel motors, or an arc from the operating generators were suggested possibilities. In any event the cause is considered to have occurred solely within the scope of oil well drilling operations.

The Board's conclusion that the artificial island composed of the *Offshore Platform South Timbalier Block 134–D1* and the *Salt Dome Oil Rig No. 10* constituted a manned platform by virtue of the fact that five crewmembers were continuously living and being accommodated on board is concurred in. In accordance with the Board's recommendation, the Commander, 8th Coast Guard District, is hereby directed to refer the record in this case to the U.S. attorney having jurisdiction for possible prosecution for the violations of the equipment requirements for manned platforms uncovered by this investigation.

The Board's recommendation for amendment to the regulations concerning the definition of artificial islands (46 CFR 140.10–5); means of escape (46 CFR 143.05–1); and the recommended promulgation of a new regulation to provide for additional emergency means of escape for artificial islands will be referred to the Merchant Marine Council for study.

The recommendation that the Coast Guard seek legislation to authorize administrative penalties for violations of the Outer Continental Shelf Lands Act (43 U.S.C. 1333), and regulations issued thereunder, will be taken under consideration as a possible means of facilitating enforcement.

Appropriate recognition of the commendable action on the part of Junius J. LeBlanc, master of the tug MV *Rig Service*, for his part in recovering the survivors will be given.

As further recommended by the Board, a copy of the record in this case will be forwarded to the Department of the Interior for information.

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

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

MARITIME SIDELIGHTS

LYKES LINES SAFETY PROGRAM

Sixteen vessels or 30 percent of the entire Lykes Lines fleet completed the year 1959 with no lost-time injuries. This compares with two such ships in 1957 and nine in 1958.

The SS *Sylvia Lykes*, a C–2, ranked 48th in fleet safety performance in 1958. It turned in the most outstanding record in 1959 to capture the number one spot in fleet performance.

An analysis of the entire Lykes fleet performance for 1959 indicated several outstanding examples of the tremendous results achieved when a ship's crew performs as a team in accident prevention. The SS *Genevieve Lykes* improved her record from 52d rank in 1958 to 12th in 1959. The SS *Reuben Tipton* jumped from 49th place to 11th place, the SS *Virginia Lykes* from 47th to 5th place, the SS *Norman Lykes* from 42d to 8th, the SS *Marion Lykes* from 39th to 9th place, the SS *Zoella Lykes* from 36th to 16th place, the SS *James Lykes* from 32d to 15th, the SS *Helen Lykes* from 31st to 13th, the SS *Aimee Lykes* from 28th to 2d and the SS *Doctor Lykes* from 25th to 4th.

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The traditional, centuries-old European system of hauling long barges by tug is giving way to the more economical system of pushing the cargo carriers along the Rhine River according to John P. Callahan in a signed article in the *New York Times*.

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The SS *Marine Rice Queen*, a former Liberty ship, has been converted into a selfloading rice bulk carrier and has completed her first commercial voyage between California and Puerto Rico. The vessel, operated by a subsidiary of Marine Transport Lines, is this country's only bulk rice carrier.

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American President Lines has determined upon a gradual shift into container operations which it plans to correlate with its traditional general cargo handling methods according to an article in the *Journal of Commerce*.

PUBLIC HEALTH SERVICE AWARD

A SPECIAL CITATION of the Public Health Service for excellence in vessel sanitation was recently presented to the United States Lines at a ceremony in the Company's home office.

The award was presented to Captain Jones F. Devlin, Vice President for Operations of the Company, by Sylvan C. Martin, Regional Engineer of the Service. It signified that each of the 55 vessels operated by the United States Lines had achieved a rating of 95 percent or better in official Public Health Service inspections involving 166 separate items of sanitary construction and maintenance. The citation was the fourth received by the Company since 1957, and covers the passenger liners *United States* and *America*, as well as 53 cargo ships.

Pictured in the accompanying photograph are left to right: C. D. Gibbons, Executive Vice President of the United States Lines, Mr. Martin, and Captain Devlin.

The SS *Mormaccape*, the third vessel in an extensive ship replacement program of Moore-McCormack Lines, was launched in June at the San Pedro yard of the Todd Shipyards Corp. This is the first major ship to be constructed in the Los Angeles area since World War II.

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The New York University Maritime College student body of 400 cadets is presently on their annual three-month training cruise in the Atlantic and Mediterranean aboard their new training ship *Empire State IV*, the former Navy transport *Henry Gibbins*.

The Mississippi Shipping Company has approved an order with the Propeller Department of Avondale Marine Ways, Inc. for three variable pitch, built-up type, stainless steel propellers to be installed on Delta Lines SS *Del Rio*, SS *Del Sol* and SS *Del Oro*.

⚓ ⚓ ⚓

A Norwegian crew achieved a Viking victory in the Maritime Day lifeboat race. The eight-man team from the steamship *Stavangerfjord* permanently captured the Millard G. Gamble Trophy after rowing a 3,500 lb. lifeboat over a mile-long course in the Narrows at New York in 12 minutes 33 seconds.

nautical queries

Q. How is the true bearing determined between any two points on a large-scale polyconic chart?

A. The true bearing between any two points on a large-scale polyconic chart may be determined by connecting the two points with a straight line and measuring the angle of its intersection with a meridian line at or near the middle of the course.

Q. Describe the polyconic projection.

A. The polyconic system of chart projection is based upon the development of the earth's surface on a series of cones, a different one for each parallel of latitude, each one having the parallel for its base, and its vortex in the point where a tangent to the earth at that latitude intersects the earth's axis produced. The degrees of latitude and longitude on this chart are projected in their true length and the general distortion of the figure is less than in any other method of projection, the relative magnitude being closely preserved.

A straight line on the polyconic chart represents a near approach to a great circle, making a slightly different angle with each successive meridian as the meridians converge toward the pole and are theoretically curved lines; but it is only on charts of large extent that this curvature is apparent. The parallels are also curved, this fact being apparent to the eye upon all excepting the largest scale charts.

Q. (a) How is distance measured on a polyconic chart?

(b) The distance between two points on a polyconic chart of the Great Lakes is 100 *statute miles*. How long would it take a vessel making 15 *knots* to traverse the distance?

A. (a) Distance is measured on a polyconic chart by using the scale provided on the chart.

(b) $\frac{100\times5280}{15\times6080}$=5.789 hours or *5 hours 47 minutes.*

Q. (a) Do the meridians of longitude appear as vertical straight lines on a polyconic chart? Explain your answer.

(b) The distance between two points on a polyconic chart of the Great Lakes is 150 *statute miles*. If a vessel makes a speed of 10 *knots*, how long will it take her to traverse this distance?

A. (a) The meridians of longitude converge toward the pole on a polyconic chart. Only the central meridian is vertical.

(b) $\frac{150\times5280}{10\times6080}$=13.026 hours or *13 hours 1.5 minutes.*

Q. Are parallels of latitude straight lines on a polyconic chart? Explain your answer.

A. Parallels of latitude appear as curved lines on the polyconic projection.

Parallels of latitude are nonconcentric circles, but having their centers along the central meridians, usually beyond the limit of the map.

Q. (a) How does a rhumb line appear on a polyconic chart?

(b) After laying down a straight line between two points on a polyconic chart, how would you determine the course?

A. (a) A rhumb line appears as a curved line.

(b) After laying down a straight line between two points on a polyconic chart, the course is determined by measuring the intersection of the line with the meridian midway between the two points.

Q. How does a great circle course appear on a polyconic chart?

A. A great circle course appears as a curve on a polyconic chart.

Q. What regions of the earth may not be shown by the ordinary Mercator chart projection?

A. The polar regions and extreme north and south latitudes adjacent thereto cannot be charted on the ordinary Mercator projection.

Q. If the coordinates on a great circle course are transferred from a gnomonic chart to a Mercator chart and the lines connecting them drawn, what is the appearance of the great circle course on the Mercator chart?

A. If the coordinates on a great circle on a gnomonic chart are transferred to a Mercator chart and the lines connecting them drawn, the result will be a series of chords approximating a great circle on the Mercator chart.

Q. If you wished to measure the distance between point A at latitude 30° and point B at latitude 40° on a Mercator chart with the dividers set to measure 30′ at each step, at what two points on the latitude scale would you set each leg of the dividers in order to obtain the most accurate measurements?

A. 34°45′ and 35°15′.

SAFETY PICTURES WANTED

The Mechanical Safeguarding Committee of the National Safety Council's Industrial Conference is planning the publication of an illustrated book on custom or homemade mechanical safeguards which illustrate the best methods of guarding all types of industrial equipment.

The committee has requested photographs, negatives, and/or line drawings (not blueprints) of guards used in all industries so that they may make their publication as complete as possible.

If you have any pictures or ideas that may be of assistance, you are requested to send one or more large, clear, glossy print photographs, negatives and/or sharp lined drawings of custom or homemade mechanical guards in your organization to Mr. T. A. Kraklow, National Safety Council, 425 North Michigan Ave., Chicago 11, Ill.

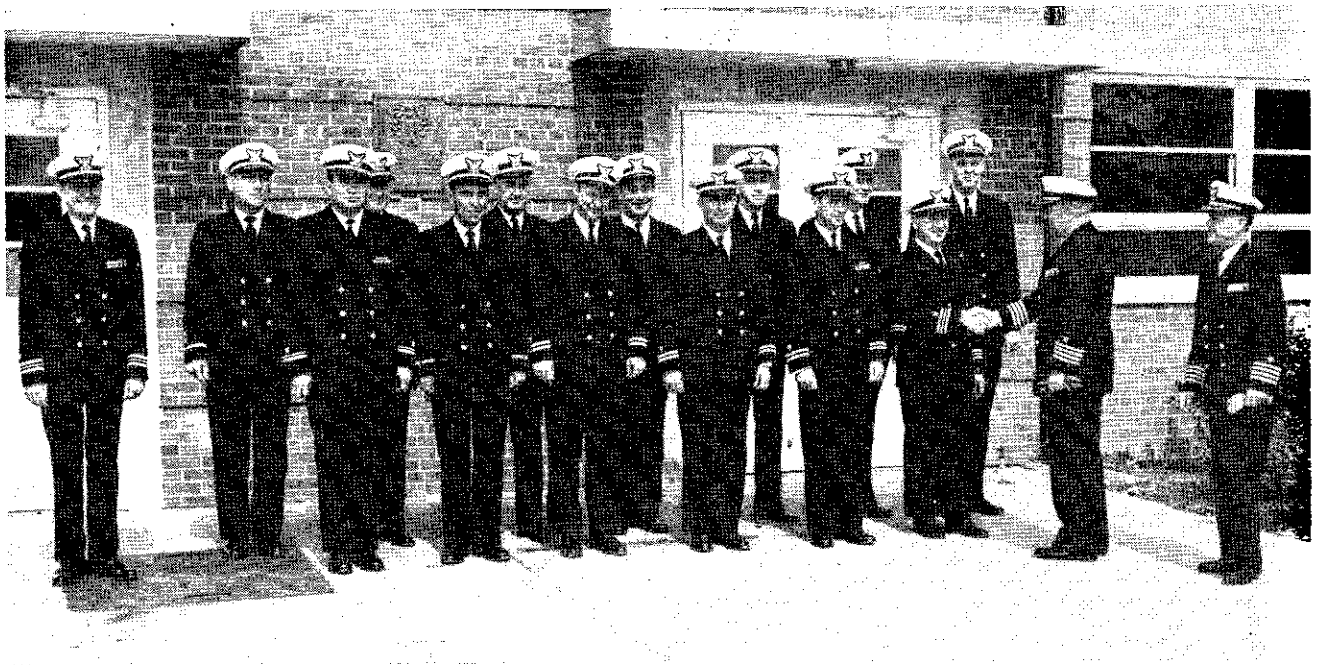
It would be helpful if the equipment on which the guards are mounted be identified and the description given of the particular type of hazard involved. If a guard is made of special materials because of its exposure to high heat, corrosive atmospheres, etc., please include specifications of the materials of the guard.

RADIOLOGICAL DEFENSE

Radiological Defense in Civilian Manned Ships, **a 26-minute film, has been prepared by the U.S. Navy's Military Sea Transportation Service. The film describes the three forms of nuclear explosions and their effects, individual and ship protective measures against these effects, the organization of civilian-manned ships for radiological defense, securing ship, rigging and use of washdown countermeasures, and radiological monitoring and decontamination procedures.**

Although prepared for use in the MARAD-MSTS Damage Control School, the film will be available for training purposes to commercial operators on a short time basis. The film is available on request from the Training Division of the Military Sea Transportation Service in New York, San Francisco, and New Orleans.

13 LICENSED OFFICERS GRADUATE



CAPTAIN John R. Kurcheski, USCG, Marine Inspection Office, Norfolk, Va., congratulates the newly commissioned officers upon their graduation from U.S. Coast Guard Indoctrination School at Yorktown, Va., as CAPT Louis M. Thayer, Jr., USCG, Officer in Charge of the Reserve Training Center (far right), looks on. Pictured from left to right are: LCDR Eugene Carlson, Jr., Senior Instructor; CHBOSN Walsh, LTJG Wicks, LTJG Rowe, CHMACH Sykes, LT Summey, LT Simpson, CHMACH Cruz, LT Atkinson, LT Sullivan, LT Finnie, LT Hamilton, LCDR Durgin, and LTJG Eckman.

THIRTEEN licensed officers recently graduated from the Merchant Marine Indoctrination School at the U.S.C.G. Reserve Training Center, Yorktown, Va. They are presently on duty in various Coast Guard units and will enter marine inspection offices throughout the country upon completion of their present assignments.

The former merchant marine officers entered the Coast Guard under the provisions of Public Law 219 (14 U.S.C. 255(a)(5)) of the 80th Congress, which was inaugurated in 1948 with the publication of the Commandant's policy for the commissioning of qualified merchant marine officers in the regular Coast Guard. The recent graduates listed below have been tendered commissions; one as Lieutenant Commander, seven as Lieutenant, two as Lieutenant (jg) and three as Commissioned Warrant Officers. These officers will serve 12 months sea duty aboard a major cutter and 3 months merchant marine indoctrination before their assignment to merchant marine safety duty.

LT. JAMES A. ATKINSON—Licensed Master. He graduated from the U.S. Merchant Marine Academy in 1945 and served as mate and master for Pure Oil Co. Prior to his entry into the C.G., he was a docking pilot at Savannah, Ga. He is presently assigned to the USCGC *Absecon*.

CHMACH HUGO A. CRUZ—Licensed Chief Engineer. He has served as Chief Engineer aboard various vessels of the merchant marine, as Engineering Officer aboard naval vessels, and as a boiler and machinery inspector for the Zurich-American Insurance Company.

LCDR ALVIN T. DURGIN, JR.—Licensed Chief Engineer. He served as marine engineer with Delta Line and as Marine Supt. for the Algiers Public Service Co. of New Orleans. He is presently serving aboard the USCGC *Ingham*.

LTJG JOHN B. EKMAN, JR.—Licensed deck officer. He graduated from the U.S. Merchant Marine Academy in 1949, served in the U.S. Navy as navigator aboard the USS *Diamond Head* and as deck officer for Seas Shipping Co., Inc. (Robin Line). He is presently serving aboard the USCGC *Halfmoon*.

LT. ROBERT N. FINNIE, JR.—Licensed Deck officer. He graduated from the U.S. Merchant Marine Academy in 1942 and holds a LL.B. degree from Lincoln University Law School of San Francisco. After service aboard vessels of the American President Lines, he served as assistant to the President of the Pacific American Steamship Association.

LT. JOSEPH L. E. HAMILTON—Licensed Master. He graduated from the Maine Maritime Academy in 1947 and served as deck officer and master for Farrell Lines. He is presently aboard the USCGC *Rockaway*.

LTJG HARRY A. ROWE—Licensed Master. He has been on duty in the U.S. Naval Reserve and has served as deck officer with Isthmian Lines. He is presently serving aboard the USCGC *Cherokee*.

LT. WILLIAM H. SIMPSON—Licensed deck officer. A graduate of the Pennsylvania schoolship "Annapolis", he has served in many capacities aboard vessels of the Keystone Shipping Company and holds a B.A. degree from Oklahoma Baptist University (1953). He is presently serving aboard the USCGC *Mendota*.

LT. EDWARD J. SULLIVAN, JR.—Licensed deck Officer. He graduated from the Maine Maritime Academy in 1951 and served as chief officer for Seatrain Lines, Inc. He is presently serving aboard the USCGC *Mackinac*.

LT. HAROLD B. SUMMEY—Licensed deck Officer. He served in various capacities aboard vessels of States Marine Lines, Inc., and Central Gulf Lines. He is presently aboard the USCGC *Chincoteague*.

CHMACH ROBERT C. SYKES—Licensed engineer. He graduated from the USMMA in 1944 and sailed aboard Sun Oil Company vessels.

CHBOSN JAMES R. WALSH—Licensed Master. He has sailed aboard vessels of the Lykes Brothers Fleet.

LTJG JOSEPH J. WICKS—Licensed deck Officer. He sailed as chief mate for the Bloomfield Steamship Company, and is presently serving aboard the USCGC *Sebago*.

Since the first examinations given under the 219 program in 1949, 145 merchant marine officers (including the present class) have been commissioned. This is in keeping with the Coast Guard policy of attaining a balance whereby 50 percent of all officers assigned to merchant marine safety duties would eventually be those with merchant marine backgrounds.

The requirements initiated in 1949 for this unique officer procurement program have been revised to more accurately reflect existing conditions. The entrance examinations emphasize practical subjects, i.e., navigation, seamanship, and engineering similar to the professional questions now given for deck and engine licenses. The period during which the examination may be taken is expected to be increased to give seagoing applicants a better opportunity to take the examination between trips without loss of time or pay.

The principal requirements for the various ranks are as follows:

LIEUTENANT (Junior Grade)

Age—Must not reach 32d birthday in the calendar year in which application is made.

License—Second Mate (unlimited)—Oceans or Coastwise; First Class Pilot (unlimited)—Great Lakes, Western Rivers, or other inland waters; or Second Assistant Engineer (5,000 or more horsepower); First Assistant Engineer (2,000 or more horsepower).

Experience—Four or more years' service aboard a vessel of the U.S. in the capacity of a licensed officer. Of this service, at least 3 years must have been served aboard commercial merchant vessels of the U.S. Credit for up to 1 year may be given for service aboard public vessels of the U.S. Service aboard public vessels, however, must meet the Coast Guard equivalency standards used to determine eligibility for a merchant marine license or a raise in grade.

LIEUTENANT

Age—Must not reach 38th birthday in the calendar year in which application is made.

License—Chief Mate (unlimited)—Oceans or Coastwise; Master and First Class Pilot (unlimited)—Great Lakes, Western Rivers, or other inland waters; or First Assistant Engineer (5,000 or more horsepower); Chief Engineer (2,000 or more horsepower).

Experience—Six or more years' service aboard a vessel of the U.S., in the capacity of licensed officer, of which not less than 1 year must have been served as Chief Mate or First Assistant Engineer.

Two years of the 6 required may have been served aboard public vessels. Service aboard public vessels, however, must meet the Coast Guard equivalency standards used to determine eligibility for a merchant marine license, or for a raise in grade.

An applicant who holds a degree from an accredited college, or who is a graduate of a Federal or State maritime academy, may substitute his degree, diploma, or certificate of completion for 1 year of the required 6.

Experience ashore as assistant port captain, assistant port engineer, marine surveyor, or comparable position may be substituted equally for up to 2 years of the required 6.

A combination of substitutions of educational credit and experience ashore cannot serve to reduce actual sea service below the 4 years required by law. Credit for service aboard public vessels cannot reduce the required sea service aboard commercial merchant vessels below 3 years. Substitution cannot be made for the required 1 year's service as Chief Mate or First Assistant Engineer.

LIEUTENANT COMMANDER

Age—Must not reach 40th birthday in the calendar year in which application is made.

License—Master (unlimited)—Oceans or Coastwise; Master and First Class Pilot (unlimited)—Great Lakes, Western Rivers, or other inland waters; or Chief Engineer (unlimited horsepower).

Experience—Twelve or more years' service aboard a vessel of the U.S., in the capacity of a licensed officer, of which at least 1 year must have been served as Master or Chief Engineer.

Four years of the 12 required may have been served aboard public vessels. Service aboard public vessels, however, must meet Coast Guard equivalency standards used to determine eligibility for a merchant marine license or for a raise in grade.

An applicant who holds a degree from an accredited college, or who is a graduate of a Federal or State maritime academy, may substitute his degree, diploma or certificate of completion for 1 year of the required 12.

Experience ashore as assistant port captain, assistant port engineer, marine surveyor, or comparable position may be substituted equally for up to 5 years of the required 12.

A combination of substitutions of educational credit, experience ashore, and service aboard public vessels cannot reduce the required actual sea service aboard commercial merchant vessels below 6 years. Substitution cannot be made for the required 1 year's service as Master or Chief Engineer.

Complete details of the program, eligibility requirements, scope of professional examination, and other pertinent details are included in the publication, CG–231, which is available in any marine inspection office. Persons who consider themselves eligible and wish to apply for an appointment as a commissioned officer should address a letter to Commandant (PTP), U.S. Coast Guard, Washington 25, D.C.

NEW COAST GUARD PUBLICATION

The Coast Guard's new boating publication, "Recreational Boating Guide, CG–340" is now available. It can be obtained from the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C. The cost of the guide is forty (40) cents per copy.

EQUIPMENT APPROVED BY THE COMMANDANT

[EDITOR'S NOTE.—Due to space limitations, it is not possible to publish the documents regarding approvals and terminations of approvals of equipment published in the Federal Register dated June 21, 1960 (CGFR 60–41). Copies of these documents may be obtained from the Superintendent of Documents, Washington 25, D.C.]

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 May 1960 to 15 June 1960 is as follows:

Lunkenheimer Co., Cincinnati 14, Ohio, Heat Nos. 626 and 627.

AMENDMENTS TO REGULATIONS

[EDITOR'S NOTE.—The following regulations have been promulgated or amended since the last isue of the PROCEEDINGS. A complete text of the regulations may be found in the Federal Register indicated at the end of each article. Copies of the Federal Registers containing the material referred to may be obtained from the Superinendent of Documents, Government Printing Office, Washington 25, D.C.]

TITLE 33—NAVIGATION AND NAVIGABLE WATERS

Chapter I—Subchapter C—Aids to Navigation

(CGFR 60-42)

PART 74, "Charges for Coast Guard Aids to Navigation Work" have been amended to provide in the regulations for charges for repair or replacement of aids to navigation that are damaged, destroyed or moved off station by private persons. The regulations are amended by the addition of the following paragraphs:

§ 74.01–1 Claim for damage or destruction.

* * * * *

(c) The repair or replacement with an identical or substitute aid as prescribed in this subchapter may be accomplished by the responsible interests, or by contractors employed for that purpose by them, provided the plans for the repair or replacement are satisfactory and the delay incident thereto is acceptable to the Coast Guard.

(d) Whenever a floating aid to navigation is moved off station by a private person without being otherwise damaged, claim for the cost of replacing it on station, including vessel time, shall be made against such person.

(Federal Register of June 4, 1960)

TITLE 46—SHIPPING

SUBCHAPTER Q—SPECIFICATIONS

(CGFR 60-37)

PART 160—LIFE SAVING EQUIPMENT

Subpart 160.047—Buoyant Vests, Kapok or Fibrous Glass, Adult and Child, for Motorboats of Classes A, 1, or "Not Carrying Passengers for Hire"

REVISED BUOYANT SPECIFICATION AND TERMINATION OF MANUFACTURERS' APPROVALS

In response to the comments received at the Public Hearing of the Merchant Marine Council the proposals were adopted with the following amendments:

a. The text was revised in 46 CFR 160.047–1(b), regarding revisions in drawing number 160.047–1, 160.047–5(b) regarding the envelope or cover, and 160.047–5(f) regarding stitching.

b. Postponed the termination date for all outstanding approvals for Models AK, CKM, CKS, AF, CFM, and CFS buoyant vests from "July 1, 1960," to "July 1, 1961."

c. On and after the effective date of these amendments to 46 CFR Subpart 160.047, no further approvals will be granted to manufacturers for Models AK, CKM, CKS, AF, CFM, and CFS buoyant vests.

Effective July 1, 1961, all the outstanding approvals for Models AK, CKM, CKS, AF, CFM, and CFS buoyant vests are hereby terminated. Notwithstanding this termination of approvals because such vests will not comply with revised Coast Guard requirements, all such vests manufactured pursuant to approved plans and requirements prior to July 1, 1961, may be placed in service and/or continued in use so long as such vests are in good and serviceable condition.

With respect to buoyant vests manufactured pursuant to interim approvals based on the proposed specification pending formal adoption of the specification, such vests are accepted with the understanding that on and after the effective date of the revised specification all future buoyant vests manufactured will be in compliance with the revised specification set forth in this document.

These specifications apply primarily to the manufacturers of these buoyant vests.

(Federal Register of June 16, 1960)

SUBCHAPTER N, EXPLOSIVES OR OTHER DANGEROUS ARTICLES OR SUBSTANCES AND COMBUSTIBLE LIQUIDS ON BOARD VESSELS

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

[CGFR 60-33]

Item XI of the Merchant Marine Council Public Hearing Agenda dated April 4, 1960 (CG–249) contained proposed requirements regarding dangerous cargoes. On the basis of the comments, views, and data received changes were made in 46 CFR 146.22–1 and 146.22–100. All other proposals in this item were adopted without change.

These regulations are incorporated in a special pocket supplement to the volume of the Code of Federal Regulations regarding Dangerous Cargoes in 46 CFR, Parts 146–149, and may be purchased from the Superintendent of Documents, Government Printing Office, Washington 25, D.C. The cost of the volume is 55¢.

(Federal Register of June 11, 1960)

ARTICLES OF SHIPS' STORES AND SUPPLIES

Articles of ships' stores and supplies certificated from 1 June 1960 to 30 June 1960, 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:

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.

Distributors and/or manufacturers	Brand	AWS class	Operating positions and electrode sizes (inch)				
			3/32 and smaller	3/16	7/32	1/4	5/16
Westinghouse Electric Corp., East Pittsburgh, Pa.	ZIP-12	E-6012	1	1		2	3

CERTIFIED

Dunham Chemical Co., 840 North Michigan Ave., Chicago 11, Ill., Certificate No. 429, dated 2 June 1960, DUNHAM D–188.

Sonneborn Chemical & Refining Co., 300 Park Ave. South, New York 10, N.Y., Certificate No. 430, dated 13 June 1960, WHISTL–SOLV.

Uncle Sam Chemical Co. Inc., 573–577 West 131st St., New York 27, N.Y., Certificate No. 432, dated 13 June 1960, EVERTUFF SAFETY FLOOR FINISH.

AFFIDAVITS

The following affidavits were accepted during the period from 15 May 1960 to 15 June 1960:

Baldwin-Lima-Hamilton Corp., P.O. Box 42, Philadelphia, Pa., CASTINGS.

American Brake Shoe Co., Engineered Castings Div., Ramapo Valley Rd., Mahwah, N.J., CASTINGS.

Minneapolis-Honeywell Regulator Co., 8330 North Austin Ave., Morton Grove, Ill., VALVES.

Minneapolis-Honeywell Regulator Co., Valve Div., 300 Commerce Dr., Ft. Washington, Pa., VALVES.

Gulfport Piping Co., P.O. Box 2067, Evergreen Station, Gulfport, Miss., FITTINGS AND FLANGES.

Raybestos-Manhattan, Inc.,[1] Manhattan Rubber Div., Passaic, N.J., FITTINGS.

Combination Pump Valve Co.,[2] 851 Preston St., Philadelphia 4, Pa., FITTINGS.

Double A Products Co.,[3] Manchester, Mich., FLANGES.

Aeroquip Corp.,[4] *Marman Div.,* 11214 Exposition Blvd., Los Angeles 64, Calif., FITTINGS.

Standard Nut & Bolt Co., 49 Abbott St., Cumberland, R.I., BOLTING.

[1] Affidavit covers rubber expansion joints only limited to Class II piping and a maximum temperature of 180° F.

[2] Additional listing of the company for fittings (valves are currently listed for this company).

[3] Additional listing of the company for flanges (valves are currently listed for this company).

[4] Coupling 6500 FLEXMASTER limited to Class II piping and a maximum temperature of 200° F. when fitted with rubber gaskets.

Changes Published During May 1960

The following publications have been modified by Federal Register:

CG–190 Federal Register, June 21, 1960 (25 cents).

CG–267 Federal Registers, June 25, 1960, and June 29, 1960.

MARINE SAFETY PUBLICATIONS AND PAMPHLETS

The following publications and pamphlets are available and may be obtained upon request from the nearest Marine Inspection Office of the United States Coast Guard. The date of each publication is indicated in parenthesis following its title. The dates of the Federal Registers affecting each publication are noted after the date of each edition.

CG No.	Title of Publication
101	Specimen Examinations for Merchant Marine Deck Officers (7–1–58).
108	Rules and Regulations for Military Explosives and Hazardous Munitions (8–1–58).
115	Marine Engineering Regulations and Material Specifications (3–1–58). F.R. 5–10–58, 4–25–59, 9–5–59, 3–17–60.
123	Rules and Regulations for Tank Vessels (12–1–59). F.R. 3–30–60.
129	Proceedings of the Merchant Marine Council (Monthly).
169	Rules of the Road—International—Inland (5–1–59). F.R. 5–21–59, 6–6–59, 5–20–60.
172	Rules of the Road—Great Lakes (5–1–59). (F.R. 6–1–59, 1–7–60, 3–17–60, 5–20–60.
174	A Manual for the Safe Handling of Inflammable and Combustible Liquids (7–2–51).
175	Manual for Lifeboatmen and Able Seamen, Qualified Members of Engine Department, and Tankerman (6–1–55).
176	Load Line Regulations (9–2–58). F.R. 9–5–59.
182	Specimen Examinations for Merchant Marine Engineer Licenses (12–1–59).
184	Rules of the Road—Western Rivers (5–1–59). F.R. 6–1–59, 6–6–59, 5–20–60.
190	Equipment Lists (4–1–58). F.R. 6–3–58, 7–4–58, 9–27–58, 12–31–58, 3–14–59, 6–20–59, 7–28–59, 9–3–59, 12–17–59, 3–16–60, 6–21–60.
191	Rules and Regulations for Licensing and Certificating of Merchant Marine Personnel (5–1–59). F.R. 5–26–59, 6–20–59, 7–21–59, 8–15–59, 9–5–59, 1–8–60, 3–17–60, 3–30–60, 5–6–60.
200	Marine Investigation Regulations and Suspension and Revocation Proceedings (7–1–58). F.R. 3–30–60, 5–6–60.
220	Specimen Examination Questions for Licenses as Master, Mate, and Pilot of Central Western Rivers Vessels (4–1–57).
227	Laws Governing Marine Inspection (7–3–50).
239	Security of Vessels and Waterfront Facilities (7–1–58). F.R. 11–1–58, 12–18–58, 12–30–58, 9–19–59, 2–24–60, 3–30–60.
249	Merchant Marine Council Public Hearing Agenda (Annually).
256	Rules and Regulations for Passenger Vessels (3–2–59). F.R. 4–25–59, 6–18–59, 6–20–59, 7–9–59, 7–21–59, 9–5–59, 1–8–60, 5–6–60.
257	Rules and Regulations for Cargo and Miscellaneous Vessels (3–2–59). F.R. 4–25–59, 6–18–59, 6–20–59, 7–9–59, 7–21–59, 9–5–59, 5–6–60, 5–12–60.
258	Rules and Regulations for Uninspected Vessels (9–1–59). F.R. 3–17–60.
259	Electrical Engineering Regulations (9–2–58). F.R. 6–20–59, 7–21–59, 9–5–59, 1–8–60.
266	Rules and Regulations for Bulk Grain Cargoes (5–1–59).
267	Rules and Regulations for the Numbering of Undocumented Vessels and the Reporting of Boating Accidents (5–1–59). F.R. 7–11–59, 7–18–59, 7–25–59, 9–5–59, 9–17–59, 10–2–59, 10–23–59, 11–19–59, 11–21–59, 12–5–59, 12–29–59, 1–1–60, 1–30–60, 2–13–60, 3–4–60, 3–17–60, 3–18–60, 4–6–60, 4–14–60, 4–20–60, 5–6–60, 5–11–60, 6–25–60, 6–29–60.
268	Rules and Regulations for Manning of Vessels (10–2–59). F.R. 12–18–59, 3–17–60, 5–6–60.
269	Rules and Regulations for Nautical Schools (3–1–60). F.R. 3–30–60.
270	Rules and Regulations for Marine Engineering Installations Contracted for Prior to July 1, 1935 (11–19–52). F.R. 12–5–53, 12–28–55, 6–20–59, 3–17–60.
290	Pleasure Craft (7–1–59).
293	Miscellaneous Electrical Equipment List (3–7–60).
320	Rules and Regulations for Artificial Islands and Fixed Structures on the Outer Continental Shelf (10–1–59).
323	Rules and Regulations for Small Passenger Vessels (Not More Than 65 Feet in Length) (6–1–58). F.R. 6–28–58, 11–19–58, 1–6–59, 5–26–59, 6–18–59, 6–20–59, 7–21–59, 9–5–59, 1–8–60.
329	Fire Fighting Manual for Tank Vessels (4–1–58).

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

U.S. GOVERNMENT PRINTING OFFICE: 1960

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