PROCEEDINGS

OF THE MERCHANT MARINE COUNCIL

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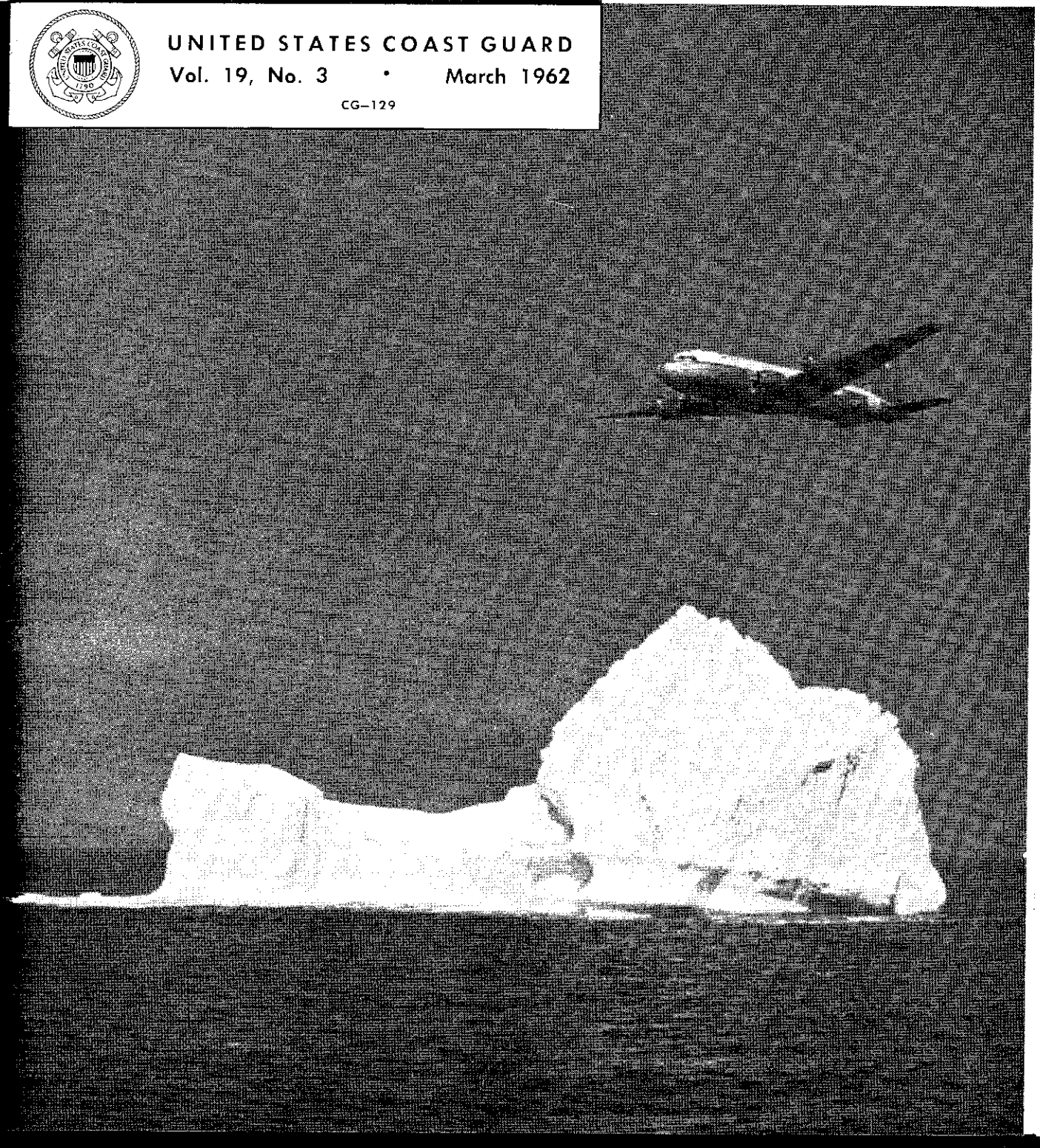

PROCEEDINGS

OF THE

MERCHANT MARINE COUNCIL

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CONTENTS

ADMIRAL HIRSHFIELD RECEIVES DISTINGUISHED SERVICE MEDAL

SECRETARY OF THE TREASURY Douglas Dillon presents retiring Vice Admiral James A. Hirshfield with a Distinguished Service Medal for "exceptionally meritorious service" as Chief of Staff and as Assistant Commandant of the U.S. Coast Guard. The admiral's retirement on February 1, 1962, brought to a close a brilliant 38-year career in the Coast Guard. Prior decorations awarded Admiral Hirshfield include the Navy Cross and the Order of the Purple Heart.

The admiral "retired" only temporarily. On February 5, 1962, he undertook new duties as vice president of the Lake Carriers' Association, an organization comprising about 85 percent of the major bulk shippers in the Great Lakes area. On April 1 he will succeed to the presidency of the association, a position now held by Vice Adm. Lyndon Spencer, USCG (Ret.). As president of the association, he will direct the activities of an organization which since 1885 has been promoting greater safety and efficency among shipping companies utilizing the Great Lakes waterways.

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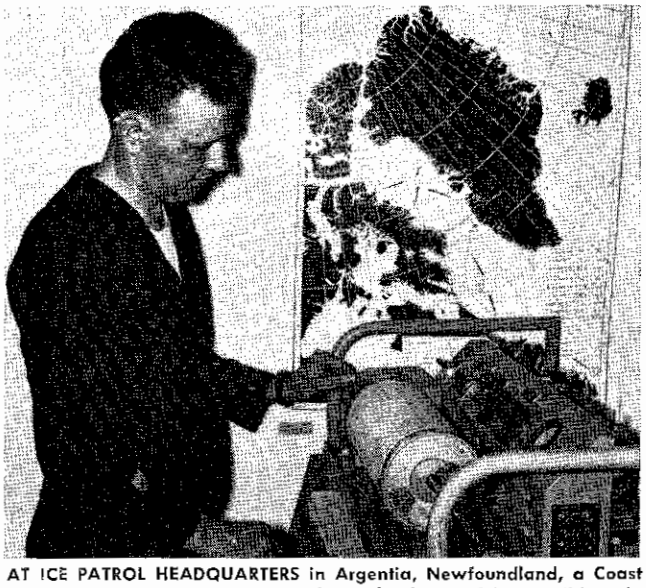
INTERNATIONAL ICE PATROL, 1962

OAST GUARD LIFEBOAT crew shown in the vicinity of an iceberg off e southern tail of the Newfoundland Grand Banks. The berg is pproximately 500 feet long, 200 feet above water, and extends pproximately twice that distance beneath the surface.



AT ICE PATROL HEADQUARTERS in Argentia, Newfoundland, a Coast Guard operator broadcasts radio facsimile charts of ice conditions in the North Atlantic. This recently installed system provides mariners with a direct picture of ice conditions observed in contrast to the long verbal bulletins of the ordinarily used system of broadcasting.

NCE LATE FEBRUARY ships and rcraft of the U.S. Coast Guard are nce again keeping a sharp lookout r icebergs and other floating dan-ers in the shipping lanes of the North tlantic. This is the 44th Interna-onal Ice Patrol carried out by the oast Guard since 1913.

Preliminary aerial reconnaissance as been under way since December 5. 1961.

EXPERIMENTAL BUOYS

This year's Patrol features the ex-erimental use of oceanographic uoys which serve as floating elec-ronic laboratories for automatically ecording significant oceanographic ata. Three buoys will be placed in e Labrador Current, near the East-rn Slope of the Grand Banks, ewfoundland, to record intensity, rength, direction, and volume of the rrent, water temperatures, and wind locities, as well as the heat output f the southward-flowing current. his latter information will permit e Coast Guard to approximate the nflow of heat and its bearing on the roduction and distribution of ice-ergs. With further development, his system should make it possible to orecast the approximate severity of e conditions within a coming season.

The Coast Guard's oceanographic essel, the *Evergreen*, will figure rominently in these investigations. ince 1946, this cutter has been con-ducting oceanographic investigations of northern waters.

As in the past several years, the greater part of ice reconnaissance will be carried out by Coast Guard aircraft. They will be assisted by the Coast Guard cutters *Acushnet* and *Tamaroa* which will be maintained in 72-hour standby status. Heading the 1962 Patrol is Captain Ross P. Bullard, USCG, with headquarters at Argentia, Newfoundland, whose command will include aircraft from the Coast Guard Air Detachment at Argentia, Newfoundland. The cutters will be used when heavy fog limits aerial ice reconnaissance or if it becomes necessary for the cutters to stand by icebergs in the steamer lanes.

TITANIC DISASTER

The Patrol, one of the world's most successful ventures in peaceful international collaboration, was born in 1914, 2 years after the tragic sinking of the luxury liner *Titanic* on her maiden voyage after colliding with an iceberg. In this great sea tragedy, which occurred nearly 50 years ago on April 12, 1912, the *Titanic* went down with 1,513 passengers out of a total of 2,224 aboard. Her passenger list was a veritable "Who's Who" of notable personalities of the time.

But the tragedy of the *Titanic* was not in vain. Its enormity shocked the maritime nations into greater awareness of the problems of safety of life at sea and the need for more effective measures to achieve this goal. In 1913, shortly after the *Titanic* disaster, the Coast Guard cutters *Miami* and *Seneca* carried out a patrol. Then in 1914, the International Ice Patrol was organized under an international convention which was subscribed to by all major maritime powers using the North Atlantic shipping lanes. Except for intervals during World Wars I and II, the Patrol has been maintained continuously since 1914.

Currently, the Patrol is subsidized by those countries which are signatory to the treaty and whose vessels use the North Atlantic sea lanes. The 17 signatory nations include Belgium, Canada, Denmark, France, Greece, Italy, Netherlands, Norway, Sweden, the United Kingdom, the United States, Spain, the Federal Republic of West Germany, Liberia, Panama, Japan, and Yugoslavia.

In 1962, the Patrol will devote itself primarily to ascertaining the position and drift of icebergs and field ice which endanger, or may soon endanger, shipping in the vicinity of the Grand Banks of Newfoundland. It will also determine the southeastern, southern, and southwestern limits of that ice, and will disseminate this information for the guidance and warning of shipping. Other duties will include collection of ice, weather and sea temperature reports from shipping and aircraft traversing the Ice Patrol area, and evaluation of all ice infor-

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mation in the light of meteorologic and oceanographic conditions. This information will be communicated by U.S. Coast Guard Radio Argentia (NIK) to shippers in the Grand Banks area.

RADIO FACSIMILE TO BE USED

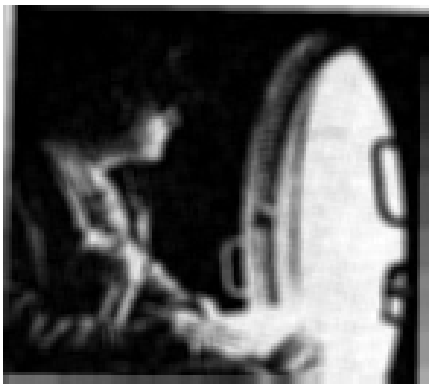
The broadcasting of radio facsimile charts of ice conditions in the North Atlantic has proven feasible and this year will be continued on an even wider scale. This has been made possible by the assignment of additional frequencies for radio transmission. The system provides the mariner directly with a chart of ice conditions observed.

IMPORTANCE OF ICE, VISIBILITY, SEA TEMPERATURE, AND WEATHER REPORTS FROM SHIPPING

Each ice bulletin by NIK will contain a request for all ships to report any ice sighted, and when in the area between latitudes 39° N. and 49° N. and longitudes 42° W. and 60° W., to report every 4 hours ship's position, course, speed, visibility, sea temperature, and weather conditions. These reports by shipping are of the utmost importance to the International Ice Patrol. During periods of low visibility or low ceilings when aerial ice observation is rendered ineffective, ice reports by shipping are invaluable in aiding the Ice Patrol to relocate drifting ice and to keep the position of that ice, as reported in the ice bulletins, up to date. The visibility reports are of considerable value in helping Coast Guard air observers to avoid areas of poor visibility and to concentrate on more favorable areas. Visibility reports are also useful in deciding whether or not special warnings on ice conditions should be broadcast. Sea temperatures reported to the Ice Patrol are used to construct isotherm charts employed in estimating ice melting rates and detecting shifts in the branches of the Labrador Current. Wind data are useful in estimating set and drift of ice, especially field ice, and in forecasting weather for the purpose of planning ice observation flights.

SPECIFIC INFORMATION VITAL

In reporting ice to NIK, it is important that certain information be furnished in order that the report be evaluated correctly, especially from the standpoint of ruling out occasional erroneous reports and obviating unnecessary searches and warnings to shipping. The information desired is (1) the type of ice sighted, i.e., berg, growler, or field ice (NOTE: If a radar target is reported which is believed to be ice but is not actually sighted visually, it should be reported as a radar target, NOT as berg, growler, or field ice); (2) the position of the ice (not the position of the reporting ship); (3) the sea temperature at point of closest approach to the ice; and (4) weather and visibility conditions.



AN OBSERVER keeps watch for icebergs at the window of a Coast Guard plane on Ice Patrol.

In view of the heavy reliance placed by Commander, International Ice Patrol, on reports of ice, visibility, sea temperatures, and weather from shipping, all shipmasters are strongly urged to make these reports. It is realized that ships with but one radio operator may find it impracticable to report every 4 hours as requested. It is therefore suggested that these ships prepare 4-hourly reports but delay transmitting them until the radio operator comes on watch. A late report is much better than no report.

COMMUNICATIONS

Ice bulletins will be broadcast twice daily, at 0048 and 1248 GMT, by U.S. Coast Guard Radio Argentia (NIK) on 155 kc/s, 5320 kc/s, and 8502 kc/s. Each broadcast will be preceded by the general call CQ on 500 kc/s with instructions to shift to receive on 155 kc/s, 5320 kc/s, or 8502 kc/s. After shifting to these frequencies, NIK will transmit test signal and the International Ice Patrol radio call sign NIK for about 2 minutes to facilitate tuning. Transmission of the bulletin will then follow immediately at 15 words per minute and repeated at 25 words per minute. Prescribed radio silent periods will be observed.

When deemed advisable, special ice bulletins may be broadcast in addition to those regularly scheduled. Such special ice bulletins will be preceded by the international safety signal TTT.

Ice conditions will be transmitted daily by facsimile at 1330 GMT on 5320 and 8502 kc/s at a drum speed of 60 RPM. All ships receiving these transmissions are requested to mail the facsimile chart copied to the Commander, International Ice Patrol, Navy 103, FPO, New York, N.Y., for evaluation purposes.

Duplex operation will be used between NIK and merchant ships for general radio communications, such as requests for special information, reports made by merchant ships of ice sighted, sea temperatures, visibility and weather conditions.

Merchant ships may call NIK on 500-kc/s and 8-mc maritime calling band at any time; also 12-mc band during daylight hours. Ships work 425, 448, 454, 468, or 480 kc/s or their assigned HF working frequency. NIK will work 427 kc/s, 8734 kc/s, or 12,718.5 kc/s. The surface patrol vessel, radio call sign NIDK, when on station will relay between NIK and ships when necessary. There is no charge for these services.

Throughout the ice season, U.S. Navy Radio Washington (NSS) will broadcast twice daily ice reports as furnished by Commander, International Ice Patrol, at 0430 and 1630 GMT.

Further notice will be given as to the exact date when the broadcast of ice bulletins and operations of the International Ice Patrol will commence.

Until the inauguration of International Ice Patrol services, all reports of ice sightings should be addressed to the U.S. Navy Hydrographic Office, Washington, D.C., and thereafter to Commander, International Ice Patrol (NIK).

Aerial ice reconnaissance and dissemination of ice information is also performed for shipping by the Canadian Department of Transport. This organization, during the period from 10 December 1961 to 30 June 1962, will operate mainly in the Gulf of St. Lawrence and approaches, and the coastal waters of Newfoundland to the entrance of Hudson Bay. Details of these services are available in Guidance to Merchant Ships Navigating in the Gulf of St. Lawrence, published annually by the Marine Operations Branch, Department of Transport, Canada. For details on the broadcasts of ice information by Canadian stations, refer to Radio Aids to Marine Navigation.

MERCHANT VESSEL POSITION REPORTS

In accordance with the provisions of the Atlantic Merchant Vessel Reporting Program, U.S. Coast Guard Radio Argentia (NIK) will accept Merchant Vessel Position Reports for relay to U.S. Coast Guard, New York. These reports should be separate from the ice and sea temperature reports addressed to Commander, International Ice Patrol.

WARNING

Carefully conducted tests by the International Ice Patrol during the 1959 season showed that radar cannot provide positive assurance for iceberg detection. An iceberg is only one-sixtieth as good a radar reflector as a comparable sized ship. Sea water is a better reflector than ice. The latter statement means that unless a berg or growler is observed on radar outside the area of sea "return" or "clutter" on the scope, it will not be detected by the radar. Furthermore, the average maximum range of radar detection of a dangerous size growler is 4 miles.

Radar is a valuable aid but its use cannot replace the traditional caution exercised in a passage across the Grand Banks during the ice season.

COLLISION NOTES

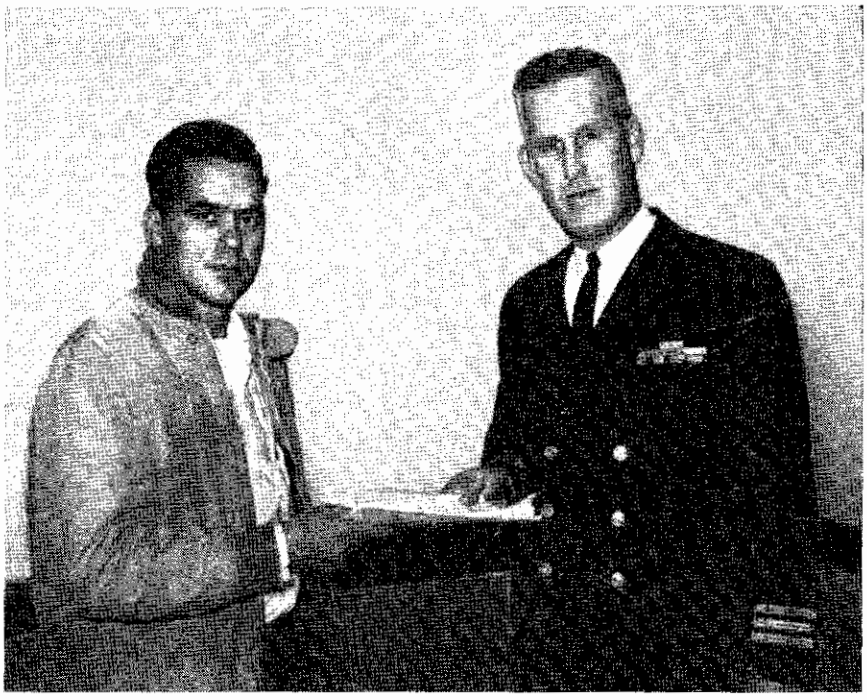
CROSSING SITUATION

In a recent collision case involving two vessels in a crossing situation the Commandant, upon review, found the privileged vessel to be at fault for failure to maintain course and speed. The record indicated that the pilot of the privileged vessel sounded two separate one-blast signals. After hearing no reply from the burdened vessel he stopped his engines. The following remarks are quoted from the Commandant's Action with respect to this point and are considered self-explanatory:

PURPOSE OF THE RULE

"The purpose of Article 21 is to remove from the potentially hazardous crossing situation as much uncertainty as possible. It accomplishes this by requiring the privileged vessel to maintain its course and speed, thus enabling the burdened vessel to determine, with some assurance, the action best designed to meet her own obligation to stay clear. Only when the situation deteriorates to such an extent that the privileged vessel knows or should know) that some different action is required lest a collision become inevitable can she ignore the mandate of the statute. This point is not reached merely when compliance becomes inconvenient, nor when anxiety occurs in the mind of the person in charge of the privileged vessel, nor even when he begins to doubt the intention of the other vessel. Nor does he have any right to rely on a speculation that the burdened vessel may not meet her obligation to stay clear.

COMMENDATION



MR. D. F. KAATZ is shown accepting his Letter of Commendation from Commander M. H. McGarity, OCMI, Milwaukee. The commendation was given to Mr. Kaatz for his attempt to rescue a fellow crew member who had fallen overboard from the SS Governor *Miller*.

MVI
30 OCTOBER 1961

Mr. DALHART F. KAATZ,
4648 Briarcrest Street
Long Beach, California

DEAR MR. KAATZ: The U.S. Coast Guard, as the principal agency of the United States Government charged with the safety of life and property at sea, is pleased to commend you for your meritorious action, when as watchman on board the SS *Governor Miller*, you assisted in an unsuccessful attempt to save a crew member who had fallen between the vessel and the wharf.

The report of investigation which inquired into the circumstances discloses that you entered the water in the dangerous area between the ship and the wharf without hesitation and without regard to your own safety to rescue the helpless crew member.

Your high regard for the life of a shipmate demonstrated by this action is in keeping with the highest traditions of the United States Merchant Marine.

Sincerely yours,

J. A. HIRSHFIELD,
Vice Admiral, U.S. Coast Guard,
Acting Commandant.

WHEN DEPARTURE FROM RULE IS AUTHORIZED

Only when there is reasonable *certainty* that the other vessel is not going to avoid, or cannot avoid, a threatened collision by her unaided action alone is the privileged vessel entitled to invoke Article 27 and take whatever different action may be necessary . To allow any earlier departure from the requirements of Article 21 would defeat its very purpose. It would not remove uncertainty, but compound it. Instead of assisting in avoiding a collision, it might cause, or contribute to, it. That was the result in this case.

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

CHAIRMAN:

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ASSISTANT OPERATIONS MANAGER
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TEXACO, INC.

PANEL SECRETARY:

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

To: Crews of U. S. Merchant Vessels

March 1, 1962

Gentlemen:

In the past, we have kept you up-to-date on activity in this country concerning accession to the 1954 International Convention on Oil Pollution. This is now an accomplished fact and on December 8, 1961, the law to implement the Convention in this country and regulations of the U. S. Army Engineers, written under that law, went into effect.

By this time, most of you will have on board your vessel the Oil Record Books required under the Army Engineer's Regulations. These Regulations are reprinted in the Oil Record Books and you are urged to familiarize yourself with them. Your attention is also called to Navigation and Vessel Inspection Circular 13-61, which will be found on Page 12 of the January, 1962 issue of these USCG Proceedings. If for any reason, your vessel does not have the Oil Record Books on board, be certain to obtain copies as soon as possible.

Your past cooperation in adhering voluntarily to the prohibited slop oil discharge zones has been most effective. These zones are now established under U. S. law, which carries with it stiff penalties, and we cannot stress too strongly the need for strict observance of the new law and regulations thereunder.

This spring, a U. S. Delegation will go to London to participate in an International Conference on Oil Pollution and revision of the Convention to which we have subscribed will be the major item for consideration. Your cooperation and adherence, all over the world, to the terms of the Convention, as reflected by U. S. law and regulation, will strengthen the position of the U. S. Delegation and we, therefore, sincerely ask for your support.

Yours very truly,

R. E. Mackey
Chairman

POLLUTION OF THE SEA BY OIL

BACKGROUND

The rapid increase in the use of oil for the propulsion of ships during and after World War I focused attention on the effects of the considerable quantities of oil being discharged into the sea. In addition, the use of oil as a source of industrial power engendered a tremendous increase in the quantities of oil transported by tank vessels.

Since World War I, attempts have been made to control and prevent oil pollution through national domestic legislation in several countries, through intergovernmental action, and through voluntary industry arrangements.

HISTORY

The efforts on the intergovernmental level culminated in the International Convention for the Prevention of the Pollution of the Sea by Oil, 1954, which came into force on July 26, 1958, with respect to signatory nations. Although the United States was represented at the 1954 International Pollution Conference, its delegation was under instructions not to sign the convention due to the short time available for considering the convention provisions.

Early in 1956, in accordance with a recomendation made by the U.S. delegation and included in the convention resolutions, a national committee to provide continuity, to serve as a focal point for Government-industry activity, and to facilitate exchange of oil pollution information between the United States and foreign countries was appointed, and held its first meeting on September 19, 1956. The National Committee is composed of representatives of the Departments of State; Commerce (Maritime Administration, Bureau of Foreign Commerce, National Bureau of Standards); Defense; Interior; and Treasury.

The National Committee made a careful study of the 1954 convention and on June 23, 1959, recommended to the Secretary of State that the United States accept the 1954 convention with certain reservations and understandings.

On 17 May 1961 the Senate gave its advice and consent to ratification of the convention, and the Oil Pollution Act, 1961, Public Law 87–167, was enacted to implement the provisions of the International Convention for Prevention of Pollution of the Sea by Oil, 1954, and was signed by the President on 30 August 1961. The United States became a party to the convention on 8 December 1961 and the Oil Pollution Act, 1961, was effective on that date.

Primary authority for the administration of the Oil Pollution Act, 1961, is vested in the Corps of Engineers, Department of the Army, and regulations were promulgated by that agency on 2 December 1961 to be effective on 8 December 1961 (26 F.R. 11421).

THE LEGISLATION

1. Seagoing American ships subject to the act are prohibited from discharging oil or oily wastes in any of the zones named in the act, including a zone extending 50 miles around our own coasts.

2. Oil record books shall be maintained showing where such oil or oily waste was discharged and shall be available to employees of the Corps of Engineers employed on river and harbor works; employees of any Corps of Engineers harbor supervisor; commissioned, warrant, and petty officers of the U.S. Coast Guard; and employees of the Bureau of Customs authorized to make the inspections required under the Oil Pollution Act, 1961. Oil record books maintained on foreign vessels whose governments are parties to the convention are subject to inspection by the enforcement officers mentioned above while the vessel is within U.S. waters.

3. In the event of discharge or escape of oil from a ship in a prohibited zone, the officer(s) in charge of the operation and the master are required to sign a statement in the oil record book of the circumstances and the reasons therefor.

4. Failure to comply with the requirements relative to oil record books is punishable by a fine not less than $500 nor more than $1,000. In addition, a person making false or misleading entries may be punished by imprisonment for a term not exceeding 6 months.

5. Ship fittings, equipment and operating requirements shall be in accordance with regulations prescribed by the Coast Guard. A civil penalty not in excess of $100 is prescribed for violations of Coast Guard regulations.

6. The license or document of any mariner found violating the provisions of the act or the regulations are subject to Coast Guard suspension or revocation provisions under section 4450 of the Revised Statutes, as amended (46 U.S.C 239).

REGULATIONS

The regulations promulgated by the Army Corps of Engineers are found in Part 212 of Title 33, Code of Federal Regulations. For ready reference these regulations will be found printed on the inside covers of the oil record book. These record books (one for tankers and the other for nontankers) are available at any Coast Guard Office of Merchant Marine Inspection, except those on the inland rivers and at certain small Great Lakes ports.

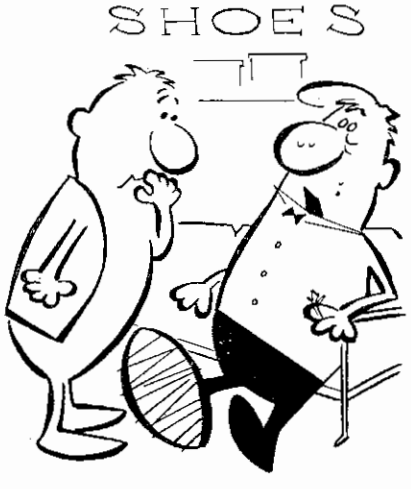
SAFETY SHOES

Aboard ship there continues to be too many injuries to toes and feet that could have been prevented by the use of safety shoes. This fact will not be popular with those persons who have a tendency to use their old shoreside shoes to the bitter end and then toss them overboard, but being properly clothed for the job is one of the most important factors in the prevention of personal injury.

Safety shoes, equipped with steel capped toes, is an item that can be utilized to great advantage by persons working on deck, in the engineroom, or any place where there is a possibility of falling objects striking the feet, or the toes striking some object.

Each year a large percentage of shipboard injuries consist of mashed and broken toes. Toe injuries could be virtually eliminated if men would wear safety shoes.

THE BEST DRESSED TOES IN TOWN ARE WEARING SAFETY SHOES



"SAFETY SHOES, PLEASE."

Courtesy Lykes Fleet Flashes

MARITIME SIDELIGHTS

The Navy Bureau of Ships has awarded a $2.04 million contract for the design and building of a 20-ton boat to ride just above the water on a cushion of air.

Named the *Hydroskimmer,* the craft is intended to advance general research in the field of ground-effect and water-skimming craft. By creating a cushion of air under the hull, water-surface friction is virtually eliminated.

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Construction of the 11th of 12 new piers being built by the Port of New York Authority in its vast rebuilding program on 2 miles of Brooklyn waterfront has been authorized by the bistate agency, it was announced recently.

It will be known as Pier 5, and will be at the foot of Joralemon Street in the Fulton Terminal area. Cost will be $5,746,000, and the pier is to be ready for occupancy in the fall of 1963. It will be 375 feet wide, 650 feet long on the north side, and 625 feet long on the south, with 180,000 square feet of shedded space.

To facilitate truck service at the pier, it will have an upland area of 158,000 square feet.

This is part of the Port Authority's $90 million program in Brooklyn. Construction also will begin soon on Piers 9–A and 9–B, scheduled for completion in the Baltic Terminal area in July 1963.

Completed so far are Piers 1, 2, and 3 in the Fulton Terminal section; Piers 6, 7, and 8 in Baltic Terminal; and Piers 10 and 11 in the Atlantic Basin.

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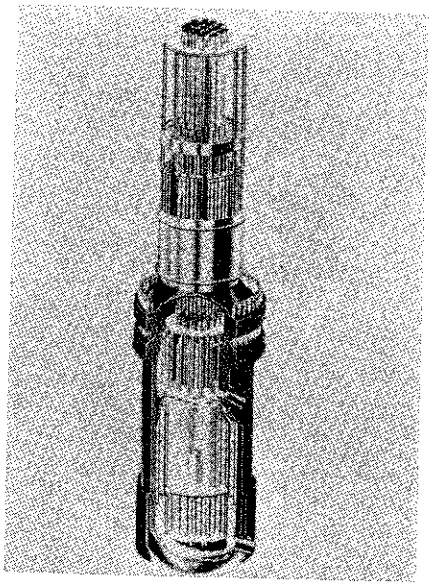
A course of study has been arranged for the seventh consecutive year at the U.S. Merchant Marine Academy, Kings Point, Long Island, N.Y., for a group of marine engineers from the Great Lakes, according to an announcement by Rear Adm. Gordon McLintock, Superintendent of Kings Point.

Engineers will study modern powerplants at the Academy. The course is sponsored by the Lake Carriers' Association to promote greater efficiency and safety among users of inland waters.

ATOMIC REACTOR ENERGIZED



Courtesy Moss Photo Service

THE N.S. SAVANNAH'S pressurized water reactor, sketched above, was designed and built by Babcock & Wilcox Co., prime contractor for the vessel's nuclear-power plant. The reactor reached criticality in late December 1961, and was successfully tested up to 10 percent of rated power in January 1962, at the New York Shipbuilding Corp. Yard, Camden, N.J. The *Savannah* then proceeded to Yorktown, Va., where she is undergoing completion of her dock trials up to 100 percent of rated power. Yorktown will also be used as a base for her subsequent sea trials.

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During 1961 the Port of Toledo, Ohio, handled more than twice the oversea tonnage shipped from that city during 1960, according to a report from Toledo port authorities.

Total oversea shipments amounted to 360,860 tons this season, as compared with 153,208 tons in 1960, an increase of 135 percent.

Construction has begun on the first of three ferries which will inaugurate the Alaska State-operated ferry system authorized last year by the State legislature. The vessels will link Prince Hubert, British Columbia, with Skagway, Alaska, via the Inside Passage.

Each ferry will carry approximately 100 automobiles and 600 passengers at a design speed of 17 knots. Completion of the *Malaspina,* whose keel was laid in Seattle last December, is scheduled for August of this year.

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The Mississippi Shipping Co.'s Delta Line has started its new semimonthly cargo and passenger service between gulf coast ports and Bahia, Brazil.

⚓ ⚓ ⚓

The 14,370-deadweight-ton *Washington,* newest freighter in States Steamship Co.'s $66 million ship replacement program, has been launched at the Newport News Shipbuilding & Dry Dock Co. yards in Virginia.

Two sister ships, the *California* and the *Oregon,* were launched earlier this year. Three more similar vessels will be built.

The *Washington* and her five sisters will be equipped to handle general freight stowed in containers and also by conventional methods.

The 20-knot ships are 565 feet long, 76 feet wide, have 800,000 bale cubic, and more than 82,000 cubic feet of reefer space.

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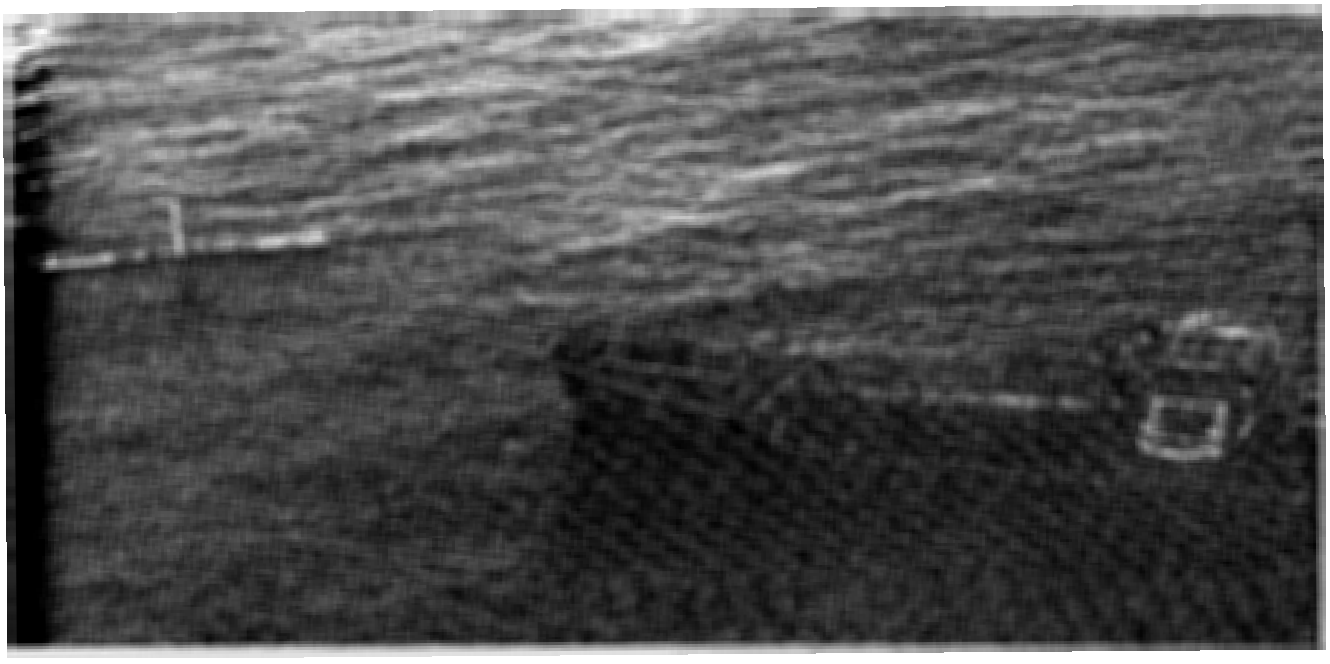
The cargo of two Bethlehem Steel Co. ore carriers which were torpedoed off Cape Hatteras during World War II will be salvaged if the plans of Stefanich Shipping Co. are successfully carried out.

The salvaging operations are expected to begin shortly, with Morehead City, N.C., serving as the base of operations.

The two ships, the *Venore* and the *Marore,* contain a cargo of 23,000 tons of high-grade iron ore and have been lying off of Cape Hatteras since 1942.



RESCUE AT SEA

By John S. Healy

AUGUST 4, 1959, saw the SS *Imperial St. Lawrence* surging peacefully through the azure blue water some 430 miles south of Bermuda, heading north for Portland with a load of Venezuelan crude in her tanks.

At 1600 the daily routine of the ship was being observed. Engineroom and deck watches were changing, while the dayworkers were chipping and painting in the brassy afternoon sun. It is the sort of day that in the 16th century would have found the lookout dozing in the crowsnest and the sails hanging limp—the perfect setting for a pirate raid or a below decks mutiny. Too perfect. Too calm and too beautiful for something to come along and not disturb it.

At precisely 1600 hours the blissful monotony of the late afternoon was broken by the sudden appearance out of the sun—as if indeed it had sprung from the face of that brassy monster—of a gleaming six-engined aircraft which shortly after being sighted began to orbit us. At first we were only mildly interested. These visitations are usual enough in this area with so many United States rocket launchings going on.

VESSEL ALERTED

When the plane persisted in circling and then flashed Morse signals, we began to take notice. We tried to raise her with our own apparatus, but this brought a negative response. Flags denoting our position and destination were then hoisted on the ship's yards, but again there was no apparent sign of recognition.

The Master, Capt. D. E. Fournier decided to call the Coast Guard at Bermuda and advise them of the situation. Bermuda informed us that the plane, a KB 50 en route from the Azores, was lost, low on fuel, and could transmit but not receive messages, and might have to ditch.

On receipt of this message, the ship was stopped, lifeboats were swung out with a view to picking up the aircraft's crew. By this time the plane was jettisoning heavy objects, papers, and lowering her landing gear as she circled us in swooping dives. There was no doubt about it. She was preparing to ditch.

LIFEBOAT CREW CALLED AWAY

In a matter of minutes we had our port boat cleared and away from the ship's side with a smooth efficiency that belied our mixture of engineroom, deck, and steward department men in her crew. There was as little fuss as if it were merely a lifeboat drill. Everyone went to work calmly, but with a sense of urgency that the situation demanded. Lives of fellow men were at stake; determination, speed, and efficiency would decide the issue.

Silently we watched as the aircraft slid swiftly across the surface of the sparkling sea, throwing up a spray like some gigantic water skier. In a few moments, which seemed like an eternity to the viewers, she emerged from her watery curtain and came to rest about 300 yards from *Imperial St. Lawrence.* About 5 minutes later the tail broke off and sank silently and sadly as if aware it was of no further use and might as well end it all.

RESCUE ACCOMPLISHED

As we approached the wreck, the sea assumed the appearance of a harbor after a regatta, flotsam of all kinds covering a large area. Papers personal effects, odd pieces of light equipment floated sluggishly in a pool of oil and gasoline, smelling sharp and nauseous in the heat of the sun. Two orange rafts bobbed nearby, manned by members of the stricken crew, and in the water was another man, his uniform in shreds and his blood staining the oil-polluted sea. The impact of the plane on the water had torn most of the clothing from his body.

Yet as we approached him he assured us in a jocular manner, "Don't worry—I have no intention of swimming away!" The others, who were lying or sitting on the rafts, had two of their numbers unconscious from injuries, and the conscious were in a

AIRCRAFT PROCEDURES FOR DIRECTING SURFACE CRAFT TO SCENE OF DISTRESS INCIDENT

The following procedures performed in sequence by an aircraft mean that the aircraft is directing a surface craft toward the scene of a distress incident:

1. Circling the surface craft at least once.

2. Crossing the projected course of the surface craft close ahead at low altitude, opening and closing the throttle, or changing the propeller pitch.

3. Heading in the direction in which the surface craft is to be directed. The surface craft should acknowledge the signal by changing course and following the aircraft. If, for any reason, it is impossible to follow, the surface craft should hoist the international code flag NOVEMBER, or use any other signaling means available to indicate this.

When the following procedure is performed by an aircraft it means that the assistance of the surface craft is no longer required:

1. Crossing the wake of the surface craft close astern at a low altitude opening and closing the throttle or changing the propeller pitch.

MERCHANT VESSEL PROCEDURES FOR ASSISTING AN AIRCRAFT THAT MUST DITCH

The following are recommended procedures for assisting an aircraft that desires to ditch alongside:

BY DAY:

1. Establish a radiotelephone watch on 2182 kcs if equipped. Attempt to contact the aircraft on this frequency.

2. Maintain a radiotelegraphy watch on 500 kcs. The Rescue Coordination Center controlling the case will try to contact the ship on this frequency via a shore radio station. Communications with the aircraft may have to be relayed in this manner.

3. Be prepared to send homing signals for the aircraft on 410 kcs.

4. Provide black smoke if possible to aid aircraft in sighting the ship.

5. Post extra lookouts.

fire extinguishers.

8. Have medicine chest, stretchers, blankets, hot drinks, and food ready.

9. Have ship's hospital prepared to receive injured persons.

10. Rig Jacobs ladders. Rig cargo net or rope mail sling on lee side amidships by cargo boom, to be used if necessary to heave up exhausted survivors. Injured persons should be left in the lifeboat to be hoisted aboard with it.

11. Be prepared to give aircraft information on weather and sea conditions. Aircraft will want to know wind direction and force; direction, height, and length of primary and secondary swell systems. If pilot selects ditch heading in sufficient time and conditions otherwise permit, lay foam path along ditching course.

12. When aircraft is in sight set course parallel to ditch heading that pilot had chosen. If not in communication with the aircraft by the time the plane is sighted and unable to obtain pilot's ditch heading, set course parallel to the main swell system and into the wind component, if any.

13. If on board, use a liferaft or buoyant apparatus in water as a landing platform at the Jacobs ladder.

14. Instruct coxswains to recover those survivors in the water or clinging to wreckage before recovering those in liferafts.

15. Keep the Rescue Coordination Center advised by radio, prior to, and subsequent to ditching.

BY NIGHT:

In addition to procedures recommended for daytime, the following are also recommended if the emergency occurs at night:

1. Lay a string of not less than 6 ring buoys with water lights approximately 500 feet apart in a single line along the ditch heading received from the pilot. Take station two-thirds down the lighted lane off to one side. The aircraft will attempt to land close to the lighted lane. Do not use carbide water lights because of the danger of gasoline on the water.

2. Light up the ship with all fixed deck lights and rig cargo lights on masts, king posts, top of decks, etc., if possible.

3. Use searchlights as visual beacons, shining one vertically and sweeping the sky at 15° off the horizon with the other. Do not shine lights toward the aircraft at any time, since this would blind the pilot.

dazed condition and seemed completely oblivious to all that was going on around them. We effected their hasty but gentle transfer to the lifeboat.

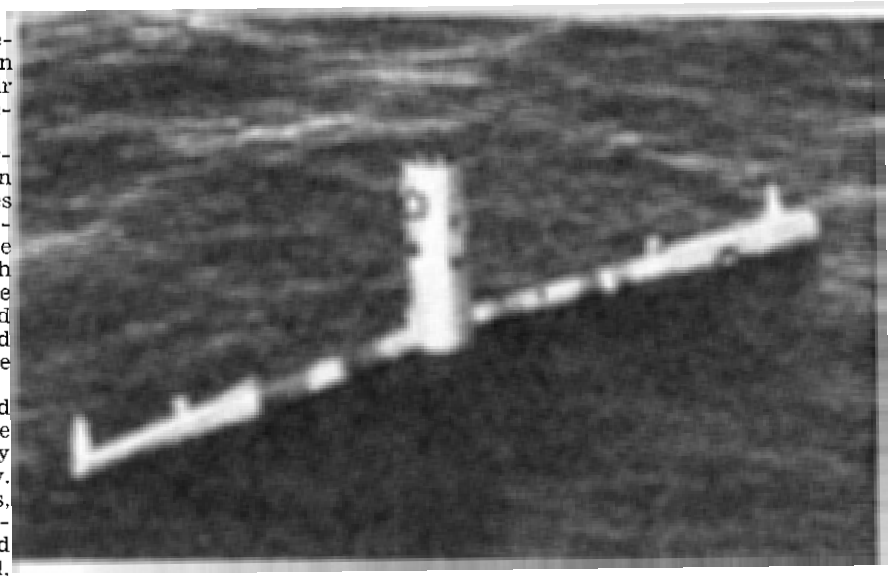
A quick check revealed that one airman was missing and our boat began to nose around carefully as all eyes scanned the water for a telltale movement of an upturned face. Then we headed back to the parent ship with the salvaged souls and they were quickly hoisted aboard. We returned to the wreckage, where our starboard boat was already searching for the missing man.

By this time the plane had settled with her broken tail high above the water, like a silver egret temporarily headless as it seeks underwater prey. The sea became alive with sharks, their black dorsel fins slicing ominously through the turgid sea. In and out of the plane's debris they circled, disregarding our boats in their quest. As we finally left them at dusk—neither of us anxious to quit the spot without the missing man—one huge brute followed us to the side of the ship and made a sullen snap at our keel as we were hoisted aboard. It was as though he knew we had snatched his dinner from him by getting the wounded men out of the water so promptly.

From the time the plane landed in its plunge until we hoisted the last wounded man aboard, it was a mere 15 minutes—good time for an irregular crew with no special training in rescue work.

Aboard ship Chief Steward Jack Porch and his staff had made the rescued airmen comfortable, cleaning dressing their wounds with unremitting care and attention. Their injuries were serious enough so that an all-night vigil had to be kept, and the Steward and his men worked without sleep, changing dressings, soothing their charges with skill and tenderness.

Out there in the dusk the wrecked plane had heaved up like a huge cross, and late at night a solitary plane flew over, dropping flares around it and making everything look rather eerie, like a voodoo ritual.



RENDEZVOUS ARRANGED

In the morning we received orders to rendezvous with the U.S. Coast ship *Mendota* out of Bermuda, which carried a doctor. At four in the afternoon we met the vessel and the doctor was transferred to the *St. Lawrence.* His examination of the men disclosed injuries too severe to risk their removal to the cutter, so our Electrician, Al Holt, and Bosun, Alex Watson, set to work converting our 'midship recreation room into an operating theater with lights, tables, and basins. It was not until midnight that the doctor and steward halted their labors—the last serious gash sewn together, the last broken bone splinted into place.

Volunteer stretcher bearers plodded carefully with their suffering burdens and then sat up to watch them, their rugged faces taut with concern, heavy hands placing cigarettes between pale lips. Even Captains Fournier and Espinosa took their turns as stretcher bearers, carrying the wounded men from the hospital to the improvised theater, anxious to help in any way they could. Next day we made Bermuda and were pleased to hear our rescue bid described fulsomely on the radio.

Perhaps the most striking fact that emerged from the incident was the knowledge that we were quite capable of dealing with such an emergency with the speed and unity of a trained lifeboat crew. Another heartening symbol of what we had felt all along was the essential brotherhood of man. Crew members gave willingly of their service, time and personal effects to the aircrew as if indeed they were members of their own family. Each man with a tiniest part in the rescue was as proud of being instrumental in saving a life as if he had personally "slain a thousand dragons." Although he was but a name to us, we felt the loss of the missing flier as keenly as if we had been one of his closest friends. And why not? We had seen his comrades displaying unflinching courage and bearing tremendous pain with dignity and reserve. Their selfless concern for their missing fellow crew member won our admiration. They were but young in years, but men of whom the western hemisphere, and indeed the whole world, can be proud.

Extracts from the *St. Lawrence's* bridge and radio log books give the ditched aircraft's number as USAF 10455—"Rudolph 455." She was a refuelling plane, a "flying tanker."

On their arrival at Bermuda, four of the rescued men were able to walk from the launch that brought them ashore and the other three were carried on stretchers. All were reported to be in "very good shape, considering what they had been through." The USAF doctor who boarded *Imperial St. Lawrence* from the cutter *Mendota* was Captain Ned Hornback, 604th Air Force Hospital.

Bermuda's Royal Gazette reported that "Captain Hornback praised Mr. Jack Porch, chief steward of the *Imperial St. Lawrence,* for his immediate first aid to the rescued fliers aboard the tanker. Mr. Porch applied first aid to the men until Captain Hornback arrived . . .

"Captain E. Dollard Fournier, captain of the *Imperial St. Lawrence,* commanded the initial rescue operations."

On August 6, Captain Fournier received this message: "Master SS *Imperial St. Lawrence:*

"Following received from Commander Eastern Area Coast Guard stop On behalf of the Coast Guard I wish to extend to Master and Crew of the SS *Imperial St. Lawrence* my sincere thanks and appreciation for the excellent achievement in the prompt and effective rescue of the survivors of Air Force KB 50 ditching on August 4 stop signed Rear Admiral H. C. Perkins.

"Commanding Officer CG Air Detachment Bermuda."

nautical queries

DECK

Q. You sight a mountain peak just breaking clear over the horizon. If the chart lists the height of the mountain as 2350 feet and your height of eye is 38 feet, what is your distance off?

A.

Height of mountain 2350 feet	=vis.	55.5
H.E. 38 feet	=vis.	7.1
Dist. from mountain when just visible=		62.6 miles

Q. A vessel whose date is 25 January, while in East Longitude, crosses the International Date Line on an eastbound course at 0900 Zone time.

(a) What change does she make in her local date?

(b) What is the date and time at Greeenwich when she crosses the line?

A. (a) The date is changed to 24 January.

(b) The date and time at Greeenwich is 24 January, 2100.

Q. What are the day signals to be made by a vessel seeking the services of a pilot?

A. (a) International code signal "G"

(b) International code signal "P.T."

(c) The pilot jack hoisted at the fore.

Q. Show precisely how you would signal the following:

(a) Bearing due north.

(b) 5 minutes past midnight.

(c) Latitude 3° North

(d) Longitude 86°-07' West

A.

(a)	(c)
X flag	P flag
0 pennant	0 pennant
1st repeater	3 pennant
2nd repeater	1st repeater
(b)	3rd repeater
T flag	(d)
0 pennant	P flag
1st repeater	8 pennant
2nd repeater	6 pennant
5 pennant	0 pennant
	7 pennant

Q. (a) Where may the required sail dimensions, and mast and yard height and diameter for a lifeboat of given length be found?

(b) Why is it important that the sail dimensions and mast and yard specifications be adhered to as close as possible?

A. (a) The regulations contain tables for the dimensions of sails, and the specifications of mast and yard for lifeboats of a given length.

(b) It is important that the regulations be adhered to in order to provide a minimum of sail power; the dimensions should not be exceeded because the danger of capsizing would be increased by too great a heeling moment, due to excess sail area or height of mast for an open lifeboat.

ENGINE

Q. Name the methods of determining the power output of a turbine.

A. The power output of the turbine may be determined (1) Mechanically, by a dynamometer, such as a prony brake, or a water brake. (2) Electrically, by measuring the electrical energy or the power output of the driven generator. (3) Through the use of torsion meters, which measure the horsepower delivered to the shaft by the torque or angle of twist applied to the shaft.

Q. Why is it desirable to use reduction gears in connection with turbines for ship propulsion? What care should be given reduction gears?

A. Reduction gears are desirable in turbines because it is necessary for the rotor to travel at a high speed in order to obtain the maximum efficiency from the turbine, while the propeller must be driven at a moderate speed in order that the percentage of slip be kept down. Gears and pinions should be examined regularly for wear, galling, or wire edging of the teeth, the alignment of the gears should be checked, also the lubricating system examined as to the condition of the oil pipes and proper location of the oil jets. The lubricating oil should be maintained free of grit and acids.

Q. What points of caution should be observed by an engineer in charge of a geared turbine in order to insure the life and good condition of the main reduction gearing?

A. (1) The main unit should be rolled over with the jacking gear after the lubrication system is in operation and just prior to warming up. This prevents pitting of gears and insures against metal to metal contact.

(2) Keep a close check and log of the main unit gear condition. Watch closely for pitting and galling and examine for bearing surface.

(3) Check closely material collected in the lubricating oil strainers, in order to estimate or analyze operating conditions.

(4) At least once a trip, check the oil spray to the main gears to see that clogging is not causing the spray to be directed away from gears.

(5) In case of emulsification of oil in the gear case, slow down until remedied.

(6) Should lubricating oil system fail, shut down the unit.

(7) When bearings are known to have been overheated, the gears should not be operated until the bearings have been checked. (Except in cases of extreme emergency.)

(8) Unusual noises in the main unit should be investigated immediately and the gears operated with extreme caution until cause is adjusted.

(9) When conditions permit, wipe gear case sump clean, at least twice a year.

(10) Keep oil level just below gear emersion to prevent agitation and heating.

(11) If oil pressure increases, investigate at once for plugged or clogged strainers or piping.

(12) Make periodic examination of main bearings, gear alignment and gear bearing surfaces.

Q. Explain how flexibility is introduced between the reduction gear and the next reduction pinion in the locked-train or articulated type reduction gears.

A. Flexibility is introduced through the use of a quill shaft and flexible couplings. Connection between the 1st and 2nd reductions is made by means of quill shafts which extend through the hollow, bored low-speed pinions, and attach to them at their after ends. These quill shafts may either be extensions of the high-speed gear shaft, flexibly coupled to the low-speed pinions, or may be separate shafts coupled flexibly to both the gears and the pinions.

Q. (a) Where is the back pressure valve installed?

(b) Why is this valve so important?

A. (a) It is a spring loaded valve fitted in the exhaust line.

(b) To provide constant pressure in the exhaust line, to provide a cushion to all reciprocating auxiliaries and to maintain a set pressure of steam on the feed water heater.

UNITED STATES COAST GUARD

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

MVI
4 August 1961

Commandant's Action
on
Marine Board of Investigation; engine room casualty on 27 June 1960 and subsequent foundering on 30 June 1960 of the SS *George MacDonald,* approximately 165 miles east of Savannah

The record of the Marine Board of Investigation convened to investigate subject casualty including its Findings of Fact, Conclusions, and Recommendations has been reviewed.

At about 1900, 27 June 1960, the SS *George MacDonald,* a T–3 tank vessel, while approximately 165 miles east of Savannah, Georgia, suffered a ruptured water box on her main condenser which resulted in flooding of the after spaces and eventual foundering. All crew members were safely removed from the vessel before she went down.

The *George MacDonald* was en route from Houston, Texas, to Brooklyn, New York, with a cargo of Bunker C fuel oil. All tanks were full except number 5 wings which were empty and numbers 1 and 7 centers which were slack.

On the morning of 27 June the electric motor driving the main circulating pump overheated. The auxiliary circulating and Butterworth pumps were placed on the main condenser, the engine slowed to 41 rpm, the main circulating pump secured and repairs commenced. At 1845 the motor was reassembled and ready for tests. The main circulating pump was started and the high injection partially opened. After 2 or 3 minutes of normal operation, the pump was speeded up and the motor arced severely. The pump was stopped and the high injection valve closed. The commutator and brush rigging were cleaned and again the motor was started while the first assistant engineer took position to observe the opening and closing of the relays. The starting coils engaged, the first and second automatic contacts closed and when the third contact closed the starting relay arced and opened. At the same time a sound described as a thump or explosion was heard and a 20-inch stream of water was observed flowing from the bottom of the outlet box on the starboard ejection end of the condenser. The auxiliary sea suction was closed and the main engine was secured. Two men went into the lower engineroom to close the 24-inch overboard valve. On this particular vessel the valve stem pointed downward. The valve wheel turned freely but required about 60 turns to close. While the valve was being closed, the water continued to rise and the main generators were secured when the level reached the electrical ends of some of the pumps. When the water was between the knees and the ankles of the men closing the overboard valve, the chief engineer ordered the watertight door to the fireroom secured and the engineering spaces abandoned. The overboard valve was estimated to be between one-third and two-thirds closed at that time. The chief engineer attempted to start the auxiliary diesel generator but finding the switchboard badly burned, ceased his efforts. On deck the master ordered all watertight closures secured, sent a distress message, mustered the crew with life preservers and prepared to swing out boats. An attempt was made to gravitate cargo from number 8 tanks to the forward tanks and to the sea but when neither appeared to be successful the valves were closed. The flooding continued at a rapid rate until the water level in the engineroom reached the level of the sea. The flooding rate then decreased but the vessel continued to settle.

At 2058, 27 June, the *Esso Scranton* arrived on the scene and 28 crew members were transferred by lifeboat. The master and 13 others remained aboard the *MacDonald.* At approximately 2130 the destroyer escort USS *Robinson* arrived on the scene and offered to put damage control parties aboard and/or take her in tow but both offers were declined. The master had been advised by radio that the commercial tug *Savannah* and the Sinclair tanker SS *J. E. Dyer* were en route to take the *MacDonald* in tow. At 0330 and at 0500, 28 June, 10 more crew members were removed by the *Robinson* leaving only the master, second mate and one able seaman aboard. The *Savannah* subsequently returned to port due to engine trouble and at 1530 on 28 June the *J. E. Dyer* arrived on the scene and took the *MacDonald* in tow. At 1730 the master and two remaining crew members were removed from the *MacDonald* by the USCGC *Papaw.* At 0240 on 29 June the towline parted during poor visibility and when visual contact was again established only the bow of the *MacDonald* was projecting above the surface. No further attempt was made to tow the *MacDonald* and her bow remained above the water for approximately 24 hours and finally sank in 75 fathoms at about 0215 on 30 June.

REMARKS

Concurring with the Board, it is considered that the loss of the vessel resulted from a rupture of the outlet on the ejection end of the main condenser followed by uncontrolled flooding which eventually sank the ship.

The Board concluded that the cause of the condenser header box failure could not be determined but suggested the possibility of an unusual hydraulic or thermal shock. There is nothing in the record to support this conjecture nor does there appear to be any connection between the failure and the testing of the main circulating pump motor which was in progress at the time. The Board made no determination of the age of the condenser although it was noted that the vessel itself was 17 years old at the time of the casualty. Of possible significance is the fact that examinations of condenser heads on vessels of similar

type and age subsequent to this casualty have disclosed instances of advanced wastage. While the testimony would tend to discount the possibility of wastage in this case the seriousness of this type of casualty dictates the need for a thorough examination of the condenser heads of older vessels on every occasion when opened for inspection and renewal of zinc or mild steel plates. Navigation and Vessel Inspection Circular No. 4–61 dealing with this subject was promulgated on 18 May 1961.

The Board expressed the opinion that the chief engineer's order to abandon the engineroom was premature but did not constitute actionable fault. This opinion is concurred in. Although each turn of the ejection valve would have resulted in a corresponding reduction in the flooding rate, recognizing the possibility that crew members might have been trapped in the space if delayed too long, the order to abandon the engineroom given in the stress of the emergency cannot be criticized.

The Board's opinion that the decision of the master to refuse the assistance of a damage control party offered by the USS *Robinson* demonstrated good judgment and seamanship is not concurred in. After the water in the engineroom reached the level of the sea it should have been readily apparent to the master that the vessel was not going to sink unless the flooding progressed to other compartments. With the engineroom flooded, only the fireroom, the pumproom, the cofferdams and the steering engineroom remained to provide the buoyancy necessary to keep the vessel's stern section afloat. Aside from the unsuccessful attempts to gravitate cargo from number 8 tanks the record reflects that the only other damage control measures consisted of closing watertight doors and ports. When the vessel continued to settle thereafter, the only reasonable conclusion which could have been reached was that flooding of other spaces was in progress. Having apparently exhausted his own resources and recognizing that Navy personnel are especially trained in damage control, it is considered that the master should have availed himself of the Navy's offer of damage control assistance despite any reservations he may have had as to its ultimate success.

The Board further considered that the decision of the master to decline the Navy's offer of a tow was an error in judgment. This suggests that the master's decision under the existing conditions and in the light of what was then known was consistent with the principles of good seamanship. Such a view is not supported by the record. The master knew his vessel was settling steadily from the outset and must have recognized that it was just a matter of time before she would founder. Other than the fact that he had received word from his company that a vessel was en route to take the *MacDonald* in tow he offered no justification for refusing the *Robinson*'s offer. His statements in the record that his vessel's midship section would have been subjected to a severe stress due to the necessity for changing course upon being taken in tow and the Board's suggestion that towing by the *Robinson* might have accelerated the flooding are not compelling arguments in view of the fact that these possibilities would still have to be faced when the company vessel arrived.

Based on this casualty the Board recommended that the low suction and the overboard valve on the main condenser on all T–2 and T–3 tank ships be provided with means for manual closing from a point at least 30 feet above the keel. If valid, this recommendation should not be restricted to tank ships but should be applied to all vessels similarly equipped; however, such a requirement is not considered justified either by this case or by prior casualty experience. The likelihood of the repetition of the gross failure that occurred in this instance is remote and if owners and operating personnel embark on a conscientious program of regular examinations and maintenance of the main condenser, associated piping and valves, no other action should be necessary to prevent recurrence.

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

A. C. Richmond,
Admiral, U.S. Coast Guard,
Commandant.

BURNS—FROM HOT WATER OR STEAM

Among the various types of injuries, burns from hot water or steam rank high among the more serious accidents. In this connection, we are pleased to print an article by Mr. Joseph C. Cragin, Superintendent Engineer, United States Lines.

One of the first lessons an engineer learns is to beware of the danger of severe burns by hot water or steam. Although this lesson is learned early by every engineer, now and again carelessness and forgetting simple precautions result in bad burns.

Whenever a steam pipe line or line containing hot water is to be worked on, these precautions are necessary:

Tightly shut off valves at each end of pipe line to be repaired and eliminate pressure of hot water or steam supplied to pipe line.

Open all drains in this section of pipe line and be sure drains are clear and draining properly and allow sufficient time for line to drain thoroughly.

Check line by feeling an uninsulated section of pipe or flange and be sure that line is thoroughly drained and cool to touch.

When opening flanged joint in line or when removing valve bonnet, stand clear and loosen bolts slightly—*but do not remove bolts.* Then tap in wedge and slightly open flange joint, still standing clear. By so doing, any hot water still not drained from line may be safely controlled as it finally drains fully. Should excess water pressure or quantity become evident the bolts may be safely retightened until line is safely drained.

If the above rules are followed and the bolts in flanges removed only after flanges have been slowly separated until approximately ¼ inch apart and all draining done under safe controlled conditions, it will be impossible to get burned by a sudden rush of hot water. All bolts can now be removed and repairs commenced.

Warning — Although frequently when hot water and steam lines are opened for repairs, time is at a premium—*Slow Down* and take a little extra time and *Be Sure* that line is thoroughly drained before opening joint wide enough to cause danger.

"SCOW" DESIGNATION ELIMINATED

(Customs Bureau to Eliminate Designation of Vessels as "Scows")

The Bureau of Customs has changed certain rig classifications used in connection with the documentation of vessels, including the elimination of the term "scow." Customs will classify under the rig "barge" all nonself-propelled vessels other than houseboats or dredges.

In the past the rig "barge" has been applied to a vessel of ship-shaped superior construction fitted with a rudder and constructed for the carrying of cargo under deck. The rig "scow" referred to a vessel of flat bottom, broad beam, and square ends without steering gear or control of its own.

Customs has also eliminated various sail rigs and put them all under one clasification of "sail" and added certain definitions to cover hydrofoils and nuclear vessels.

Designations for the rigs thus added, eliminated, or redefined will be changed in the records of the Bureau, in the annual publication "Merchant Vessels of the United States," and on any marine document subsequently issued, but no document will be required to be surrendered merely because of such change in rig designation.

Courtesy Maritime Reporter

MERCHANT MARINE PERSONNEL STATISTICS

MERCHANT MARINE OFFICER LICENSES ISSUED

QUARTER ENDING 31 DECEMBER 1961

DECK

Grade	Original	Renewal
Master:		
Ocean	36	376
Coastwise	1	18
Great Lakes		59
B.S. & L.	10	77
Rivers	6	53
Radio officer licenses issued	16	90
Chief mate:		
Ocean	30	108
Coastwise		
Mate:		
Great Lakes		
B.S. & L.	3	13
Rivers	6	29
Second mate:		
Ocean	19	68
Coastwise		
Third mate:		
Ocean	10	71
Coastwise		1
Pilots:		
Great Lakes	7	18
B.S. & L.	38	19
Rivers	88	32
Master: Uninspected vessels	6	19
Mate: Uninspected vessels	1	
Motorboat Operators	149	573
Total	426	1,624
Grand total	2,050	

ENGINEER

Grade	Original	Renewal
STEAM		
Chief engineer:		
Unlimited	23	517
Limited	6	92
First assistant engineer:		
Unlimited	23	172
Limited	2	3
Second assistant engineer:		
Unlimited	56	186
Limited		2
Third assistant engineer:		
Unlimited	29	187
Limited	3	
MOTOR		
Chief engineer:		
Unlimited	7	104
Limited	21	138
MOTOR—continued		
First assistant engineer:		
Unlimited		15
Limited	9	22
Second assistant engineer:		
Unlimited	3	23
Limited	1	
Third assistant engineer:		
Unlimited	9	87
Limited	1	1
Chief engineer: Uninspected Vessels	10	19
Assistant engineer: Uninspected Vessels	15	2
Total	218	1,570
Grand total	1,788	

WAIVER OF MANNING REQUIREMENTS

Waivers	Atlantic Coast	Gulf coast	Pacific coast	Great Lakes	Total
Deck officers substituted for higher ratings					
Engineer officers substituted for higher ratings					
Ordinary seamen for able seamen					
Wiper or coalpassers for qualified member engine department					
Total waivers					
Number of vessels					

ORIGINAL SEAMAN'S DOCUMENTS ISSUED

Type of document	Atlantic coast	Gulf coast	Pacific coast	Great Lakes and rivers	Total
Staff Officer	25	6	17		48
Continuous Discharge Book		5			5
Merchant Mariner's Documents	1,088	646	607	348	2,689
AB any waters unlimited	58	57	55	23	193
AB any waters, 12 months	49	31	27	25	132
AB Great Lakes, 18 months	1		3	6	10
AB tugs and towboats, any waters	1	4			5
AB bays and sounds	2				2
AB seagoing barges	1	2	1		4
Lifeboatman	62	7	78	3	150
Q.M.E.D.	85	52	49	31	217
Radio officer	5		5		10
Certificate of service	1,043	613	569	287	2,512
Tankerman	10	59	5	57	131
Total	2,430	1,482	1,416	780	6,108

INVESTIGATING UNITS

Coast Guard Merchant Marine Investigating Units and Merchant Marine Details investigated a total of 3,915 cases during the fourth quarter of 1961. From this number, hearings before examiners resulted involving 44 officers and 224 unlicensed men. In the case of officers, 2 licenses were revoked, 3 were suspended without probation granted, 16 were suspended with probation granted, 7 cases were dismissed after hearing, and 3 hearings were closed with admonition.

Of the unlicensed personnel, 15 documents were revoked, 11 were suspended without probation granted, 87 were suspended with probation granted, 14 cases were dismissed after hearing, and 11 hearings were closed with admonition. Twelve licenses and 102 documents were voluntarily surrendered.

NOTICE

The publication "The Ship's Medicine Chest and First Aid at Sea" has been reprinted and is available for distribution. The book is a guide prepared primarily for the instruction of those responsible for the administration of emergency treatment at sea. A partial list of the table of contents includes chapters on the structure and functions of the human body, hygiene, general nursing care, first aid, and the classification and treatment of diseases. This publication provides instructions beyond first aid as continued treatment and aftercare may be necessary until the services of a physician become available. The methods and techniques are demonstrated by many illustrations, some of which are in color. 1947 (reprinted with additions and changes, 1955), 498 pages. Copies may be obtained from the Superintendent of Documents, Government Printing Office, Washington 25, D.C., at $5.00 each; refer to Catalog No. FS 2.29:9/3.

Chapter VI—Department of the Navy

SUBCHAPTER G—MISCELLANEOUS RULES

PART 765—RULES APPLICABLE TO THE PUBLIC

Merchants Crews

Scope and purpose. Section 765.15 is revised to conform with the corresponding provision (article 0776) of U.S. Navy Regulations, 1948.

Section 765.15 is revised to read as follows:

§ 765.15 Merchant crews.

Ships under the jurisdiction of the Navy, and having merchant crews, are amenable to navigation laws. In foreign ports their crews must be shipped and discharged before consuls, and papers must be deposited with consuls, except in those cases where anticipated orders for prompt movement makes this course undesirable, in which case the consul is to be notified.

(R.S. 161, secs. 5031, 6011, 70A Stat. 278, 375, as amended; 5 U.S.C. 22, 10 U.S.C. 5031, 6011)

By direction of the Secretary of the Navy.

[SEAL] W. C. MOTT,
Rear Admiral, U.S. Navy,
Judge Advocate General of the Navy.

DECEMBER 1, 1961.

[F.R. Doc. 61-11554; Filed, Dec. 5, 1961; 8:53 a.m.]

AMENDMENTS TO REGULATIONS

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

TITLE 46—SHIPPING

Chapter I—Coast Guard, Department of the Treasury

SUBCHAPTER Q—SPECIFICATIONS

[CGFR 61-62]

PART 164—MATERIALS

Costs of Pre-Approval Tests of Materials, and Statutory Authorities for Material Specifications

The purpose for the amendments to 46 CFR 164.006-5(c)(4), 164.008-4(c)(2), and 164.009-4(c) is to change the procedures for approval to agree with present practices followed by the National Bureau of Standards. In lieu of requiring a check to cover estimated costs of the tests the manufacturer will be required to submit a commitment stating he will reimburse the National Bureau of Standards for the costs of the tests when billed by them. The National Bureau of Standards no longer requires advance payment of estimated costs of tests to be made by check payable to the Treasurer of the United States. The revised procedures require the payment be made direct to the National Bureau of Standards.

In accordance with 1 CFR 13.46, the citations of authority in 46 CFR Part 164 are brought up to date.

Because the amendments to the regulations in this document are changes in procedures, or changes considered to be editorial in nature, it is hereby found that compliance with the Administrative Procedure Act (respecting notice of proposed rule making, public rule making procedures thereon and effective date requirements thereof) is impracticable and unnecessary.

(Federal Register of January 6, 1962)

TITLE 46—SHIPPING

Chapter I—Coast Guard, Department of the Treasury

SUBCHAPTER M—BULK GRAIN CARGOES

[CGFR 61-65]

PART 144—LOADING AND STOWAGE OF GRAIN CARGOES

Transportation of Loose Grain in Bulk

The Merchant Marine Council held a public hearing on March 27, 1961, for the purpose of receiving comments, views and data with respect to the proposals regarding bulk grain cargoes, which was considered as Item VI on its Agenda. These proposals were included in the notice of proposed rule making published in the Federal Register on February 15, 1961 (26 F.R. 1278-1286). The Merchant Marine Council Public Hearing Agenda (CG-249), dated March 27, 1961, set forth the proposals in detail and copies thereof were furnished to all who indicated an interest in the subjects set forth therein.

The purpose for this revision is to promote safety in the handling, stowage and transportation of loose grain in bulk on board vessels by establishing minimum requirements. These requirements apply to cargo vessels of 500 gross tons or over or passenger vessels when such vessels are carrying loose grain in bulk on international voyages other than international voyages on the Great Lakes. A number of comments were received and in view of problems presented the final recommendations of the Merchant Marine Council were delayed. The primary problem was one regarding stability and related to the sufficiency of the "GM" limits contained in the proposals. It has been determined that the proposals regarding 12-inch and 14-inch "GM" limits are not sufficient for safety when applied to vessels larger than the Liberty ships. The values which are considered sufficient for such larger ships are 1¾ percent of the beam for one- or two-deck vessels and 2 percent of the beam for vessels having more than two decks. Thus a two-deck vessel of 68-foot beam is required to have a minimum "GM" of 1.19 feet or 14.3 inches, and a three-deck vessel of 75-foot beam, a minimum "GM" of 1.5 feet or 18.0 inches. Since these "GM" values are also higher in some cases than that provided in the 1960 Safety of

Life at Sea Convention, action has been initiated to effect a reconsideration of the grain stability provisions in this 1960 Convention by the Intergovernmental Maritime Consultative Organization.

The proposals in Item VI regarding "Bulk Grain Cargoes" as revised are approved. Changes in 46 CFR 144.10–95, 144.20–1, 144.20–10, 144.20–20, 144.20–22, 144.20–28, 144.20–30, 144.20–32, 144.20–34, and 144.20–36 were made by the Merchant Marine Council. These changes were the direct result of comments received and problems presented or are deemed necessary to make the regulations sufficiently definitive. Except for those changes regarding stability, these changes neither increase nor decrease the severity of the requirements.

This document is the last of a series regarding the regulations and actions considered at the March 27, 1961, Public Hearing and Annual Session of the Merchant Marine Council. This document contains the final actions taken with respect to Item VI regarding "Bulk Grain Cargoes." The seventh document of this series summarized the actions taken by the Merchant Marine Council with respect to the March 27, 1961, Public Hearing and was published in the Federal Register of September 30, 1961 (26 F.R. 9253–9304). The eighth document dealt with smoke detecting systems on passenger vessels and was published in the Federal Register of September 23, 1961 (26 F.R. 8979). The ninth document dealt with shipboard cargo gear and power-operated industrial trucks and was published in the Federal Register of November 23, 1961 (26 F.R. 10995–11022).

(Federal Register of January 18, 1962)

TITLE 46—SHIPPING

[CGFR 61–63]

Chapter I—Coast Guard, Department of the Treasury

MISCELLANEOUS AMENDMENTS TO CHAPTER

Chapter I of Title 46 is amended in the following respects:

SUBCHAPTER A—PROCEDURES APPLICABLE TO THE PUBLIC

PART 2—VESSEL INSPECTIONS

Assessment, Mitigation or Remission of Penalties; and Navigation and Vessel Inspection Waivers

The purpose for the amendments in this document is to revise the procedures for assessment, mitigation or remission of civil penalties as authorized by law. These amendments will (1) permit the Coast Guard District Commander to delegate to the Chief of Staff or Chief, Merchant Marine Safety Division, who serves under his command, the authority to take final actions on civil penalty cases; (2) shorten the length of time allowed from 30 days to 15 days for violators to petition for mitigation or to appeal to the Commandant which may be extended in the discretion of the District Commander when circumstances warrant such action; and (3) prohibit the remission or mitigation of civil penalties in those cases where it has been determined that violations have been established but the offenders deny they committed the violations. The basic procedures are unchanged; however, editorial changes to clarify existing regulations and to recognize existing practices have been made. These revised procedures will be in effect on and after April 1, 1962.

The regulations in this document describe the Coast Guard's procedures applicable to the public and therefore are exempt from the rule making procedures required by the Administrative Procedure Act (5 U.S.C. 1003).

However, interested persons may submit written comments on the revised procedures regarding assessment, mitigation or remission of penalties. These comments should be submitted to the Commandant (CMC), U.S. Coast Guard, Washington 25, D.C. Each comment received prior to February 15, 1962, will be considered and evaluated, and if it is believed that a comment received clarifies or improves a regulation, it will be changed accordingly. After adoption by the Commandant, the amended regulation will be published prior to April 1, 1962, the date when these revised procedures shall become effective.

(Federal Register of January 20, 1962)

ARTICLES OF SHIPS' STORES AND SUPPLIES

Articles of ships' stores and supplies certificated from 1 January to 31 January 1962, inclusive, for use on board vessels in accordance with the provisions of part 147 of the regulations governing "Explosives or Other Dangerous Articles on Board Vessels" are as follows:

CERTIFIED

Farrell Chemical Co., 705 Second Ave., Seattle 4, Wash., certificate No. 504, dated 19 January 1962, D–44 DEGREASER.

AFFIDAVITS

The following affidavits were accepted during the period from 15 December 1961 to 15 January 1962:

K & D Co., 14718 Kiswich St., Van Nuys, Calif., VALVES.

Riken Koki Co., Ltd., 11, 2-Chome, Chuoku, Tokyo, Japan, FITTINGS.

Gulf States Tube Corp., P.O. Box 952, Rosenberg, Tex., PIPE & TUBING (Ferrous).

Rooke Engineering Corp., 8650 Tujunga Ave., Sun Valley, Calif., VALVES.

Texas Bolt Co., P.O. Box 1211, Houston 1, Tex., BOLTING.

Bellows-Valvair[1] Hydraulic Division, 1913 East State St., Box 337, Salem, Ohio, VALVES.

[1] This company was formerly listed as the Hunt Valve Co. for valves.

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 15 December 1961 to 15 January 1962 is as follows:

The Lunkenheimer Co., Cincinnati 14, Ohio, Heat Nos. 647, 648, 649, 650, 651, and 652.

ACCEPTABLE HYDRAULIC CAST IRON VALVES

Hydraulic cast iron valves, which have passed high impact shock tests and accepted under the provisions of 46 CFR 55.07–1(e)(3).

Manufacturer	Valve type	Identity	Drawing No.
Vickers, Inc., 172 E. Aurora St., Waterbury 20, Conn.	Pilot operated, 4-way valve.	DF5S4-16***-30	I 1871 155
Denison Engineering Division American Brake Shoe Co., Columbus 16, Ohio.	Remote control	Model RE 021322B	Bulletin VR-2D

NOTE.—The asterisks (*) in the valve model number will be letter and/or number combinations designating variances in the valves which do not affect the accepted cast iron body.

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 (7–1–58).
108	Rules and Regulations for Military Explosives and Hazardous Munitions (8–1–58).
115	Marine Engineering Regulations and Material Specifications (2–1–61).
123	Rules and Regulations for Tank Vessels (12–1–59). F.R. 3–30–60, 10–25–60, 11–5–60, 12–8–60, 7–4–61, 9–30–61, 11–23–61, 12–13–61.
129	Proceedings of the Merchant Marine Council (Monthly).
169	Rules of the Road—International—Inland (5–1–59). F.R. 5–21–59, 6–6–59, 5–20–60, 9–21–60, 4–14–61, 4–25–61.
172	Rules of the Road—Great Lakes (5–1–59). F.R. 1–7–60, 3–17–60, 5–20–60, 9–21–60.
174	A Manual for the Safe Handling of Inflammable and Combustible Liquids (7–2–51).
175	Manual for Lifeboatman, Able Seamen, and Qualified Members of Engine Department (9–1–60).
176	Load Line Regulation (9–1–61).
182	Specimen Examinations for Merchant Marine Engineer Licenses (12–1–59).
184	Rules of the Road—Western Rivers (5–1–59). F.R. 6–6–59, 5–20–60, 9–21–60, 10–8–60, 12–23–60, 4–14–61, 4–25–61.
190	Equipment Lists (4–1–60). F.R. 6–21–60, 8–16–60, 8–25–60, 8–31–60, 9–21–60, 9–28–60, 10–25–60, 11–17–60, 12–23–60, 12–24–60, 5–2–61, 6–2–61, 6–8–61, 7–21–61, 7–27–61, 8–16–61, 8–29–61, 8–31–61, 9–8–61, 9–9–61, 10–18–61, 11–3–61, 11–18–61, 12–12–61.
191	Rules and Regulations for Licensing and Certificating of Merchant Marine Personnel (11–1–60). F.R. 11–30–60, 1–4–61, 4–19–61, 10–25–61.
200	Marine Investigation Regulations and Suspension and Revocation Proceedings (7–1–58). F.R. 3–30–60, 5–6–60, 12–8–60, 7–4–61.
220	Specimen Examination Questions for Licenses as Master, Mate, and Pilot of Central Western Rivers Vessels (4–1–57).
227	Laws Governing Marine Inspection (7–3–50).
239	Security of Vessels and Waterfront Facilities (8–1–61). F.R. 12–12–61.
249	Merchant Marine Council Public Hearing Agenda (Annually).
256	Rules and Regulations for Passenger Vessels (3–2–59). F.R. 4–25–59, 6–18–59, 6–20–59, 7–9–59, 7–21–59, 9–5–59, 1–8–60, 5–6–60, 8–18–60, 10–25–60, 11–5–60, 11–17–60, 12–8–60, 12–24–60, 12–29–60, 4–19–61, 7–4–61, 9–30–61, 11–23–61, 12–13–61.
257	Rules and Regulations for Cargo and Miscellaneous Vessels (3–2–59). F.R. 4–25–59, 6–18–59, 6–20–59, 7–9–59, 7–21–59, 9–5–59, 5–6–60, 5–12–60, 10–25–60, 11–5–60, 11–17–60, 12–8–60, 12–24–60, 7–4–61, 9–30–61, 10–25–61, 12–13–61.
259	Electrical Engineering Regulations (12–1–60). F.R. 9–30–61.
266	Rules and Regulations for Bulk Grain Cargoes (5–1–59). F.R. 1–18–62.
268	Rules and Regulations for Manning of Vessels (9–1–60). F.R. 5–5–61, 6–28–61, 12–16–61.
269	Rules and Regulations for Nautical Schools (3–1–60). F.R. 3–30–60, 8–18–60, 11–5–60, 7–4–61, 9–30–61, 12–13–61.
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 (3–7–60).
320	Rules and Regulations for Artificial Islands and Fixed Structures on the Outer Continental Shelf (10–1–59). F.R. 10–25–61, 11–3–61.
323	Rules and Regulations for Small Passenger Vessels (Not More Than 65 Feet in Length) (7–1–61).
329	Fire Fighting Manual for Tank Vessels (4–1–58).

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

CHANGES PUBLISHED DURING JANUARY 1962

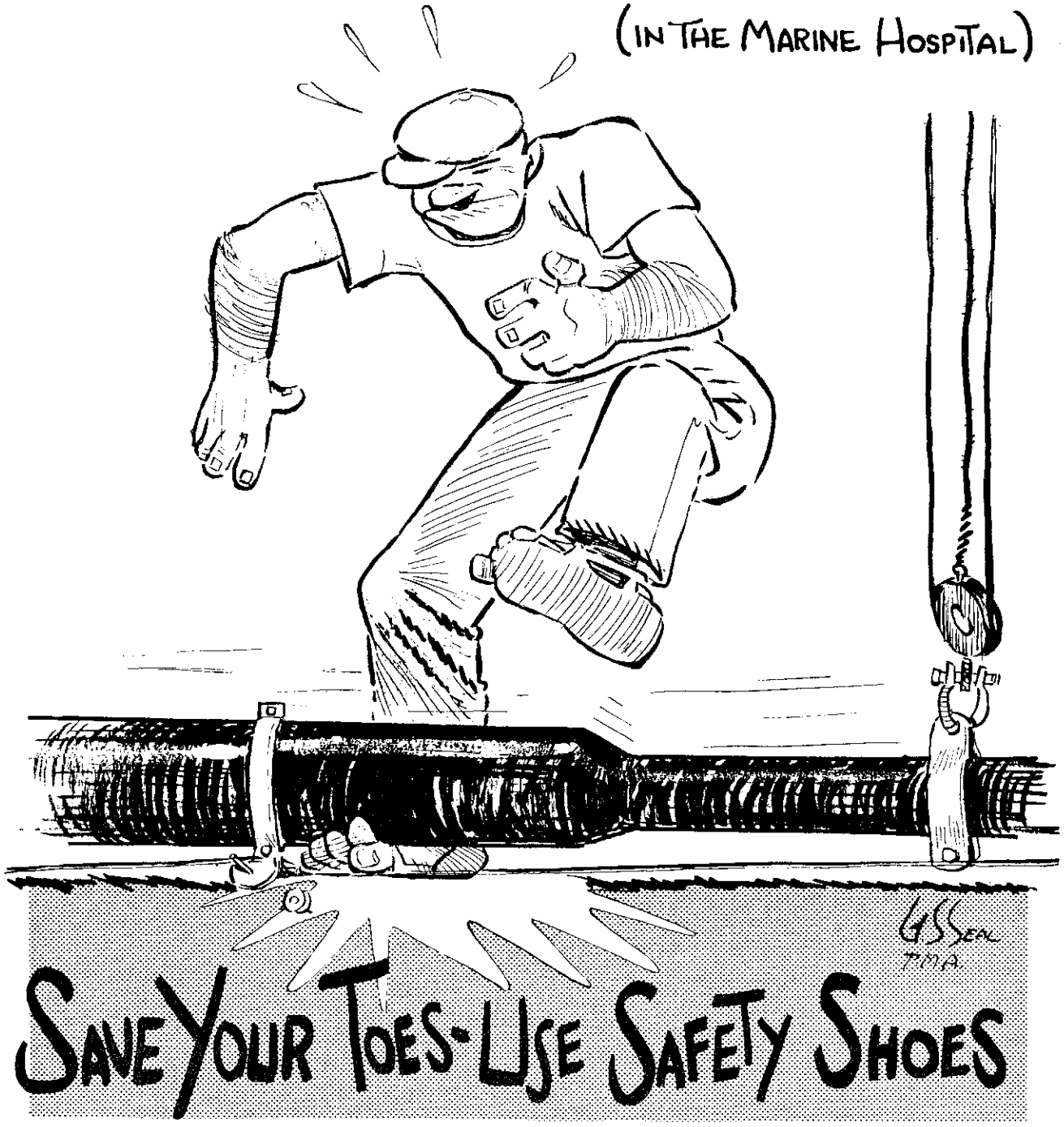
The following has been modified by Federal Register:

CG–266, Federal Register, January 18, 1962.

U.S. GOVERNMENT PRINTING OFFICE: 1962

THE MAN WHO WEARS "GO AHEADS" SOMETIMES GETS LEFT BEHIND

(IN THE MARINE HOSPITAL)



SAVE YOUR TOES - USE SAFETY SHOES