PROCEEDINGS

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PROCEEDINGS

OF THE

MERCHANT MARINE COUNCIL

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LCDR N. B. Binns, USCG, *Editor*
T. A. DeNardo, *Assistant Editor*

CONTENTS

FEATURES

FRONT COVER

The MORMACARGO, first of six new Constellation Class freighters, slides down the ways at Ingalls Shipyard in Pascagoula, Mississippi.

BACK COVER

Safety-conscious personnel on board two vessels of the United States Lines are shown receiving appropriate awards from the National Safety Council and the American Merchant Marine Institute.

THIS COPY FOR NOT LESS THAN 20 READERS—PASS IT ALONG

PUBLIC LIBRARY OF THE HIGH SEAS

The American Merchant Marine Library Association has just completed 42 years of supplying seagoing library units to the men who go to sea in American-flag ships. During this period of time, more than 234,659 library units, containing 13,844,942 books were distributed to American seamen. The AMMLA is the only national organization providing this type of service exclusively to the men who go to sea in American-flag ships.

The need for this service was first recognized when the American Library Association approached the U.S. Shipping Board during World War I to assist with a program of supplying books to the men of the American Merchant Marine. The ALA provided the books which were voluntarily distributed by the social service division of the U.S. Shipping Board. When the activity became too detailed a program to be administered voluntarily, AMMLA was founded.

On May 27, 1921, the Board of Regents of the State of New York provided the Association with a charter. From a modest beginning of only four U.S. port offices, the activity has grown to its present status whereby eight port offices are required to administer the library service to the men who go to sea.

In addition to the seagoing library service, the association also maintains shore library facilities at each of the United States AMMLA port offices. Here, individual seamen may borrow specific titles as well as books of study for use during sea voyages. A unique feature of the shore library permits the borrower to return the book to any AMMLA port office.

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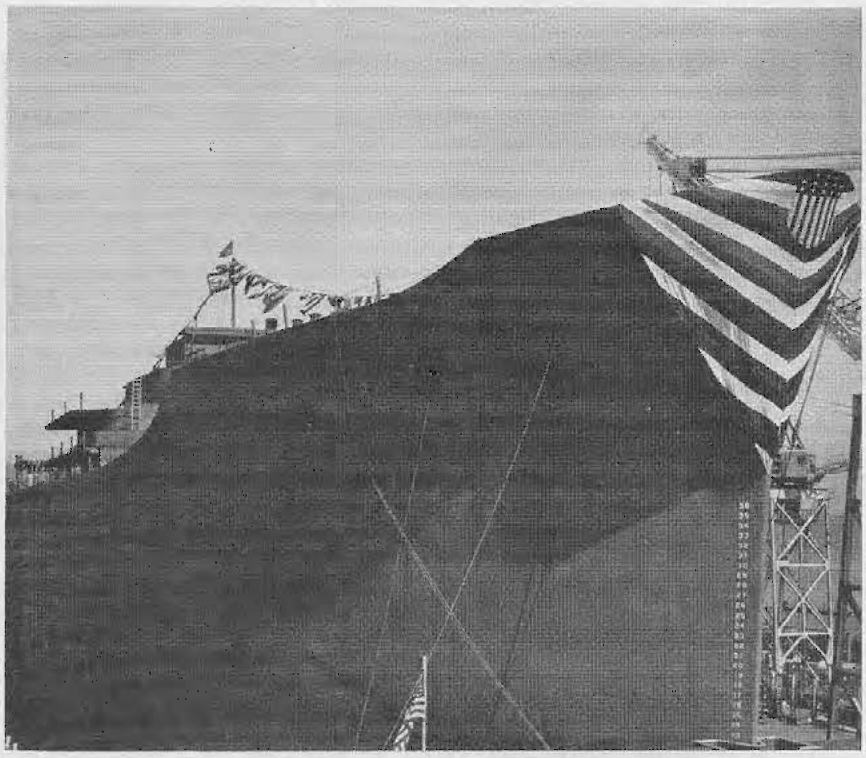
AMERICAN BUREAU OF SHIPPING

THE FOLLOWING ARTICLE is extracted from a speech made by Mr. Arthur R. Gatewood, president, at the 102d annual meeting of the American Bureau of Shipping in New York on January 28.



TECHNICAL ACTIVITIES

The past year has been marked by increased emphasis on the rules for various types of ships. The Rules for River Vessels mentioned last year have been completed and distributed widely in the United States and abroad. The specialized requirements for self-unloading cargo gear for Great Lakes vessels have recently been published.

A new Special Subcommittee—Chemical Cargos, has been formed to cooperate with the staff and other committees of the Bureau on problems associated with the carriage of chemical cargos in bulk. The majority of these cargos are liquid chemicals or solid chemicals in the liquid state and present various problems in handling because of their temperature, pressure, flammability, toxicity or sensitive chemical stability. In view of this, the chemical industry is heavily represented on the new subcommittee but there are also representatives from designers, builders and operators of vessels carrying chemical cargos and also a representative from the United States Coast Guard.

The Technical Committee approved several changes in the Rules for Ocean Vessels recommended by the Committees on Naval Architecture and Marine Engineering, of which the most important was the acceptance of hulls up to the largest sizes, as well as the smaller vessels, constructed without rivets in certain cases. The specifications for hull steel have been uniformly successful for a long period in avoiding the brittle fractures which led to their introduction for welded vessels and the inclusion of some rivets is no longer considered essential, except in special cases. Since there is a continued interest in the marine application of gas turbines and because there have been a number of installations during the past in several vessels classed with the Bureau, the Technical Committee approved new requirements in the Rules covering the construction and installation of gas turbines. Changes in the Rules were also approved to permit the utilization, under special precautions, of fuels having flashpoints below 120° F. (48.9° C.) because such fuels, including some crude oils, have become competitive with the residual fuel oils of higher flashpoints and are now being used or are being considered for use in boilers, internal combustion engines, and gas turbines. In line with these trends, it should be noted that two vessels currently building to Bureau Classification are arranged to burn low flashpoint fuel in their boilers by utilizing the boil-off vapors from cargo tanks which will carry methane gas at low temperature.

Additional men have been assigned at the head office and in Technical Staff offices abroad, to the full time study of the Rules and the development of requirements for emerging types of vessels designed to cope with new cargos and machinery arrangements.

Increased use of special barge types in such services as between the U.S. Pacific coast and Alaska has brought about approval of designs for these types having more extreme ratios of length to depth than in conventional vessel types, when the arrangement of structure is favorable.

The research into loads imposed on vessels by the sea continues to be actively pursued through theoretical analysis and model testing. Some modifications to the Rules for tankers have already been adopted in the light of results so far reported.

The Bureau has recently undertaken to sponsor the analysis and interpretation of the data to be taken in an extensive program of instrumenting ships in service now being developed in association with the shipowners and research investigators with a view to further refinements in knowledge of wave bending moments under realistic sea conditions.

The Bureau is cooperating with other classification societies in an effort to establish uniform standards or requirements in certain areas where international standards would be advantageous to all elements of the marine industry. One of these is in the field of uniform standards for arc welding electrodes and their qualification and several meetings in Europe on this subject have been attended by our Principal Surveyor, Metallurgy. Another such international study is in progress with the object of unifying the classification societies' requirements for equipment of anchors and chains.

The Technical Staff is investigating the use of digital computers for use in speeding those approval actions involving tedious check calculations

and are following with interest the use of analog and digital computer systems being proposed for marine application and currently used in shoreside power stations for the more advanced forms of powerplant automation. A recent study at Massachusetts Institute of Technology has resnlted in a method for the determination of optimum scantlings in accordance with the Bureau's Rules by means of a digital computer.

GENERAL COMMENTS

Reviewing the past year I must state that so far as the American Bureau of Shipping is concerned we found it satisfactory. We are aiming to improve constantly the quality of our services to owners, builders and others in the shipping community, and this primarily mnst be based on our staff. A matter of continuing concern to us is the replacement of our retiring surveyors by recent graduates of engineering colleges with a good academic background and sound practical experience. In this coming year our Technical Staff intends to follow Rule developments very closely, with particular regard to the scantling requirements, and in years to come we intend to stress this phase of our work even more. This is a matter of long-range planning, and as we have full confidence in the future of international shipping, we feel that such planning is soundly based.

The shipping position has changed radically for the better since our last annual report. At that time the number of laid-up ships had been increasing, and in the last year this situation has completely turned around. We know now that the number of ships in layup reached a peak in February of last year and has been declining ever since. The improvement in freight rates has been considerable, so that owners who have suffered through one of the longest shipping depressions in recent shipping history have been able to run their vessels on other than marginal rates. The fact that rates are still firm after absorbing the feared influx of ships from layup indicates that so far at least this recovery has been a healthy one. This improvement in freight rates has been accomplished also in the face of the entry into the market of new modern large fast ships, particularly tankers.

It is worthwhile noting that our concept of a "super" tanker is changing upward as the years go on. It is quite safe to say that when the T2 tanker was introduced during the war this type of vessel was considered to be very much on the large side, and there was considerable anxiety expressed by knowledgeable people as to the feasibility of its employment during peacetime conditions because of its size. The largest tanker afloat today, the *"Nissho Maru"* of 130,000 tons deadweight, has a lifting capacity of the equivalent of approximately nine T2 tankers. New fast tankers with a capacity of six times that of the T2 are not uncommon, and perhaps it would be wise to keep an open mind as to what really is a "super" tanker.

In the semiannual report last July, we discussed the possibility of increasing shipments of food stuffs, and this has become a reality because of the need of Russia and China for grain by reason of serious crop failures. The necessity to increase food production in some countries is transcending all idealogical dogma, and we may expect that many marginal producers throughout the world will learn what the efficient producer accepts as a fact: That chemical fertilizers must be applied if crop yields per square unit are to increase. This would mean either the manufacture of chemical fertilizer by the marginal producers, or its import from nations which already have efficient industries producing such fertilizer. The fact that the sulphur producers are aware of this is reflected in the constrnction of vessels specifically designed for the carriage of liquid sulphur, as this element is vital in chemical fertilizer.

It cannot be denied that there is a compelling desire throughout the world for an improvement in the standard of living, and if this is coincident with an increase in real production, international shipping has good prospects over the long term. Shipping is a business characterized by the most severe competition, which drives shipowners to use every expedient to cut costs and remain competitive. There is one essential element which limits the shipowner in decreasing his costs, and that is the ship itself. It must not only be built, manned and operated in the most efficient manner, but it must be seaworthy, and we are safe in saying that the standards of the classification societies such as the American Bureau of Shipping contributes to the seaworthy ship.

In this connection I should like to speak briefly about the safety of vessels, which I can do in a very positive way. Accidents happen at sea and they always will. The ship is a completely self-contained unit with her machinery, stores, and fuel, she is manned by human beings, is subject to all the perils of the sea, and yet the safety record of travel by sea and shipment by sea is an impressive one, and is improving year by year. There is no room for complacency, however, and international meetings are held periodically to discuss safety of life at sea and loadline requirements. The various governments concerned are continuously revising their regulations, and the classification societies have their Rules under constant scrutiny year in and year out to see how they may be improved. I should like to pay tribute here to the various Technical Committees of the American Bureau of Shipping in the United States and abroad. They are made up of outstanding individuals in their fields who give unstintingly of their time without compensation, except for the satisfaction of contributing to the achievement of the ideal of all shipping men, the seaworthy ship.

SS MORMACARGO

The recent launching of the *Mormacargo* marks the first of a series of six vessels of the "Constellation Class" which are being constructed for Moore-McCormack Lines by Ingalls Shipbuilding Corp. at Pascagonla, Miss. The 12,100 deadweight ton vessel is powered by a single screw geared steam turbine power plant which, together with the fine lines of this class and the "bulbous bow", may well produce an operating speed in excess of the designed 21 knots.

ARGO

The first vessel of the class is named for the constellation "Argo" which in reality consists of the smaller constellations of Carina, Puppis, Vela, and Pyxis, in the southern hemisphere between Canis Major and the Southern Cross.

CARGO HANDLING AND STOWAGE

This class is designed with 29 quick acting hydraulic hatch covers for six holds. A Stuelcken 75-ton rig is available to serve No. 3 and 4 hatches as well as 5- and 10-ton derricks for all hatches and a deck crane for No. 5 and 6. There is approximately 40,000 cubic feet of refrigerated cargo space and plastic coated deep tanks for bulk liquid cargoes.

SPECIAL FEATURES

The speed of the vessel will be controlled directly from the control

CONSTELLATION CLASS FREIGHTERS

console on the bridge, including automatic control of the high-speed, superheated boilers. The vessels of this class will also carry controlled tension, electrically operated, mooring winches.

GENERAL NOTES

The interior living spaces will be air conditioned and there is a passenger elevator from the lower decks to the bridge deck. The boilers are top-fired and will operate in the 850 psi at 950° F. area. Evaporator distilling capacity is 20,000 gallons daily. The "working" smokestacks are located inside two king posts just abaft the deck housing. The vessels will carry radar, loran, radio direction finders, both voice and CW radio installations, fathometer, and gyro compass.

The *Mormacargo* is approximately 550 feet long by 75 feet wide with a maximum draft of almost 32 feet and a displacement weight of 19,800 tons. She is designed to carry 12 passengers and a crew of 32, with a dry cargo capacity of some 665,000 bale cubic. The Constellation Class is of special design, but will carry the overall general classification as a C–4 cargo vessel.

A VIEW OF 5 of the new Constellation Class freighters under construction on the ways of Ingalls Shipyard in Pascagoula.

LET'S STRIVE FOR COLLISION-FREE WATERS

By LIEUTENANT COMMANDER RICHARD M. THOMAS, USCG

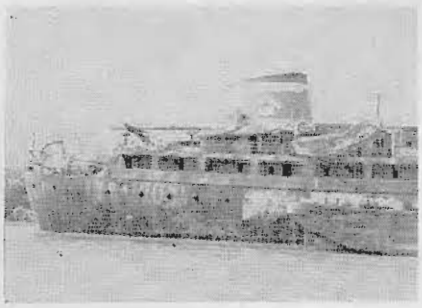
CHIEF, RULES OF THE ROAD BRANCH, HEADQUARTERS

THE FOLLOWING ARTICLE is taken from a paper presented by Lieutenant Commander Thomas at the 1963 meeting of the Marine Section of the National Safety Congress.

On the average of once every day a collision occurs involving U.S. vessels, and for every 10 collisions 1 man loses his life. I would like to present proposals for two methods by which the number of collisions can be reduced. They offer logical steps in the direction of attaining collision-free waters.

UNNECESSARY DIFFERENCES

The first proposal concerns the elimination of all unnecessary differences between our own statutory Rules of the Road for Inland, Great Lakes and Western Rivers areas and the International Rules. These three sets of rules applicable to U.S. waters were developed from the *International Regulations for Preventing Collisions at Sea,* which is the official title of the International Rules. That statement might imply that the Inland, Western Rivers and Great Lakes Rules are very close to the International Rules in form and substance and that mariners moving from an area governed by one set of rules into an area governed by another would experience little difficulty. However, the three local sets of rules governing U.S. waters were enacted into law at different times in the past, and were based generally upon the International Rules existent at the time. The International Rules of 1864, 1889 and 1948 were successively adopted by this country. A bill authorizing the President to proclaim the 1960 International Rules at a future date was passed by Congress and is now P.L. 88–131. The Western Rivers Rules were based on the 1864 International Rules, but were amended and reenacted in 1948. The Inland and Great Lakes areas also followed the 1864 International Rules initially. However, when the 1889 International Rules, became effective, they applied only to the high seas and waters connected therewith. In 1895 a separate set of Rules for the Great Lakes were enacted, and in 1897 the Inland Rules were enacted. The International Rules changed in 1889, but the 1864 International Rules substantially remained in effect in our Western Rivers. The result of this is that



each of the three sets of local U.S. rules differs from the others and from the 1948 International Rules, which are currently in effect. Further, as soon as the 1960 International Rules are proclaimed, the differences will increase.

DIFFERENT AREAS—DIFFERENT RULES

As already suggested in their International title, Rules of the Road have one purpose—the prevention of collisions between vessels. To attain this purpose, they have had to be simple, logical, disseminated to all, understood by all, and uniform. Our own Rules of the Road found in our three geographical local divisions should also have these attributes and circulation. For each area, the given U.S. rules generally do comply, but they are not the same as the rules in the adjacent areas. This has created problems, particularly where vessels that normally ply oceans move into local U.S. areas. The foreign skippers can encounter difficulties in following fog signals and the steering and sailing rules, and probably do so frequently. It is only when casualties occur, or violations are reported, that the Coast Guard has a concrete record of these difficulties created by differences between our own Rules and the International Rules. Let's look at a couple of these incidents.

COLLISION EXAMPLES

The first occurred on 9 August 1961 in heavy fog at the northern end of Lake Michigan. It involved a hit-and-run collision between a Greek freighter and a small American freighter. Granted, the Greek Captain had improper pilotage for the waters, but his Canadian pilotage license was valid for the other Lakes following the Great Lakes Rules of the Road. He sounded the International signal for vessels in fog, a 4 to 6 second blast, in lieu of the Great Lakes signal, three blasts of equal length. The International Rules require maneuvering whistle signals to be sounded only when vessels are in sight of one another, while the Great Lakes Rules allow them to be used at any time regardless of visibility. As a result, the master of the small freighter sounded a single blast to indicate a port to port passing when no vessel was in sight and immediately heard the answer of a single blast, which was longer than the usual single blast. This led him to believe there was assent to his proposal for a port to port passing. The Greek vessel intended to sound no passing signals because the other vessel could not be seen, but continued sounding the prolonged blast International fog signal. Her master assumed that the radar target on his starboard bow was on a reciprocal course and would pass starboard to starboard. The ensuing collision, which caused less than $5,000 damage, would in all likelihood not have resulted had there been only one set of Rules of the Road governing areas in which oceangoing vessels navigate.

SECOND COLLISION EXAMPLE

The second collision took place recently in the channel of Lake St. Clair, again in heavy fog. A large American steamer was bound northeast on her own port side of the channel and a Canadian motor vessel was proceeding southwest keeping to her own starboard side. When the two ships approached to within about 1,500 yards of each other, the former blew a two blast signal for a starboard to starboard passing. The latter did not hear this signal, but sounded one blast for a port to port passing and came right. The steamer came left, then tried to reduce or kill her way, which was excessive, by backing and by dropping the starboard anchor. The motor vessel sounded the danger signal and backed full. The ensuing collision caused about $200,000 damage. Part of the cause of it can be attributed to certain aspects of the Great Lakes Rules that differ from the Inland and International Rules; these are the absence of a narrow channel rule that would require only port to port passings in such channels as in Lake St. Clair and the pro-

vision within the rules that permits vessels to sound whistle signals for passing when vessels are not in sight of each other. The first difference permits vessels to navigate on their own port or left-hand side of such channels and can encourage complete misunderstanding in fog. The other difference encourages masters to have their vessels proceed at speeds that are not commensurate with the visibility and to blindly arrange for passing oncoming traffic without knowing the relative positions and aspects of the vessels involved. It is once more obvious that one set of Rules of the Road would be more workable. The Canadian vessel in this collision, while not without fault, was attempting a logical port to port passing, as any mariner would do under International and Inland Rules, and as the driver of a car would do on any highway in this country. Please consider how chaotic the roads would become if drivers were permitted to decide whether they would pass each other on their left or right sides when meeting nearly head on.

NEAR MISSES NOT TABULATED

These examples arise from among the reported cases. The near misses that arise as a result of misunderstanding caused by the differences between our various sets of Rules of the Road cannot be tabulated. The only possible solution to these problems is to change all our own rules so that they follow the International Rules closely wherever possible, the futility of any attempt to change the rest of the world being apparent.

THE UNNECESSARY DIFFERENCES

What are these unnecessary differences between our own rules and the International Rules? There are many, some of which are mere matters of form that do not materially affect safety, but many are substantial and do make our waters less safe than they could be. This category naturally includes the three blast whistle signals found in the Western Rivers Rules and, in the case of fog signals, the Great Lakes Rules, which can mean—I am a vessel with or without a tow in fog, I am a downbound vessel with a tow and have the right of way over all crossing vessels, I am approaching a bend around which oncoming vessels cannot be seen for a distance of 600 yards, or I am being moved from a dock or anchorage. In Inland and International waters this signal means my engines are going astern. Unfortunately, no backing signal is provided for Great Lakes and Western Rivers.

The list of differences that materially affect safety also includes the Great Lakes Rule permitting the exchange of passing signals when vessels are not in sight of one another, an especially dangerous practice when a vessel meets two others. It includes the omission of a narrow channel rule in the Great Lakes, where many collisions, particularly in fog, have resulted that are similar to the steamer-motor vessel case just mentioned. However, the absence of a narrow channel rule on the Western Rivers is not an example of an unnecessary substantial difference between our own and the International Rules because local traffic and river conditions require the degree of flexibility now allowed on Western Rivers. Likewise, considering the restricted waters in which they are used, the intent whistle signals of our three sets of Rules seem to be well justified in lieu of the rudder signals required on the high seas.

As for lights and shapes, I believe that the existing differences in their height and separation are not detrimental to marine safety, as long as any particular configuration of light or shapes has the same meaning under all sets of rules. This ideal condition does not currently exist with respect to most vessels unable to maneuver by reason of occupation or due to being not under command and with respect to fishing vessels. It also is missing in the field of towing vessels and vessels towed; however, the special nature of inland towing justifies some minor differences.

SEAMANSHIP IS INTERNATIONAL

Seafaring is necessarily an international endeavor. Even in our territorial waters this is becoming more and more evident. Due to the increase in ocean traffic of many flags up the Mississippi to Baton Rouge and to the presence of ocean traffic on the Great Lakes occurring since the opening of the St. Lawrence Seaway, our Rules of the Road now need overhauling and "internationalizing" as they never needed it before. One may play this down by saying that all the waters in question require pilots who are well versed in the local rules, but the master of any vessel is responsible for its safety, regardless of a statutory requirement for local pilots.

The International Rules provide for the existence of special local rules which are necessitated by local circumstances, but Recommendation 53 of the 1960 International Conference for Safety of Life at Sea urges that all nations subscribing to these rules strive to bring their rules prescribing lights, shapes, and signals into as near agreement with the International Rules as is practicable. The position of the Coast Guard is that this unification should be accomplished not only with respect to the rules pertaining to lights, shapes and signals, but with the steering and sailing rules as well.

VOICE RADIO COMMUNICATION

The second proposal is for the use of bridge-to-bridge voice radio communication which has possibilities as an additional means of reducing the number of collisions. Bridge-to-bridge radio is used by at least one pilot association and is used extensively by tow boats on the Western Rivers and the Gulf Intracoastal Waterway. It is certainly to be considered as an anti-collision device under some circumstances.

In reviewing casualties in which Rules of the Road and, in particular, the exchange of whistle signals are a primary factor, one cannot help but wonder if some of these casualties would have occurred if navigational information had been relayed via bridge-to-bridge radiotelephones. In recent years two disastrous collisions occurred in the lower Mississippi River; both illustrate how necessary complete information about the intentions of approaching vessels can be.

The first of these collisions resulted after a logical exchange of two-blast signals between an American steamer and the Italian motor vessel. Unfortunately, the American steamer, in rounding a bend to the right, continued to swing right to the extent that she showed red and green lights to the Italian motor vessel until less than 1,000 yards away; in spite of the exchange of the two-blast signals, this extended swing created doubt in the mind of the pilot of the Italian vessel

ABOUT THE AUTHOR

LIEUTENANT COMMANDER THOMAS graduated from the Coast Guard Academy in 1951, and the George Washington University Law School in 1959. After several tours of duty afloat and ashore, including assignments in Marine Inspection, he was assigned to his current position as Chief, Rules of the Road Branch, in the Merchant Vessel Inspection Division at Headquarters.

so that he ordered hard right rudder when the American steamer had begun to come left enough to carry out the originally planned passing. In spite of the high rate of approach of the two vessels, which was over 30 knots, the excellent visibility conditions and the timely exchange of signals should have easily precluded the occurrence of a collision. However, the use of radiotelephones by the two pilots might have prevented the pilot aboard the Italian motor vessel from losing his nerve or confidence at the crucial time. He could have been informed by his counterpart on the American steamer that the vessel had swung a little bit more to the right than was desired around Sixty Mile Point, but that she was coming left slowly and would carry out the starboard to starboard passing intended. This simple bit of information might have averted 10 deaths and a serious mar on the U.S. inspected passenger vessel safety record.

The second collision involved the previously mentioned three-blast-fog signal under Western Rivers Rules being mistaken for a two-blast signal proposing a starboard to starboard passing. The pilot of the ascending towboat stated that he initially signaled with three blasts to indicate his presence because he believed the visibility warranted this. The descending Norwegian motor tanker heard only two blasts and responded with two. The towboat did not hear the two, but sounded one. The stage was then set for a collision with the towboat and its tow of 80,500 barrels of crude oil moving up for a port to port passing without actually hearing an assent to his proposal and the Norwegian motor tanker with a cargo of over 12,000 tons of combustible chemicals confidently moving down for a starboard to starboard passing. This may add to the previous discussion calling for unification of the rules and elimination of the peculiar three-blast signals used on Western Rivers and Great Lakes, but it also points out how confusion can easily result when whistle signals are used by a diesel propelled vessel having a fairly high noise level. Again, radio communication might have avoided the ensuing collision and prevented twenty untimely deaths in the resultant inferno.

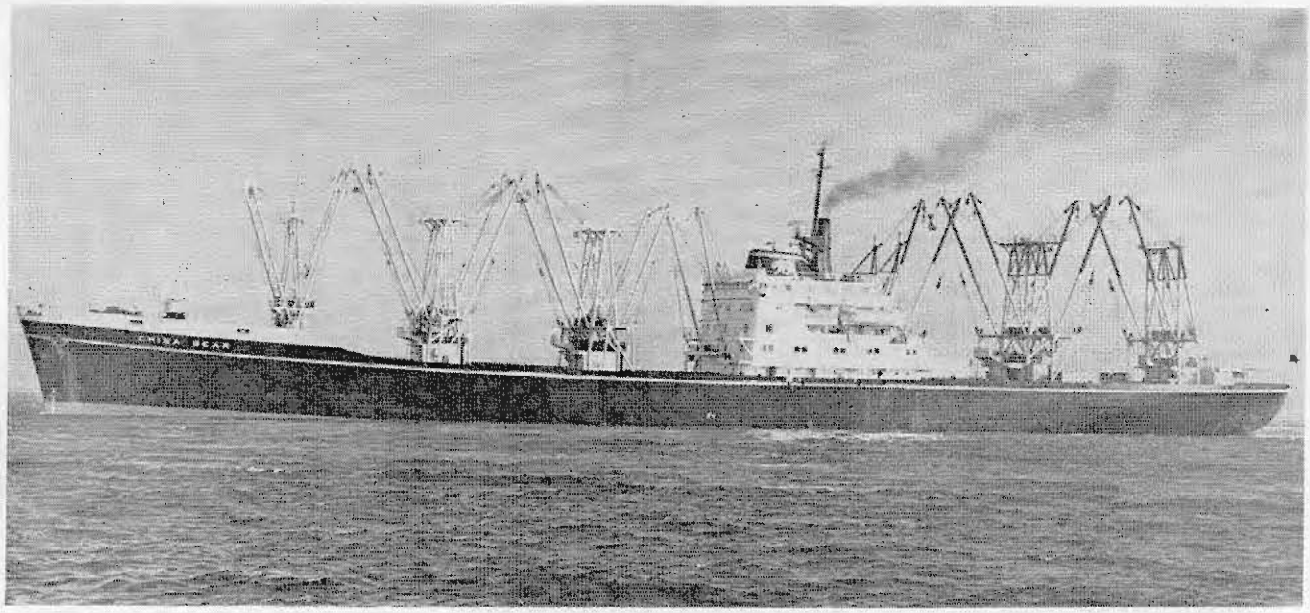
Bridge-to-bridge radio is not a cure-all for all possible areas in which collisions frequently occur. It has certain drawbacks, some of which are very minor, but some of which can nullify its effectiveness at times. These limitations include the question of identification of the vessels making radio contact, possible overdependence upon it with corresponding disregard of the Rules of the Road, and language barriers. The identification question can often be solved by exchange of vessel positions and description of traffic within sight. Overdependence on bridge-to-bridge radio is the big danger, as it can occur at the time of electronic failure. But, its use is similar to that of radar, loran, and other electronic navigation devices; each is merely an aid and should be utilized intelligently wherever available and operative. The language barrier is overcome in U.S. waters, where vessels of any size have at least a pilot aboard who speaks English.

Bridge-to-bridge radio is utilized in many areas of the United States today. The Coast Guard, with its responsibility for marine safety, is studying its use and effectiveness. In connection with this, it should be noted that the Secretary of the Treasury's Committee on Tanker Hazards recommended, "That bridge-to-bridge radiotelephone be used in congested waters by all ships for the exchange of navigational information. A single frequency should be assigned and its use limited to this particular purpose."

Bridge-to-bridge radio, like radar, is not a substitute for learning and constantly applying the Rules of the Road. It is merely an aid that will help resolve doubt in certain situations. As illustrated, it is especially useful in areas where the narrow channel rule is not applied; also, it will help resolve the borderline questions between crossing and meeting situations for the benefit of those who would be privileged under the former.

CONCLUSION

In conclusion, with an eye toward reducing the frequency of collisions, the Coast Guard will work for the adoption of uniform Rules of the Road based upon the International Rules and will continue to watch present bridge-to-bridge radio applications. There is no suggestion here that the adoption of adequate safety laws and regulations can ultimately eliminate collisions, for this would theoretically require an oppressive and impossible degree of control over all masters and pilots and still would not accomplish its purpose. The aim of the Coast Guard is to promote safer navigation to the degree practicable and I believe that the unification of the U.S. rules and the adoption of bridge-to-bridge radio will do just that.



TELECOMMUNICATION EQUIPMENT IN THE SS PHILIPPINE BEAR

By WILLIAM N. NATIONS

PORT RADIO OFFICER, PACIFIC FAR EAST LINE, INC.

IN 1959, the Pacific Far East Line contracted with the Maritime Administration for the construction of two new ships. These ships, SS *Philippine Bear* and SS *China Bear*, for which a radio telecommunication facility was to be specified, were to be Mariner-type cargo ships of about 13,000 tons gross and 20 knots speed. Upon completion, these ships were to be placed in the trans-Pacific berth service on Trade Route 29 trading to the Orient. Service would be principally to Japan, the Philippine Islands, Formosa, Hong Kong, and Southeast Asia.

This combination of characteristics and the route to be traded presented several interesting telecommunications problems. First, the Pacific Ocean is roughly twice as wide as the Atlantic; therefore, communicating ranges are, on the average, twice as great.

Second, the large cargo capacity of the ship, the variety of cargoes carried to 15 outports on a 45-day turnaround in 16 dry cargo compartments, 15 reefer compartments, and 14 liquid cargo spaces increases the telecommunication load.

Third, the ship's speed of 20 knots results in a 48-hour ETA message to the next port, for example, having to be sent at a range of 960 miles as compared with half that distance for a ship of half that speed. Also, the ship's high speed reduces the time between outports to an average of less than 22 hours. During this time, the ship's radio station is open perhaps 8 hours. During these 8 hours, all coastal stations must be cleared, an ETA, a quarantine message and perhaps several other messages must be sent, and the weather and navigational information must be received, all under conditions of heavy interference which prevail in the Orient.

The radio station on a high-speed ship can be an exceedingly busy place. Services provided to the Master include safety communication, meteorological and navigational warning, radiotelegram sending and receiving, and radiotelephone. If the best possible services are to be provided under the prevailing conditions, an impressive array of the most modern, electronic, telecommunication equipment will be required. Any compromise of this high standard will seriously degrade the quality and kinds of telecommunication services furnished the Master.

Maximum use must be made of the time during which the radio station is open at sea. Systems which handle the maximum amount of traffic in the shortest time must be utilized. The ship's Radio Officer's time must be used effectively and efficiently.

To meet these requirements, facsimile and teletype can be used. These are, in a sense, semiautomatic systems; once they are started up by the operator, they will complete the receiving operation unattended while the operator goes about other tasks. Also, in a given time, high-speed transmission systems such as teletype will receive three times as much weather information and will transmit or receive three times as many messages as a human operator can handle.

Receivers of maximum sensitivity, selectivity, and stability will minimize the time required to tune in distant stations amid interference; these characteristics frequently will mean the difference between a successful contact at the time it is desired or a wait of several hours for better conditions.

Transmitters of the maximum legal power will permit our ships to compete for the attention of coast station operators on an even footing with foreign ships which are regularly equipped with high-powered transmitters. This also will frequently mean the difference between rapid communication or returning the message to the Master with the report, "Sir, I can't raise 'em."

So Pacific Far East Line undertook to specify and subsequently to assist

727-447—2——64

the vendor to design, build, install, and place in operation what can be pointed to with great pride as the finest telecommunication facilities in any U.S.-flag cargo ships.

ANTENNAS

This discussion will start at the top, so to speak—specifically with the antennas. In view of the amount and kind of telecommunication apparatus that was to be installed in the ship, the erection of wire antennas in sufficient number to serve the need would have produced a veritable spider web.

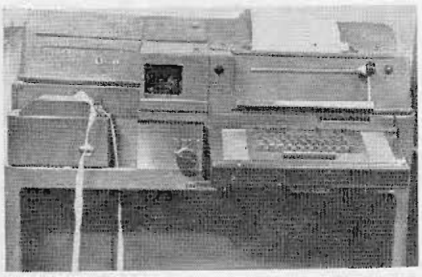
Six antennas were required for telecommunications. This number includes the main antenna and the emergency antenna, which are compulsorily fitted, and four receiving antennas; two of these are non-frequency-conscious but spaced for diversity, and two are frequency-conscious for peak sensitivity on the marine 13 and 17 megacycle bands.

When the three antennas required by the ship's electronic navigation apparatus (loran antenna, radio direction finder sense antenna, and the multicoupler antenna which is part of the ship's entertainment systems) are added to the telecommunication requirement, a total of nine antennas is required.

While on the subject of antennas, notice the location chosen for the radio direction finder loop antenna at the truck of the highest mast. Being a fixed loop model and free from the limitation of mechanical connection between the RDF equipment and the loop, the equipment required only an electrical connection and could, therefore, be located out of the troublesome areas of stay wires, adjacent structures, induced noise, and private wire antennas.

The loop foundation and installation required great care because of the vibration and stack fume problems in the new location, but the results have been highly satisfactory. Quadrantal error is minimal, and the loop is essentially immune from future changes in wires and structures which usually necessitate recalibration. There is virtually no induced noise. The range of accurate and reliable radio direction finder bearings is several hundred miles greater than on ships where the loop is located differently.

Of the nine antennas, five were installed as free-standing verticals, each 35 feet in length. These antennas were placed about the top of the midship house. The antennas were placed near the corners of the house in order to draw structural support from the corner bulkheads beneath. A center antenna on the port side is located adjacent to a steel bulkhead



TELETYPEWRITER (Tapepunch and transmitter, automatic send and receive).

below the deck. These locations were necessary because the antennas are not guyed or sway braced in any way; they depend for support solely upon their base insulator and the strength of the deck into which the insulator is set.

Each base insulator displays amazing physical strength. The assembly is made up of an upper and a lower porcelain bowl fitted together against a bronze mounting ring and bell ends. An anchor bolt through the whole assembly is torqued to 400 foot-pounds. The mounted insulator will withstand a 100,000 inch-pound cantilever load. In high winds, the antennas simply lay back slightly but are in no danger of failure. Use of these free-standing verticals has eliminated a forest of wire, blocks, halyards, and lead-ins.

The remaining four antennas were erected in the conventional way with wire. Two frequency-conscious doublets with coaxial cable lead-ins run from the signal mast to the king posts. The emergency antenna "wraps around" the midship house and is supported by stub masts atop the king posts at the corners of the superstructure.

The main antenna is over the centerline and is supported by the foretopmast and the signal mast. This antenna overhangs three of the ship's six hatches. When heavy lift equipment, grain spouts, or other gear necessitate taking down antennas, only the main antenna needs to be taken down, and only the forward end of that one is lowered. Because damage to antennas occurs most often during lowering and raising, by minimizing these occasions and the number of antennas involved, it is believed that maintenance costs have been minimized.

Another major cause of antenna failure is from weakening of the wire because of the corrosive effects of stack gases where the wire passes above the smokestack. This cause of failure is eliminated by designing the ship's antennas in such a way that no antenna overhangs the stack.

It should be noted, also, that the main antenna is of the inverted "L" type as opposed to the offcenter "T" type usually found on cargo ships. The "L" configuration has two distinct advantages:

(1) As a radiator, it is easier to load electrically and is, therefore, a more efficient radiator of the radio signal supplied to it by the transmitter, and;

(2) It can be carried slack enough to prevent breakage when the antenna supports flex, because the downlead is attached at the end (where movement is at a minimum) instead of near the center point of maximum motion.

The antenna trunk is of reinforced fiberglass construction, free standing and self-draining.

Two transmitting antennas, the main and the emergency, are carried in open copper tubes to a Transmitter Antenna Patch Field. Patch fields of this type were first developed for Pacific Far East Line's *Golden Bear* and have been successfully used since on several ships. This results in simple, reliable, and completely flexible interconnection of any transmitting antenna to any of two medium frequency (MF) and two high frequency (HF) transmitters.

Four receiving antennas, two verticals and two doublets, are carried in coaxial cable and jacked into a Receiving Antenna Patch Field. Through jacks on the Transmitter Antenna Patch Field, the receiving side of the main and emergency MF transmitter break-in relays, and the two transmitting antennas as well, also appear on this field. This Receiving Antenna Patch Field facilitates a simple, reliable, and completely flexible interconnection of any antenna to any of the two MF and three HF receivers.

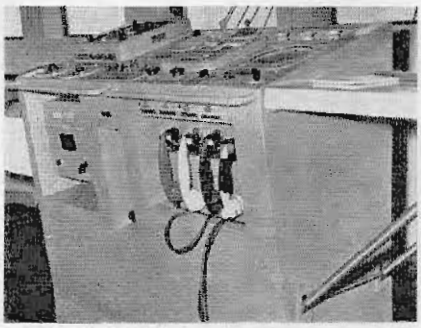
The patch field arrangement is again employed at the receiver audio level. Outputs of all five receivers jack into an Audio Patch Field, also upon which appear the audio inputs of all auxiliary equipment. This arrangement makes possible a simple, reliable, and flexible interconnection of any receiver with the auxiliary equipment of any of the several systems of telecommunication of which the ship's station is capable.

MODES

Telecommunication capability of these ships includes four systems, namely:

1. Radiotelegraph (CW)
2. Radiotelephone (R/T)
3. Radioteletype (RATT)
4. Radiotelephoto (FAX).

Each system employs auxiliary equipment peculiar to the system plus a transmitter and a receiver.



RADIO TELEPHONE handsets incorporated into bridge console.

RADIOTELEGRAPH (CW)

Taking the systems in the order listed, the traditional CW mode comes under examination first. Auxiliary equipment in this system is extremely simple—a telegraph key and a pair of earphones. Just such simplicity makes the CW mode of operation especially reliable, and it has given to this system a long and honorable record of providing record communications to, from, and between ships at sea.

More than 70 percent of our off-ship dispatch communications are still being handled by CW. It is, therefore, only natural that the maximum power and redundancy were desired in this capability. To achieve this, it was specified that all four transmitters—even those normally considered to be radiotelephone transmitters—be also capable of CW operation. This is particularly advantageous where the ship is fitted, as is this one, with a 1,000-watt single sideband radiotelephone transmitter. It is clearly advantageous to include the CW capability, which handles 70 percent of the communication, in the highest powered transmitter aboard the ship. This is not the most frequently encountered arrangement.

The importance of CW is further revealed in the equipment capabilities. All four transmitters and all five receivers have the CW capability. This capability provides a very high redundancy in the CW mode. Failure of any one transmitter and any one receiver will not seriously affect the CW capability; in fact, as many as two transmitters and three receivers may fail, and the ship still will retain CW capability on both MF and HF bands.

RADIOTELEPHONE (R/T)

The second communication mode is Radiotelephone. Auxiliary equipment of this mode includes modulators, control panels, and telephone handsets in the radio room with extension phones on the ship's bridge. These are arranged so that in the R/T mode either HF transmitter may be employed in conjunction with any HF receiver. Because the R/T mode is not permitted or used in the MF band (below 2000 kc/s), this capability is not included in the MF transmitters. Radiotelephone capability for this ship includes both the coastal-harbor (2–4 Mc/s) and the high seas (4–24 Mc/s) services, and both these services are provided by each piece of equipment.

RADIOTELETYPE (RATT)

The third communication mode is radioteletype (RATT). On board ship, RATT is still in the developmental stage but is nearing the end of that stage. A moderate but increasing percentage of the off-ship record communication is now being handled by this equipment. Auxiliary equipment in this mode is more elaborate than for any other.

In the transmit phase, typing on the printer (or teletype machine) keyboard sends d.c. pulses to the frequency shift keyer (FSK). There the pulses are converted to a low-power frequency shifted signal at radio frequencies. This is passed on to either of the HF transmitters for amplification and emission as an outgoing radio signal.

In the receive phase, the incoming radio signal is picked up on an HF receiver and reduced to audio. The audio signal is passed to a converter which filters out static and interference and converts the signal to d.c. pulses. These d.c. pulses actuate the teletype printer and cause the machine to type out the incoming message.

In practice, two HF receivers are employed simultaneously in frequency, space, or polarity diversity depending on the antennas connected to each receiver. Audio outputs from each receiver are fed separately into the converter which has the capacity to compare the two and utilize only the better one. In situations of fading and weak signals, this results in excellent reception under conditions which would render even CW of doubtful effectiveness.

Coastal radiotelegraph station KTK near San Francisco, operated by Globe Wireless, Ltd., is acting cooperatively with Pacific Far East Line in providing the shoreside component of the RATT service. Service for the transmission and reception of messages on a developmental basis is rendered in order to evaluate the system and to train operating personnel.

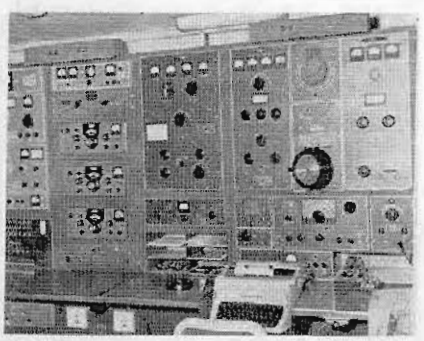
Excellent results have been achieved. Teletype contacts to date have been 87 percent completely successful with messages going through on the first run. In only 6 percent of the attempts have the contacts been abandoned because of poor reception.

RATT connections are now being made regularly on a dependable and routine basis with the ships while they are in and between Chinese, Japanese, and Philippine Island outports at distances ranging between 6,000 and 6,500 miles. In one test, the *Philippine Bear* maintained contact from the area around Saigon and Bangkok every day for 7 days at distances of 7,000 to 7,500 miles with completely satisfactory results. This is the same maximum distance at which CW can be depended upon, and in general, a rule of thumb now used is that RATT may be used whenever conditions are satisfactory for CW.

Ultimately, the RATT system (1) will reduce current communication costs, (2) will permit the ship to send ashore tabulated payroll and cargo data which cannot presently be sent and which will make possible certain reductions in accounting costs ashore, (3) will permit two-way communication between the ship and the operating department ashore for the price of one-way communication, and (4) with the future addition of selective calling equipment, will permit unattended service to the ship including remote turn-on, receipt, and acknowledgement.

RADIOTELEPHOTO (FAX)

Telephoto is the fourth communication mode. The telephoto or facsimile service on board ships is used entirely for receipt of weather charts. It is a receive-only system. Auxiliary equipment consists of a converter (which minimizes the detrimental effects of fading, noise, and interference) and a facsimile printer. The printer is of the continuous-roll type and is capable of unattended operation with automatic start and stop as weather charts come in. This facsimile equipment can be connected to



PORTION of the ships main radio room.

any HF receiver and is used to receive 6 to 10 weather charts daily.

TRANSMITTERS

The ship's radio station transmitters are four in number. Two of these are the compulsorily fitted MF main and emergency CW transmitters. They are 250 and 40 watts respectively.

The remaining two transmitters are the voluntarily fitted HF transmitters. One is 1,000 watts, and the other is 250 watts. Each transmitter is able to transmit radiotelegraph, radiotelephone, and radioteletype when properly connected to the appropriate auxiliary equipment. The larger of the two transmitters transmits radiotelephone in the new single sideband suppressed carrier mode while the smaller one uses conventional double sideband full carrier.

RECEIVERS

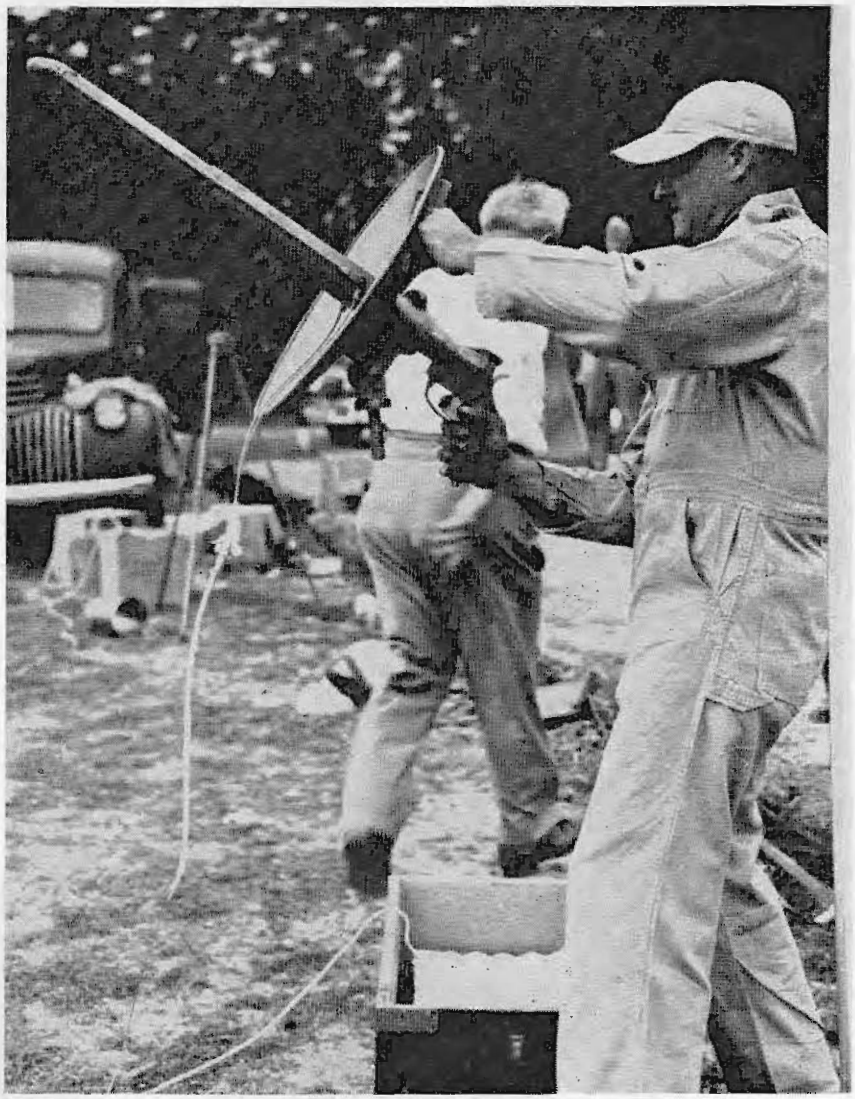
The station's radio receivers are five in number. Two of these are compulsorily fitted main and emergency receivers. The remaining three are the voluntarily fitted HF receivers. These are direct-reading, highly sensitive, stable and accurate receivers of the very latest design. They are capable of doing a superlative job of receiving radiotelegraph, radiotelephone in either single or double sideband mode, radioteletype, and facsimile under adverse conditions. Any of the five receivers can be connected and used with the auxiliary equipment of any mode.

SUMMARY

In summary, the communication facility in the *Philippine Bear* (and in her sister *China Bear*) is unusual. It includes capabilities which are in excess of current practice. It takes maximum advantage of transmitters and receivers and, through a flexible patch scheme, makes each piece of equipment perform several tasks. It includes a "defense in depth" against equipment failures. It is able, within the limitation of a single operator, to handle by means of a wide choice of transmission modes and equipment, any communication mission laid upon it by the Master or the Company, now or in the foreseeable future.

Pacific Far East Line believes that the ability to control and coordinate ship operations is a primary function of profit and loss. The more effective the control, and the closer the coordination, the greater the operating efficiency. As operating efficiency goes up, operating costs go down. However, control and coordination of the ships can be no better than the telecommunication system through which it operates.

IMPULSE-PROJECTED ROCKET TYPE LINE-THROWING APPLIANCES



DEMONSTRATION of method for firing rocket-propelled line-throwing apparatus.

Due to several material failures of impulse-projected rocket type line-throwing appliances during drills on board merchant vessels, the Commandant, U.S. Coast Guard, directed that an investigation be made to determine the cause of the malfunctions. Tests are presently being conducted by the Coast Guard and the manufacturers. Requirements for drills in the use of this equipment were suspended and will remain suspended until further notice. This suspension was broadcast and publicized in USCG Local Notices to Mariners and also in the Weekly Notices to Mariners, Parts I and II, published by the Oceanographic Office. This notice, designated HYDROPAC 38/64, and an identical notice designated HYDROLANT 63/64, is repeated below for information:

> **Requirement for drills on impulse-projected rocket type line-throwing appliance suspended pending investigation of operating complaint due to malfunction. Recommend use only for emergencies pending further notice.**

Until further notice this type of line-throwing appliance should not be used under any circumstance short of an actual emergency.

nautical queries

DECK

Q. If a star has a south declination of 40°, what is the northernmost latitude at which the star may be seen at lower transit, neglecting small corrections such as that for refraction, height, etc.?

A. 50° South.

Q. (a) In what manner would you express the bearing and distance from a point?

(b) The geographical hoist for Point Sur is APPS. Show exactly the hoists you would use to denote a position 10 miles from this point bearing 225°.

A. (a) If position is expressed by bearing and distance from a point, the following sequence is to be adhered to: bearing from, distance from, point.

(b) X flag
2 pennant
1st repeater
5 pennant

1 pennant
0 pennant

A flag
P flag
2d repeater
S flag

Q. What is meant by "floodable length" as applied to a vessel?

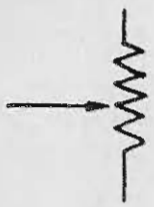
A. The floodable length at a given point in the length of the vessel is the maximum portion of the length of the vessel, having its center at the point in question which can be flooded without the vessel being submerged beyond the margin line. The floodable length at any point in the length of the vessel is determined by a method of calculation which takes into consideration the form, draft, and other characteristics of the vessel, and based on the definite assumptions of permeability set forth by the Regulations.

Q. What does a Marine Chemist's Certificate for a particular cargo tank mean when it reads "Safe for Men—Safe for Fire"?

A. It means that in the judgment of the chemist, the gas content of the atmosphere by volume is within a permissible concentration, and residues in the tank are not capable of producing dangerous gases under atmospheric conditions and in the presence of fire. A current table of "Threshold Limit Values" lists permissible concentrations.

ENGINE

Q. The symbol below is an indication for a/an:
(a) DC voltmeter
(b) Rheostat
(c) Ohmmeter
(d) Plug Fuse
(e) Revolution counter



A. (b) Rheostat

Q. Explain the significance of the terms SSU and SSF in connection with fuel or lubricating oils.

A. The terms SSU and SSF are abbreviations for seconds Saybolt Universal and seconds Saybolt Furol respectively. These abbreviations refer to the viscosity of the oil. The units of these two standards of viscosity are units of time, namely, seconds. The viscosity is determined by finding how long it takes a fixed quantity of oil to flow through an orifice of a viscosimeter at a standard temperature. The SSU units are generally used for the lighter bodied oils, such as diesel and lubricating oils; the SSF units are used for the heavier oils such as Bunker C. Over the usual ranges of viscosity the SSU viscosity is approximately 10 times the SSF viscosity.

Q. How does the specific gravity and the viscosity of the liquid to be purified affect the rate of separation in a centrifugal purifier.

A. In general, the greater the difference in specific gravity between the liquids to be separated and the lower the viscosity of the oil, the greater will be the rate of separation.

Q. If the volume of a unit mass of a perfect gas is doubled and the temperature is kept the same, what will happen to the pressure of the gas? What law is this?

A. If the volume of a unit mass of a perfect gas is doubled and the temperature is kept the same, the pressure will be decreased by one-half. This is known as an example of Boyle's law.

Q. A low power factor in an induction motor with a constant applied voltage:

(a) Requires less current for a given power output

(b) Requires more current for a given power output

(c) Would heat the motor dangerously

(d) Would slow the motor down

A. (b) Requires more current for a given power output

Q. Synchronous motors are most similar in construction to:

(a) DC compound motors
(b) Induction motors
(c) Alternators
(d) DC shunt motors

A. (c) Alternators

Q. A balance relay on a synchronous propulsion motor:

(a) Keeps each phase of the motor in balance

(b) Operates when one phase carries approximately 25% more current than any other

(c) Operates when one phase carries approximately 25% less than any other

(d) Operates when there is approximately 120° between phases in a two-phase motor

(e) Is manually controlled by the engineer on watch

A. (b) Operates when one phase carries approximately 25% more current than any other.

Q. What is a squirrel cage induction motor:

(a) A motor that is compound wound with windings in series

(b) An induction motor in which the primary circuit consists of a squirrel cage winding suitably disposed in the secondary core

(c) An induction motor in which the secondary circuit consists of a squirrel cage winding suitably disposed in slots in the secondary core

(d) A squirrel cage motor consists of a primary conductor that is shunt wound

A. (c) An induction motor in which the secondary circuit consists of a squirrel cage winding suitably disposed in slots in the secondary core.

MARITIME SIDELIGHTS

There were 927 vessels of 1,000 gross tons and over in the active oceangoing U.S. merchant fleet on March 1, 1964, 12 more than the number active on February 1, 1964, according to the U.S. Department of Commerce.

There were 10 Government-owned and 917 privately owned ships in active service. These figures did not include privately owned vessels temporarily inactive. They also exclude 26 vessels in the custody of the Departments of Defense, State, and Interior, and the Panama Canal Company.

There were 12 more active vessels and 4 fewer inactive vessels in the privately owned fleet. One freighter, *Allison Lykes*, and a tanker, *Texaco Georgia*, were delivered from construction. One tanker was transferred foreign. This made a net gain of 1 in the total of 974. Of the 57 privately owned inactive vessels, 4 freighters and 4 tankers were being repaired or reactivated. The others were laid up or temporarily idle.

The Maritime Administration's active fleet remained the same while the inactive fleet decreased by 5. Six ships were sold for scrap and one Navy owned ship was placed in reserve fleet custody. The total Government fleet decreased by 5 to 1,797. The total U.S. merchant fleet decreased by 4 from February 1, 1964, to 2,771.

No new contracts were placed. A freighter and a tanker were delivered. The number of large oceangoing ships under construction in U.S. shipyards decreased by 2 to 49.

⚓ ⚓ ⚓

The Bureau of Customs, older by a month than its parent organization, the Treasury Department, is celebrating its 175th anniversary this year.

⚓ ⚓ ⚓

A total of 10,655 vessels arrived at and departed from the Port of Baltimore last year, the Maryland Port Authority reported. This was an increase of 134 ships over the 10,521 vessels which moved through this Maryland harbor in 1962.

Golden Gate commercial shipping in February—usually a slow period of the maritime year—nevertheless a healthy total of 737 passages or 31 movements greater than February 1963, were recently reported by the Maritime Exchange.

While both intercoastal and coastwise activity was below normal, offshore shipping more than made up for the loss, with 275 vessel arrivals at bay and river ports.

The regional ports moved over their wharves almost 35 million tons of cargo last year, a significant increase over the 1957–61 average of almost 32 million annually.

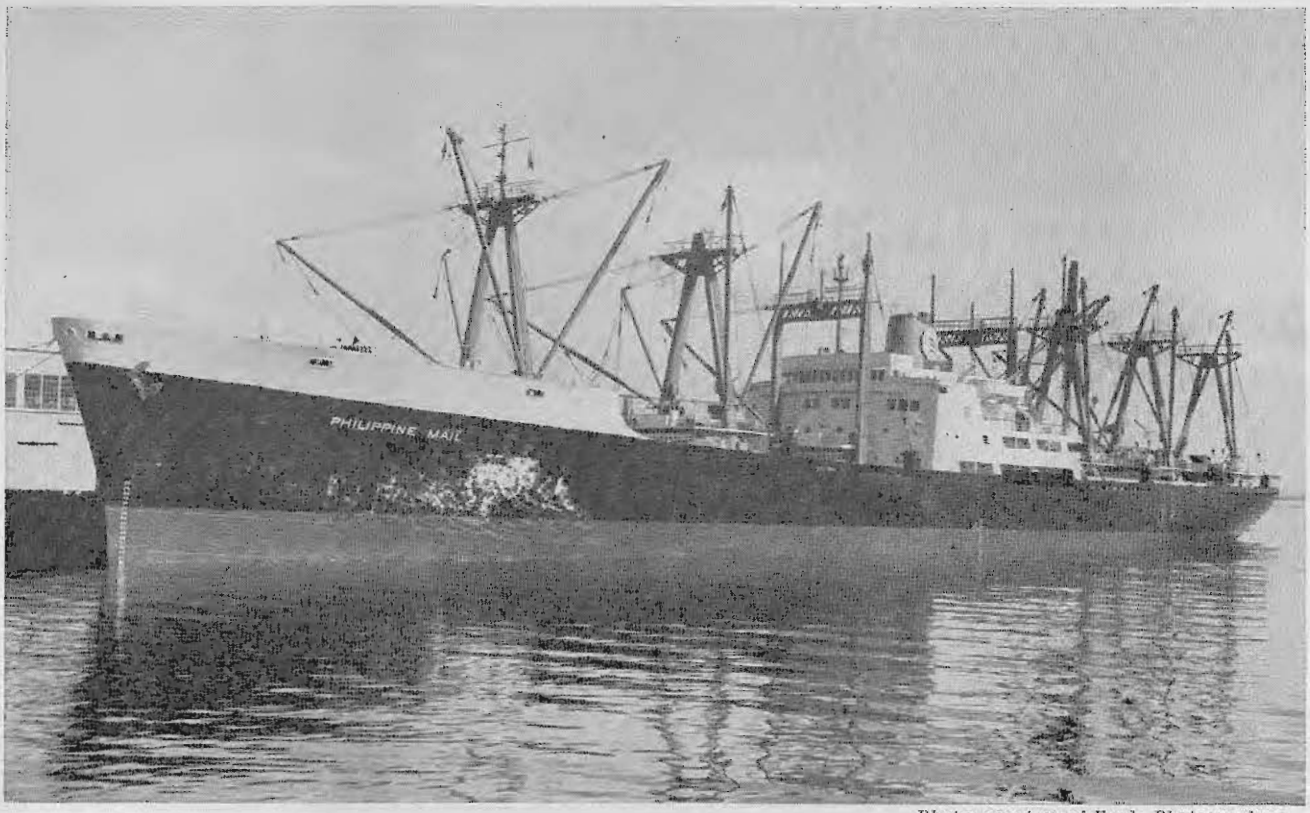
SS *PHILIPPINE MAIL* CITED AS "GALLANT SHIP"

SMILES OF PRIDE and satisfaction are flashed by participants in the awards ceremony as American Mail Line's SS *Philippine Mail* officially received the coveted Gallant Ship Award from the U.S. Department of Commerce. The award is the highest honor that the United States can grant to a merchant vessel, and the SS *Philippine Mail* is only the 16th recipient in history. She was cited for her participation in rescue operations at sea. In addition to the award itself, the Department of Commerce also bestowed medals, ribbons and certificates for crewmembers involved. Shown admiring the plaque are (l. to r.) Walter T. Ridenour, chief mate and Walter W. Dinsmore, Master of the vessel; Congressman Thor Tollefson, who presented the Gallant Ship Award and Lloyd C. Fleming, Pacific Coast Director, Maritime Administration, who presented the individual awards.

The SS *Philippine Mail* of American Mail Line Ltd. has been cited by the U.S. Department of Commerce as a Gallant Ship for her part in rescuing nine crewmembers of the sinking Chinese ship *Hai Ziang* on March 29, 1963.

The Master, 9 members of a lifeboat crew, and 2 other crewmembers of the *Philippine Mail* have been awarded the Merchant Marine Meritorious Service Medal, and each member of the 60-man crew received citation bars for his part in the rescue, at ceremonies held in Seattle, Wash., on February 28, 1964.

The action for which the award was given took place during the morning of March 29, 1963, while the C4 cargo ship *Philippine Mail* was enroute from Naha, Okinawa, to Keelung, Taiwan. Off the northern tip of Formosa, the *Hai Ziang* was sighted dead in the water and listing 45° to port. The weather was bad, with northerly winds of gale force and rough breaking northerly seas, 6 to 8 feet high, and a northerly swell 10 to 12 feet high.



Photos courtesy of Forde Photographers

Realizing that rescue operations would be hampered in these weather conditions, the Master of the *Philippine Mail* maneuvered his ship to windward of the *Hai Ziang* and pumped fuel oil overboard to smooth the breaking seas. After the oil had taken some effect, a lifeboat manned by the Chief Officer and a volunteer crew of eight was launched and set out for the stricken ship.

The trip was extremely hazardous. The propeller of the self-propelled lifeboat was out of the water more than half the time. On the near approach of the boat to the lee quarter of the Chinese ship, five persons jumped overboard. The lifeboat was maneuvered to rescue them, but only three could be found. Realizing the plight of the lifeboat and its exhausted crew, the Master maneuvered his ship to make a lee in order to retrieve the boat.

While the ship was being maneuvered, two persons lashed together were sighted drifting nearby. Two members of the ship's crew, with lines tied to them, went over the side and rescued the two Chinese by securing a line around them. The crew on the *Philippine Mail* then hauled them aboard.

As preparations were being made to make a second attempt to send a lifeboat to the rescue if the weather abated, four persons were observed jumping overboard from the Chinese ship. Again the Master maneuvered his ship close enough for his crewmembers, who were on ladders over the side, to pass lines around the survivors and hoist them on board. One of the survivors who could understand English was requested to urge the remaining Chinese on the stricken ship not to jump overboard, as a rescue ship would arrive shortly. Soon the USS *Weiss* arrived on the scene, and with its power whaleboat removed the remaining seamen from the ship.

The citation awarded the *Philippine Mail* concludes: "The courage, resourcefulness, expert seamanship, and teamwork of her Master, officers and crew in successfully effecting the rescue of nine persons from a sinking ship under extremely hazardous circumstances have caused the name of the *Philippine Mail* to be perpetuated as a Gallant Ship."

The *Philippine Mail* is the 16th ship to be named a Gallant Ship, and the seventh to receive the award for peacetime actions.

The award is made by the Maritime Administration of the U.S. Department of Commerce in accordance with Public Law 795 of the 84th Congress, which authorizes awards to any United States or foreign ship which participates in outstanding or gallant action in marine disasters or other emergencies for the purpose of saving life or property. The awards are authorized by the Secretary of Commerce with the concurrence of the Secretary of the Treasury.

The plaque awarded to the ship is a bronze medallion designed by the artist Jo Davidson showing a ship steaming full ahead, below which is a bronze plate detailing the action resulting in the award.

Members of the *Philippine Mail* crew receiving awards are:

MERCHANT MARINE MERITORIOUS SERVICE MEDAL WINNERS

Walter W. Dinsmore, Master, Seattle, Wash.
Walter T. Ridenour, Chief Mate, Seattle, Wash.
Donald F. Hansen, Third Mate, Seattle, Wash.
Willis W. Wilson, Able-bodied Seaman, Portland, Oreg.
Donald B. Dayrel, Able-bodied Seaman, Kent, Wash.
Norman Dyrdal, Deckman, Berkeley, Calif.
Leroy A. Dhooge, Able-bodied Seaman, San Francisco, Calif.
Alfred Kroll, Able-bodied Seaman, Bellevue, Wash.
Harold A. Grim, Able-bodied Seaman, Seattle, Wash.
John Azevedo, Wiper, Seattle, Wash.
Robert S. Zuhlke, Wiper, Bartlesville, Okla.
William E. Meagher, Chief Steward, Lomita, Calif.

Courtesy Baker & Stimpson Advertising

SUMMARY OF MERCHANT MARINE COUNCIL PUBLIC HEARING HELD 23 MARCH 1964, AT WASHINGTON, D.C.

The Commandant, United States Coast Guard, announced the general acceptance of the recommendations of the Merchant Marine Council regarding proposals to revise the navigation and vessel inspection regulations. The Merchant Marine Council held its Annual Session on 23–25 March 1964.

The proposals to revise the navigation and vessel inspection regulations were set forth in three volumes of the Merchant Marine Council Public Hearing Agenda, CG–249 and a supplemental public hearing agenda dated 13 February 1964, as well as the oral and written comments submitted in conjunction with the public hearing held 23 March 1964.

Indicative of the interest in the proposed regulations was the attendance of 117 persons representing maritime and allied interests.

The proposals considered were:

1. Bulk dangerous cargoes.
2. Qualified members of engine department rating list and tankerman requirements.
3. Load Lines.
4. Inspection and Certification of Vessels.
5. Marine Engineering.
6. Electrical Engineering.
7. Requirements and Specifications for Lifesaving Devices, Extinguishers, and Backfire Flame Arresters.
8. Dangerous Cargoes.
9. Security of Vessels and Waterfront Facilities.
10. Structures on Outer Continental Shelf and Adjacent Waters.
11. Rules of the Road.
12. Implementing 1960 Safety of Life at Sea Convention (SOLAS).
13. Combustible Gas Detectors on Tank Vessels.
14. Renewal of Operators' and Ocean Operators' Licenses—Exercise on Rules of the Road.
15. Proper Lookout.
16. Midsummer Seasonal Load Lines for Great Lakes.

The Merchant Marine Council in Executive Session considered the oral comments and the additional 531 written comments submitted, containing over a thousand suggestions for changes in the proposals. The proposals as accepted by the Merchant Marine Council will be submitted to the Commandant, United States Coast Guard, for approval and publication in the Federal Register as soon as possible.

Many objections to the proposals regarding lights and fog signals on structures on the Outer Continental Shelf and adjacent waters, Item 10, were received. An additional 120 days was granted for the submission of further written comments. This postponement was granted in order that informal discussions may be held with all parties concerned and decision made regarding whether or not changes should be authorized. The present requirements will continue in effect.

The proposals to implement the 1960 Safety of Life at Sea Convention and comments received were considered, but final action was postponed until after the announcement is published stating when the 1960 Convention will become effective. Pending this announcement, written comments may be submitted regarding the proposals in Item 12, as set forth in Volume II of the Agenda. The Council tentatively agreed to these proposals which are in addition to the changes considered necessary to implement the Convention; however, final action was postponed until it is known when the Convention becomes effective. The proposal considered most controversial deals with the use of inflatable liferafts on tank vessels. After consideration of the information submitted, the Council recommended acceptance of the proposal to require inflatable liferafts on tank vessels in conjunction with the implementation of the 1960 Convention. The proposals for the Cargo Ship Safety Construction Certificate will be studied further and informal discussions will be held with interested organizations before determining procedures for issuance of such certificates in the United States. A number of comments objected to the increased requirements for fireproof construction on vessels. These changes are required by the Convention and are considered to be more stringent than existing requirements.

The bulk dangerous cargo proposals and the proposals for manning and the qualifications for personnel handling such cargoes, in Item 1, had been the subject at a number of informal meetings with interested organizations prior to the public hearing. As a result many written comments received reflected the views expressed as a consensus of opinion of those participating in such meetings. Over 130 written comments were submitted for consideration. The Merchant Marine Council accepted many of the technical changes proposed with respect to the construction of tank barges and independent cargo tanks. The Council recommended deferral of those proposals regarding manning, personnel qualifications, and placarding for barges carrying such commodities, directing further study and consultations by an ad hoc committee with the industry to develop acceptable regulations consistent with the needs of safety. An additional 120 days were authorized for the submission of comments. The Council will then consider the comments and revised proposals and submit appropriate recommendations to the Commandant. For these matters, during the interim, the existing emergency regulations will continue to remain in effect. The remaining proposals contained in Item 1, with minor modifications as suggested in comments received, were accepted by the Council and recommended for publication with an effective date of 1 July 1964.

The proposals regarding authorization to use intrinsically safe equipment and circuits, Item 5h, were considered and permission granted to allow submission of written comments for an additional 90 days. The comments were not opposed to the use of intrinsically safe equipment, but rather to the wording used which many felt was too restrictive. Final actions were postponed pending evaluation of information received, and to permit further informal discussions with interested parties.

Consistent with comments received, the proposals regarding the use of a pressure gauge or device on dry chemical extinguishers carried in small motorboats, Item 7d, was deferred for 90 days, during which additional written comments may be submitted. Because a special committee of the National Fire Protection Association and interested parties was scheduled to meet in May to consider this type of extinguisher, the Council recommended postponement of final actions until after this scheduled May meeting, which will allow for evaluation of the findings and recommendations of the NFPA prior to recommending actions to the Commandant in this matter.

The proposals regarding power-operated equipment on waterfront facilities, Item 9b, were commented on extensively, and many comments discussed problems of maintenance and the difficulties in upgrading existing equipment to the proposed standards. The Council's attention

was also directed to a special committee of the American Standards Association studying longshoring and safety on the docks, which will meet again in the near future, when it is anticipated this study will be completed and available for evaluation. It is understood that proposed standards of maintenance of power-operated equipment are also being developed. The Council recommended final actions to be postponed indefinitely. In addition, the Council suggested that if many changes in proposals are desired, a revised draft of proposals be published in order to give all parties concerned an opportunity to consider further the standards which are deemed desirable in improving safety practices.

The proposals regarding proper lookouts for inspected and certificated vessels, Item 15, were objected to for many reasons. The Council recommended that final actions be postponed indefinitely.

The proposals regarding qualified members of engine department rating list and pumpman/tankerman requirements, Item 2, were commented on and in view of objections raised to removing ratings from the list, the Council recommended that a study be made of the requirements for "ratings" issued by the Coast Guard. The Council postponed indefinitely action on the proposals presented in the Agenda.

The Council recommended withdrawing Items 6g, sound-powered telephone and voice tube systems; 8a, hatch covers; and 9a, hot work on waterfront facility or vessel; in order that these subjects may be studied further.

The Council accepted certain changes in the following proposals and recommended their approval as revised: Items 1a and 1b, bulk dangerous cargoes (all except those portions concerning qualifications for personnel, manning, labeling and placarding); 5, marine engineering; 6c, multispeed motors, overcurrent protection for motors, direct-current exciters, ground detection, and hookup wire; 7a, special purpose water safety buoyant devices to be limited to use on motorboats of Classes A, 1, and 2 not carrying passengers for hire, and as excess equipment for motorboats required by existing regulations to carry approved life preservers; 7b and 7c, unicellular polyethylene foam buoyant vest; 8f, explosives; 8g, inflammable solids and oxidizing materials; 8i, hazardous materials; 8j, military explosives; 9d, advance notice of arrival of vessel; 11a, towing of barges—Inland Waters; 13, combustible gas detectors on tank vessels; and 14, renewal of operators' and ocean operators' licenses.

The Council accepted certain proposals and recommended their adoption as written in the Agenda: Item 1c, vessels carrying liquid chlorine in bulk; 3, load lines; 4, inspection and certification of vessels; 6a, electric power-operated watertight doors; 6b, power supplies for electric power-operated watertight doors; 6d, receptacle outlets; 6e, feeder and branch circuit cables; 6f, emergency electrical systems; 7e, backfire flame control on motorboats; 8b, list of explosives and other dangerous articles and combustible liquids; 8c, special stowage plan for recording dangerous cargo aboard vessels; 8d, compatibility of dangerous cargoes within vehicles, vans or portable containers; 8e, portable magazines for stowage of explosives; 8h, corrosive liquids; 9c, ammonium nitrate products handled and stored on waterfront facility; 11b, towing of barges—Western Rivers; and 16, midsummer seasonal load lines for Great Lakes.

A number of comments were received dealing with subjects not on the published Agenda or which extended proposals far beyond their original proposed purposes. The Administrative Procedure Act does not permit consideration of subjects which have not been previously announced. Therefore, these comments were considered as "petitions" and referred to cognizant Coast Guard officials for consideration.

THE MERCHANT MARINE COUNCIL

Numerous Federal laws pertaining to maritime safety prescribe that the Commandant, United States Coast Guard, shall promulgate regulations to implement those laws. Included are those laws which govern the construction, inspection, manning, equipment and operation of certain commercial vessels; the equipment, operation and numbering of certain other craft; the rules of the nautical road; also the safety requirements relative to offshore drilling platforms, rigs and associated vessels.

To advise and assist the Commandant in meeting these responsibilities which primarily concern the safety of the public and those employed in the maritime field on board vessels, having due regard for the impact of such regulations upon technological advancement and industrial progress, a "Merchant Marine Council" was first established in 1942.

The Merchant Marine Council is a deliberative body to advise the Commandant as to policy in connection with matters affecting maritime safety. It has no operating authority. The Council makes recommendations to the Commandant on proposed legislation, rules and regulations governing the construction, navigation, inspection, equipment, manning, and operation of certain privately owned vessels; the rules of the nautical road; and the safety requirements applicable to offshore drilling rigs, platforms and associated vessels. The Council recommends to the Commandant what types of equipment merit the approval required by law. The Council provides a forum where maritime safety problems concerning the public, industry, labor and others may be considered informally. The Council conducts Public Hearings required by law or when so directed by the Commandant. The Council is composed entirely of Coast Guard officials. In addition to those holding specific offices at Coast Guard Headquarters, others are designated by the Commandant, including two Coast Guard District Commanders and three Chiefs, Merchant Marine Safety Divisions in District Offices.

NYLON LINE

A recent casualty occurred during an attempt to refloat a grounded cabin cruiser with the aid of a nylon towing line. When a strain was placed on the line, the towing cleat on the cruiser suddenly pulled free and became a lethal projectile under the impetus of the violently recoiling line. The cleat struck a man, entering the left side of his back. Death was instantaneous.

Nylon line has several elements that make it an excellent towing hawser. Its elasticity, for example, eases the strain between the towing vessel and the tow just as an automatic towing engine does. This very characteristic, however, makes it extremely dangerous. It will recoil like a rubberband when suddenly released from strain. Remember that a nylon line can become a nylon lion under strain, and it just doesn't pay to be careless in the presence of lions.

"Leave it for the sweeper" used to be a pretty snappy comeback when someone dropped a dollar bill—but that's about all you should consider leaving for the sweeper.

Slips and falls—often caused by pencils, papers, water, and grease dropped on floors and stairs—are the Nation's second largest cause of work injuries, according to the National Safety Council.

If you drop or spill something, pick it up or wipe it up immediately. Leaving it for the sweeper may result in the injury of a shipmate.

NAVIGATION AND VESSEL INSPECTION CIRCULAR NO. 1–64

February 20, 1964.

Subj: Amendment to "Non-self-propelled inland dredges, barges and similar non-self-propelled craft of 100 gross tons and over; inspection of as seagoing barges when on voyages on the high seas for change of place of employment", Navigation and Vessel Inspection Circular No. 9–63.

1. *Purpose.* To promulgate additional information regarding inspection of subject vessels.

2. *Directives Affected.* Navigation and Vessel Inspection Circular No. 9–63 is supplemented hereby.

3. *Action.* The first paragraph, Domestic Voyage, paragraph 3c, is amended by adding the following sentence:

> Non-self-propelled dredges may be permitted to carry spare parts for their own machinery without having such spare parts considered as cargo, if, in the opinion of the Officer in Charge, Marine Inspection having jurisdiction, the quantity and weight of these spare parts are reasonable.

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 March 12, 1964 (CGFR 64–14), March 21, 1964 (CGFR 64–4), and March 27, 1964 (CGFR 64–13). Copies of these documents may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D.C., 20402.]

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 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 February 15, 1964 to March 15, 1964, is as follows:

Lunkenheimer Co., Cincinnati 14, Ohio, HEAT NOS. 680, 681, 682, 683, 684, 685, 686, 687, 688.

AFFIDAVITS

The following affidavits were accepted during the period from February 15, 1964 to March 15, 1964:

Livezey Engineering & Mfg. Co., Div. of Tillotson Rubber Co., 205 Rosemary Street, Needham Heights 94, Mass., FITTINGS.[1]

The Victor Screw Machine Co., 140 South Erie Street, Toledo 2, Ohio, BOLTING.

Henry G. Klett & Son, Inc., 115 East 129 Street, New York 35, N.Y., VALVES.

Cla-Val Co., P.O. Box 1325, Newport Beach, Calif., 92623, VALVES & FITTINGS.

Fluid Circuits Co., P.O. Box 164, Ambler, Pa., VALVES.

Hiltmar Developments, Inc., 1116 Southeast 14th Terrace, Deerfield Beach, Fla., FITTINGS.[2]

Ladish Co., Kentucky Div., P.O. Box 159, Cynthiana, Ky., 41031.[3]

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[1] Acceptance applies to "Q.P." slip type expansion joints for use in Class II piping systems only.

[2] For 6" and 8" coupling flange installations only as recommended by manufacturer, and for pressures not exceeding 225 psi.

[3] The change of address will be inserted in the revised edition of CG–190.

ACCEPTABLE COVERED STEEL ARC WELDING ELECTRODES

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

Distributors and/or manufacturers	Brand	AWS Class	Operating positions and electrode sizes (inches)				
			5/32 and smaller	3/16	7/32	1/4	5/16
Lincoln Electric Co., Cleveland, Ohio	Jetweld 3	E7024	2	2	2	2	2
The McKay Co., York, Pa	McKay 6010 I.P	E–6010	1	1	1	1	1
Do	McKay 6011 I.P	E–6011	1	1	1	1	1
The Babcock & Wilcox Co., 161 East 42d Street, New York 17, N.Y.	B&W Croloy E–308–15	E308–15	1	2			
Do	B&W Croloy E–347–15	E347–15	1	2			
Do	B&W Croloy E–310–15	E310–15	1	2			
Do	B&W 815	E8015–03	1				
Do	B&W 16–82	E16–8–215	1	2			
Do	B&W Croloy 2A (2 Cr ½ Mo)	E8015–84L	1				
The following are welding electrodes will be deleted in the revised edition of CG–190:							
The Babcock & Wilcox Co., 161 East 42d Street, New York 17, N.Y.	B&W 20	E6020	2	2		2	3
Do	B&W 75 HT (½ Cr ½ Mo).[2]	E7020–B1		2		2	
Do	B&W 720 (½ Mo) [2]	E7020–A1	2	2		2	3
Do	B&W 915 (.55 mo 45 ni 1.45 Mn)	E9015–G	1	2			
Do	B&W Croloy 2A (2 Cr ½ Mo)	E9015–B4L	1	2			
Do	B&W Croloy 19–9	E308–15	1	2			
Do	B&W Croloy 19–9CB	E347–15	1	2			
Do	B&W Croloy 25–20	E310–15	1	2			

MERCHANT MARINE SAFETY PUBLICATIONS

The following publications that are directly applicable to the Merchant Marine 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 parentheses 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 Examination for Merchant Marine Deck Officers (7–1–63).
108	Rules and Regulations for Military Explosives and Hazardous Munitions (8–1–62).
115	Marine Engineering Regulations and Material Specifications (3–1–63), F.R. 8–20–63, 10–26–63.
123	Rules and Regulations for Tank Vessels (1–2–62). F.R. 5–2–62, 9–11–62, 2–6–63, 4–4–63, 5–30–63, 8–20–63, 9–6–63, 10–8–63, 10–26–63, 12–13–63.
129	Proceedings of the Merchant Marine Council (Monthly).
169	Rules of the Road—International—Inland (6–1–62), F.R. 1–18–63, 5–23–63, 5–29–63, 7–6–63, 10–2–63, 12–13–63.
172	Rules of the Road—Great Lakes (6–1–62). F.R. 8–31–62, 5–11–63, 5–23–63, 5–29–63, 10–2–63, 10–15–63.
174	A Manual for the Safe Handling of Inflammable and Combustible Liquids (7–2–51).
175	Manual for Lifeboatmen, Able Seamen, and Qualified Members of Engine Department (9–1–60).
176	Load Line Regulation (7–1–63).
182	Specimen Examinations for Merchant Marine Engineer Licenses (7–1–63).
184	Rules of the Road—Western Rivers (6–1–62). F.R. 1–18–63, 5–23–63, 5–29–63, 9–25–63, 10–2–63, 10–15–63.
190	Equipment Lists (4–2–62). F.R. 5–17–62, 5–25–62, 7–24–62, 8–4–62, 8–11–62, 9–11–62, 10–4–62, 10–30–62, 11–22–62, 11–24–62, 12–29–62, 1–4–63, 1–8–63, 2–7–63, 2–27–63, 3–20–63, 4–24–63, 6–11–63, 6–15–63, 6–22–63, 6–28–63, 8–10–63, 10–16–63, 11–23–63, 12–3–63, 2–5–64, 2–11–64, 3–12–64, 3–21–64, 3–27–64.
191	Rules and Regulations for Licensing and Certificating of Merchant Marine Personnel (7–1–63). F.R. 9–18–63, 12–13–63.
200	Marine Investigation Regulations and Suspension and Revocation Proceedings (10–1–63).
220	Specimen Examination Questions for Licenses as Master, Mate, and Pilot of Central Western Rivers Vessels (4–1–57).
227	Laws Governing Marine Inspection (6–1–62).
239	Security of Vessels and Waterfront Facilities (8–1–61). F.R. 11–3–61, 12–12–61, 8–8–62, 8–31–62, 11–15–62, 1–30–63, 3–27–63, 5–29–63, 6–4–63, 10–9–63, 1–30–64.
249	Merchant Marine Council Public Hearing Agenda (Annually).
256	Rules and Regulations for Passenger Vessels (1–2–62). F.R. 5–2–62, 9–11–62, 12–28–62, 4–4–63, 5–30–63, 8–20–63, 9–6–63, 10–26–63.
257	Rules and Regulations for Cargo and Miscellaneous Vessels (11–1–62). F.R. 2–1–63, 2–6–63, 3–13–63, 4–4–63, 5–30–63, 8–20–63, 9–6–63, 10–2–63, 10–26–63.
258	Rules and Regulations for Uninspected Vessels (9–1–61). F.R. 1–20–62, 4–24–62, 5–2–62, 9–11–62, 5–14–63, 9–6–63.
259	Electrical Engineering Regulations (12–1–60). F.R. 9–23–61, 9–30–61, 5–2–62, 9–11–62, 8–20–63, 9–6–63.
266	Rules and Regulations for Bulk Grain Cargoes (5–1–62). F.R. 9–11–62, 12–24–63.
268	Rules and Regulations for Manning of Vessels (2–1–63).
269	Rules and Regulations for Nautical Schools (5–1–63). F.R. 10–2–63.
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.
293	Miscellaneous Electrical Equipment List (6–1–62).
320	Rules and Regulations for Artificial Islands and Fixed Structures on the Outer Continental Shelf (10–1–59). F.R. 10–25–60, 11–3–61, 4–10–62, 4–24–63.
323	Rules and Regulations for Small Passenger Vessels (Not More Than 65 Feet in Length) (6–1–61). F.R. 9–11–62, 10–5–62, 12–28–62, 1–22–63, 9–6–63.
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, D.C., 20402. 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 in the table of changes below. Regulations for Dangerous Cargoes, 46 CFR 146 and 147 (Subchapter N), dated January 1, 1964, are now available from the Superintendent of Documents, price: $2.50.

CHANGES PUBLISHED DURING MARCH 1964

The following have been modified by Federal Registers:

CG–190. Federal Register, March 12, 21 and 27, 1964.

U.S. GOVERNMENT PRINTING OFFICE:1964

SS *AMERICAN LEADER*

IN RECOGNITION of its outstanding 4-year safety record for the period 1959/1962, the United States Lines' Bronze Safety Plaque, the American Merchant Marine Institute's "JONES F. DEVLIN AWARD" and the National Safety Council's CERTIFICATE OF COMMENDATION were awarded to the vessel for the second time.

Presentation of the Awards was made by Captain W. L. Howard, Asst. Marine Superintendent, to Captain W. P. Lawton, Master, who accepted on behalf of the crew. On hand at the ceremony were, above, left to right: (kneeling) Tee Hue Toon, Messman; Lawrence Fong, AB; M. Coutinho, Wiper, and S. K. Polechrinos, AB. (Standing) Lee Chin, 2d Ck/Baker; Wainam Jung, Chief Steward; K. A. Gorrison, 2d Asst. Engineer; Captain Lawton, Captain Howard; Roy Roberts, Chief Officer; James Sutton, AB; E. A. Allen, 2d Officer; Herman Molzahn, 3d Officer; M. M. Berg, 3d Officer; R. L. Peay, Jr., Lic. Jr. Engineer; D. Curtis, OS; H. Smith, Jr., Deck Util; D. Bowe, Wiper; and V. Maldonado, AB.

SS *PIONEER MOOR*

ANOTHER FINE safety record was recognized in a shipboard ceremony when the U.S.L. Bronze Plaque, the A.M.M.I. "JONES F. DEVLIN AWARD" and the N.S.C. CERTIFICATE OF COMMENDATION were given to the crew of the SS *Pioneer Moor*, for their "no-accident" safety record in 1961/62.

The presentation was made by R. J. Weigele, Asst. Generol Operating Manager, and on hand to receive it were, left to right: Captain K. F. Sutherland, Marine Superintendent; G. Yingling, Chief Engineer; L. Quinones, OS; A. Urizar, Wiper; N. Jackson, Wiper; Mr. Weigele; M. Pacarien, OS; E. G. Luna, AB; S. Guese, BR; Phillip Lee, Messman; Loy Nee Twee, Messman; Eng Kok, Messman; Tom Sing, Chief Steward; Wing Tak, Cook/Baker; E. Rogaski, Engine Cadet; R. Griffin, Engine Cadet; Captain W. McManus, Master; H. S. Kaminski, 3d Officer; R. L. Beech, 2d Officer, and C. Quentin, First Assistant Engineer.