

PROCEEDINGS

OF THE MERCHANT MARINE COUNCIL

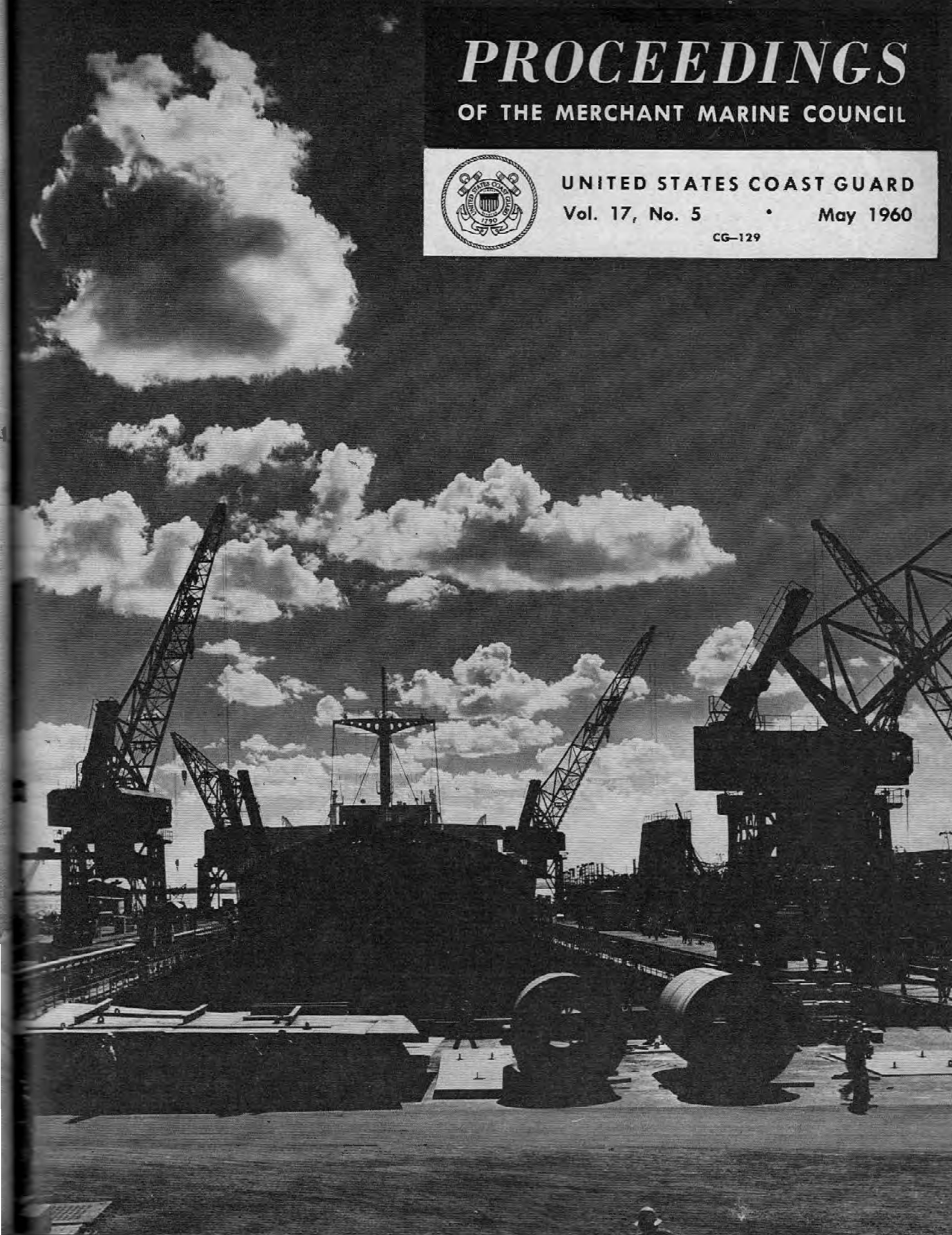


UNITED STATES COAST GUARD

Vol. 17, No. 5

• May 1960

CG-129



OF THE MERCHANT MARINE COUNCIL

Published monthly at Coast Guard Headquarters, Washington 25, D.C., under the auspices of the Merchant Marine Council, in the interest of safety at sea. Special permission for republication, either in whole or in part, with the exception of copyrighted articles or pictures, is not required provided credit is given to the Proceedings of the Merchant Marine Council. Use of funds for printing this publication has been approved by the Bureau of the Budget October 3, 1957.

The Merchant Marine Council of
the United States Coast Guard

**This Copy FOR NOT LESS THAN
20 Readers PASS IT ALONG**

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FRONT COVER

"Sway No. 10 at Dusk," an unusual photograph by Shipyard Staff Photographer Nixon of the tanker *Thetis* in graving dock. (Courtesy Newport News Shipbuilding and Dry Dock Co.)

CENTER FOLD

A reproduction of a new publication entitled *Atlantic Merchant Vessel Report System* which replaces *Instructions for Participation in Merchant Vessel Position Reporting Program*. This fold can be detached.

BACK COVER

U.S. Coast Guard Boating Stamp.

DIST. (SDL NO. 70)

A: a aa bcd (2); remainder (1)
B: n (35); c (16); e (5); f (4); h (3); g (2); remainder (1)
C: a b (less Quonset Pt.) c d e f g i m o u (1)
D: i (5); a b c d e f g h j k l (1)
E: o (New London only) (1)
List 141M
List 111

STATUS OF NUMBERING IN VARIOUS STATES UNDER THE FEDERAL BOATING ACT, 1958

AS OF APRIL 20, 1960

ALL BOATS of more than 10 horsepower operated on the navigable waters of the United States MUST be numbered under the Federal Boating Act of 1958. Thirty States with approved numbering systems have now assumed the function of numbering within their jurisdiction. These States are:

ALABAMA	INDIANA	NEW YORK	SOUTH CAROLINA
ARIZONA	KANSAS	NORTH CAROLINA	SOUTH DAKOTA
ARKANSAS	MICHIGAN	NORTH DAKOTA	TEXAS
CALIFORNIA	MINNESOTA	OHIO	UTAH
COLORADO	MISSOURI	OKLAHOMA	VERMONT
DELAWARE	MONTANA	OREGON	WEST VIRGINIA
FLORIDA	NEBRASKA	RHODE ISLAND	WISCONSIN
ILLINOIS	NEVADA		

Eight States have numbering systems under active consideration. All undocumented vessels used principally in the States of Georgia, Kentucky, Louisiana, Maryland, Massachusetts, Mississippi, New Mexico, and Virginia, are therefore temporarily exempt from Federal numbering by the Coast Guard until July 1, 1960, or until the State numbering system becomes operative, whichever occurs first.

The Coast Guard is presently numbering vessels in 12 States and the District of Columbia. Applicants for Federal Certificates of Number in Alaska, Connecticut, the District of Columbia, Hawaii, Idaho, Iowa, Maine, New Hampshire, New Jersey, Pennsylvania, Tennessee, Washington, and Wyoming may obtain application forms at their local Post Offices. The completed application form and a \$3 fee must be filed with the POST OFFICE. At that time a blue Federal Boating Stamp will be affixed to the application and a temporary certificate will be returned to the applicant. This certificate will serve as proof of compliance with the law until such time as the application has been processed by the Coast Guard.

UNITED STATES LINES REPORTS OUTSTANDING SAFETY RECORD AMONG SHIP CREWS



INSISTENCE upon the use of safety glasses while performing certain hazardous operation such as paint chipping is another safety practice aboard U.S. Lines ships.



SAFETY POSTERS are placed on bulletin boards and in other assembly areas aboard U.S. ships.

These photos were taken aboard the SS *American Importer*.

THE United States Lines' fleet of 2 passenger liners and 54 cargo vessels achieved an outstanding record for crew safety during 1959 with only 65 reportable injuries among an average fleet strength of some 4,400 officers and seamen.

Capt. Jones F. Devlin, vice president in charge of operations for the company, who made the announcement, said that the 65 cases represented a reduction in the accident frequency rate from 3.63 reportable injuries per 1 million man-hours worked in 1958 to 2.04 injuries per 1 million man-hours in 1959.

He explained that reportable injuries are those incurred in line of duty which prevent the seaman from meeting his next scheduled work assignment watch.

Captain Devlin singled out three ships and their officers and crews for particular praise. These were the SS *American Merchant* and the SS *American Reporter*, both in the company's North Atlantic services, and the SS *Pioneer Surf*, engaged in the long Australia run.

He said that the three ships had operated for two consecutive years without one reportable injury among them.

He also paid tribute to the officers and crews of 20 other cargo ships in

all services of the company, who sailed the entire year of 1959 without a single injury.

Completing his summary of accident frequency among ships of the cargo fleet, he reported that 28 freighters had one injury, 4 had two injuries, and 2 had three injuries.

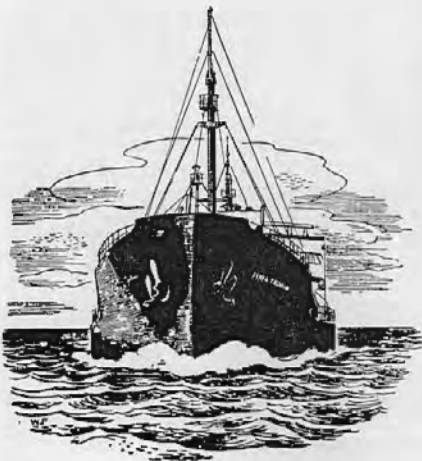
Commenting on the company's two

passenger ships, he said that the SS *America* had three reportable injuries during 1959 for an accident frequency rate of 0.497 per 1 million man-hours and the superliner *United States* had 20 time-loss accidents for a rate of 2.43.

Captain Devlin stressed that the injury record of the passenger liners was extremely low considering the fact that the SS *United States* has an average crew throughout the year of 1,040 officers and men, and the SS *America* carries an average of 660. The cargo vessels carry crews ranging from 47 to 57 men.

The operating vice president said that engraved plaques will be awarded to the *American Merchant*, *American Reporter*, and the *Pioneer Surf* and that scrolls will be presented to the SS *America* and the 20 accident-free cargo ships.

The United States Lines maintains a continuous shipboard safety drive utilizing such means as close supervision by officers of work activity at sea and at berth; the posting of safety literature on bulletin boards and in other assembly areas; brightly painted warnings in all potentially dangerous areas, and through safety meetings on every voyage, at which the crews are urged to call the attention of the officers to any hazardous conditions.



HURRICANE OFF MANZANILLO

A Report by Captain George N. Zeluff

Photographs by Mr. Jeffrey E. Shrum



THE TUNA CLIPPER *Mary Barbara*, 118 feet, 372 gross tons, after her return to Manzanillo on the morning of October 28, 1959. She encountered one of the most devastating eastern North Pacific hurricanes off that port on the previous day.

MY NAME is George Zeluff. I am Master of the MV *Mary Barbara*, and this is my report on the happenings aboard the MV *Mary Barbara* prior to, during, and directly after the storm that we encountered near Manzanillo, Mexico.

We were on our way from San Diego to Galapagos Islands to fish tuna. Although storms are not common this late in the year, we held close to the coast line of Mexico proceeding in the general direction of the Galapagos.

GATHERING STORM

On the morning of the 24th of October at 0545, the sea was perfectly calm when we passed abeam of Manzanillo light about 18 miles offshore. As we approached Point Telino, approximately 50 miles below Manzanillo, we received a weather report from San Francisco through KOK that there was a storm reported about 170 miles WSW of Acapulco whose track was WNW. I didn't like the looks of the sky. We had a very slight southeasterly wind which I thought was not going to let us slide through; that is, the storm would not let us pass between the mainland and the storm center. We turned around

and waited a few hours to see what might happen. The winds and clouds increased, and it looked as though the storm was building up. I felt it expedient to go to some port. With that in mind, I altered course to reach Manzanillo Harbor, where we arrived at 1830 (Zone 7 time), and were cleared by the officials. We went into the anchorage, let go the anchor, with considerable scope of chain, and awaited developments.

IN MANZANILLO HARBOR

The barometer was 29.84 when we arrived at the harbor. The sun shone brightly the following morning, but there were distant clouds on the horizon. The winds were southeast, Beaufort force 3; barometer 29.80. The storm was reported traveling on a west northwesterly course with wind velocities of 55 knots covering a 120 mile area from its center at 16.3° N., 103.7° W. An afternoon report from the San Francisco Weather Bureau plotted the storm at 17.4° N., 105.5° W., traveling west northwest at four to seven knots with the same wind velocity.

We moved to the southeastern side of the bay at 1600 and anchored in 6½ fathoms of water with 97 fathoms of

chain. It was partly cloudy to overcast with southeasterly winds of force 3 to 4 and a barometric pressure of 29.75.

The storm position message from San Francisco on 26 October reported the storm at 18° N. and 106.2° W. with similar weather conditions. The storm was expected to recurve to the north northwest within the next 24 hours. That morning at 0600 the barometer rose to 29.79. The wind was easterly force 4. By noontime, however, our barometer had fallen to 29.65 and in 3 hours to 29.60. At 1800 (Zone 7 time) the storm was reported at 18.7° N., 106.3° W. The wind was still easterly at 2100 with steady rain and a barometric pressure of 29.58.

At 2200 the wind was ESE, 6 to 10 (Beaufort Scale) with heavy rain. Our barometer was 29.55 and started to drop sharply after 2300, with the wind increasing proportionately. The wind reached hurricane force at 2400, ESE, with hail and rain, barometer 29.45. Fortunately we had double-lashed everything down before we entered Manzanillo in preparation for tough weather. Everything had been checked in a seamanlike way.

VESSELS ADRIFT

The Mexican ship *Corzo* dragged anchor and went adrift at midnight. We lost track of her in the rain. I assumed that she went on the breakwater and sank. Another vessel, the *Carbie*, dropped another anchor, but continued to drag.

I assumed that we could hold as we were, but had no idea what velocity the winds would reach, except for the reported 55 knots. The winds, however, were easterly at 75 m.p.h. at 0100. We attempted to raise the anchor in order to move closer to the ESE shoreline, but it was fouled in the mud and could not be moved. The barometer, at 29.35 was still dropping sharply. The *Santa Thomas* went adrift, and assumedly dragged into the breakwater. It was difficult to tell with the heavy rains. We continued to hold with greater scope of chain. The *Cacalilao* on our stern caused considerable concern. Were she to break loose, we would shortly close atop of them.

The harbor area is not a large one—it is confined to one basin. (You can consult your charts as to measurement). The *Xalapa* was anchored abreast of us to the East, and the *Jalisco*, a permanently stationed cement ship of about 3000 tons, was anchored in the Southeast section of the bay with two anchors forward and two anchors aft. She had no power except for lighting.

We were yawing quite heavily at 0200. I didn't like the way the *Mary Barbara* was riding to her anchor, so we attempted once more to heave up and move more closely to the East-southeasterly section of the bay, which offered greater protection, and to move a little bit away from the other ships. The barometer pulsated violently at 29.20 and the wind increased to 85 m.p.h. The *Xalapa* dragged her anchor and was swept before the wind like a chip of wood on the surface of the water. It was impossible to see any great distance with the rain coming down in a steady downpour. The radar was functioning well. The steering motor was in good shape, but we were still unable to raise the anchor. We had to be content with letting out more chain.

UP ANCHOR

The *Jalisco* drifted downwind and toward us at 0305. We veered back and forth, going toward her on one tack, and away from her on another. We tried to raise the anchor once again, for the *Jalisco* didn't appear to be drifting past us with sufficient room to clear. The winds held easterly at 85 m.p.h. with the barometer at 29.05

I didn't know how strong the winds would become. I kept looking for the wind to shift—an indication that the storm was passing.

The last, and by far the most damaging, of the tropical cyclones of the past season in the eastern North Pacific Ocean hit the port of Manzanillo in the early morning of October 27, 1959. Newspaper accounts reported approximately 340 deaths in the Mexican port, 400 in the village of Minatitlán, and 220 in scattered communities elsewhere. Five small Mexican merchant ships, one Mexican Naval vessel, and the 1800-ton Mexican vessel *Sinaloa* were lost with considerable loss of life. Sixty-five percent of the residential district and 90 percent of the business district in the port of Manzanillo was demolished. The towns on either side of the port for about 35 miles were either completely annihilated or flattened to some degree by the wind, floods, and landslides caused by the torrential rains. An account of the storm was published in the March 1960 issue of the *Mariners Weather Log*.

The accompanying article was taken from the narrative report submitted to the Coast Guard by Captain George Zeluff, Master of the tuna clipper *Mary Barbara*, in his Report of Marine Casualty. Captain Zeluff, through his fine seamanship and that of his crew, saved his ship from what could have been almost certain destruction. Photographs by Mr. Jeffrey E. Shrum, Chief Engineer.

ED.

The crew had been alerted to the fact that we had to get the anchor up in a hurry when the wind did change direction. I could see, however, at this time that there was no longer any point in trying to hang on as we were, for we were dragging our anchor and the *Jalisco* was crowding us. Our survival was in question. Either the *Jalisco* would ram us or we would drag into the breakwater.

Evidently the anchor broke loose from the mud this time, for we were able to avoid the *Jalisco* ahead of us, the *Cacalilao* astern, and raise the anchor simultaneously. I knew relatively where the vessels were despite the inability to see them from a greater distance than a few hundred feet.

With the anchor home, I kicked the boat slowly ahead allowing the wind to drift us eastward out of the harbor. The wind was of such velocity that were we to anchor and drag again, it would be difficult to turn the ship into the wind without making a long, wide circle and possibly encounter other vessels. I felt that it was a matter of survival to be able to maneuver and therefore proceeded out of the harbor. We had previously donned our life-jackets.

OUT OF THE HARBOR

The headlands behind Manzanillo, south or southwest of the breakwater, could offer some protection against the wind. I, therefore, proceeded to sea a little way, perhaps about half a mile in order to start working around



THIS VESSEL was caught at the dock when the hurricane struck.

toward the headland. This was probably about 0330 when the radar was still in operation.

After 0340 I had to approximate the location of land relative to the compass, for our radar went out. I knew that we were sideslipping, but attempted to work more or less in the direction of the headland. I had to be satisfied with tacking across the wind to the South, and to the North on another tack because we could not go directly into the wind without increasing revolutions to a point where we might take heavy seas over the bow and crush the wheelhouse windows.

The barometer had fallen to 28.50 at 0400. I estimated the force of easterly winds to be about 120 m.p.h. Heavy seas were breaking over the bow in the violent wind. We had to shout to each other to be heard in the wheelhouse. The Chief Engineer, Jeff Schrum, gave periodic checks of what was happening below. Everything there seemed to be in order, but topside we were losing gear—lifeboats, skiffs, hatch covers, and the like. We could keep steerageway at 235 or 245 r.p.m., but I was concerned about our sideslipping and leeway. I knew that we were not covering much distance ahead. The ship seemed to be riding fine with all the wells filled below and nothing in the boxes. It was just a matter of trying to stall for daylight when we could pick up some headland for a bearing.

IN THE EYE OF THE STORM

A crewmember reported a rocky headland on the starboard bow at 0415 or 0420 when the sky began to lighten

a bit. I saw the land about a quarter to a third of a mile away and changed course. We had been steering more or less to the Southwest when I altered course to put the headland as close as possible to our starboard quarter. The weather closed in again shortly after this and the winds became more violent. Undoubtedly, this was the "eye" of the storm passing over us.

From the time the "eye" passed over us about 0500, the winds quickly shifted from Easterly to approximately Southwest at 140 m.p.h. The barometer had risen to 28.45 from its 0415 low of 28.30. We were able to steer approximately Southeast and

CAPTAIN GEORGE NORMAN ZELUFF, shown here with a barogram of the hurricane taken aboard the *Mary Barbara*, has always been interested in going to sea. He has owned boats and has fished since his early teens. He graduated from the California Maritime Academy in 1944 and sailed as a deck officer for American President Lines during World War II. At the end of the war he resumed his commercial fishing career. He has been in command of the *Mary Barbara* since she was launched by National Steel and Shipbuilding in 1957. Captain Zeluff holds a Master's license for fishing vessels and an unlimited Chief Mate's license.

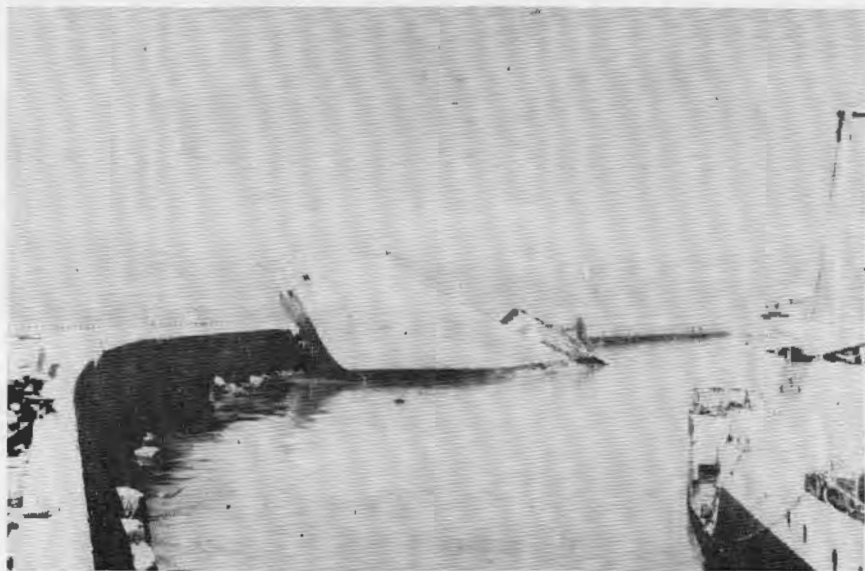


avoid the headland. The low pressure gave us a groggy, sleepy feeling, as though we had a heavy weight on our shoulders. The wind swung to the WSW at 150 m.p.h. by 0510. We jogged to the Southeast. There was no water in the bilge, but our speedboats were gone.

The wind and seas were most severe at 0600. A heavy swell destroyed our chartroom window. The entering waters flooded the decks and lockers and reached the radios. We stood in about six inches of water until about 0800. The water in the fo'c'sles was as high as the bunks. It was everywhere but in the bilges—even in the galley. It ran down the vents and stack and into the engine room. It's a wonder that the generators didn't go out.

The wind turned Westerly at 155 m.p.h. with heavy rain at 0700. We continued to take a beating. The barometer was 29.54 and rose to 29.65 within the next hour when the wind subsided to approximately 80 m.p.h. The rain had diminished and things were generally lightening up, but we could still not see any land. We knew, however, that the storm was moving away from us.

We were able to change course and swing around to work our way back to Santiago Bay, some 6 miles north of Manzanillo, at 1000. The barometer



A VIEW of the damage along the quay in the port of Manzanillo.

¹"The *Cacalillo*, in Manzanillo harbor, indicated a minimum barometer reading of 964 mb. before 1210 with east-southeast winds estimated at 135 knots. Salvaged wind instruments in Manzanillo showed winds reached a speed of 127 knots or 144 miles per hour. Wind speeds in the harbor may have been higher." Raymond C. Crooks, "Tropical Cyclones in the Eastern North Pacific, 1959," *Mariners Weather Log*, March 1960, p. 32.

was steady at 29.65, winds WNW, force 8-10. We anchored in Santiago Bay at 1120 to inspect the damage, but moved over to Manzanillo Harbor in the afternoon.

RETURN TO MANZANILLO

Upon arrival in Manzanillo we found that seven ships had been sunk. Five other vessels, including ours, were damaged to some extent. The town looked like an atoll that had been

bombarded by the Navy for 3 days. Sixty-five percent of the homes were gone; 90 percent of the business district demolished; and towns within a 35-mile radius either completely annihilated or flattened to a certain degree.

Some of us went ashore the following morning, October 28th, to take pictures and to inspect the damage. The *Mary Barbara* had been straightened up and made shipshape for a

return trip to San Diego for repairs.

We left Manzanillo at 0900, the 29th, but returned to port when we noted considerable vibration near the propeller area. A diver cut away the line he found around the shaft and propeller. There was no underwater damage. We departed before noon and noticed no appreciable vibration at various speeds on various courses during the uneventful voyage to San Diego.

GYROFIN STABILIZERS

Matson Lines' sister ships *Monterey* and *Mariposa* were able to spread their "water wings" for San Francisco maritime men during their recent annual inspection. The twin liners were the first U.S. passenger vessels to be equipped with "wings," a fond term for their Gyrofin Stabilizers, a modern and efficient device for reducing the rolling motion of ships at sea.

The *Mariposa*, ex-Pine Tree Mariner, completed a round trip between the West Coast and Australia and New Zealand, averaging slightly under 20 knots. She was at sea for 36 days and was stabilized for 28. Reports indicate the movement of the vessel averaged 2 to 2½ degrees from the vertical for most of the voyage.

In its simplest sense, stabilization against roll is accomplished by application of coupled forces on the ship, countering those forces imposed upon her by wave action. The Gyrofin system develops righting forces by lift generated by two hydrofoil fin surfaces positioned in a streamline. The fins are tilted by hydraulic piston and crank, and have an outreach of 14 feet, and a chord width of 7 feet. They are retractable; are swung into the hull by a system of rams and crosshead.

A few hours ahead of the *Mariposa*, also bound for Honolulu, was another Matson Navigation Company vessel, the SS *Hawaiian Planter*, a C-3, which in form and displacement is comparable to the Mariner hulled passenger ship. The *Planter's* Captain reported a 25 degree average roll, while the *Mariposa's* movement never exceeded three degrees.

The same installation has been installed in the USS *Compass Island*



THE FINS are located amidships, some 18 feet below the surface of the water. Each winglike fin extends 14 feet from either side of the hull with the maneuverable flap at its after edge. Photo courtesy Sperry Gyroscope Co.

(EAG-153) the Navy's experimental navigational ship. Reports indicate the device has reduced roll as much as 90%.

The new Grace Line passenger ships *Santa Rosa* and *Santa Paula* and Moore-McCormack Lines *Argentina* and *Brazil* have similar installations.



MARITIME SIDELIGHTS

A \$44 million contract for the construction of four C-3-S-46a type cargo ships for American Export Lines has been approved by the Maritime Administration. The machinery-aft vessels will be built in the National Steel & Shipbuilding yards, San Diego, Calif., with the first to be delivered within 960 calendar days and the fourth within 1,230 calendar days. American Export will trade in two of its "Four Aces," the SS *Erochorda* and SS *Excambion*, and two cargo ships in exchange for a cash credit on the project, it was announced.

Plans for the construction of a 20,000-ton tanker to carry liquefied methane will soon be submitted to the British Ministry of Power. An alternate plan for the building of two 10,000-ton tankers is also being considered. The plans will be submitted by the chairman of the British Gas Council, who reported that the first year's operations of the *Methane Pioneer*, capable of carrying 2,000 tons of gas, have been "spectacularly" successful.

American Export Lines has purchased the 18,100-ton U.S.-flag tourist class passenger liner *Atlantic* from American Banner Line, Adm. J. M. Will, president, announced. Starting in early May, the 880-passenger ship will sail every 30 days in express and cruise service between New York, Spain, Italy, Sicily, Greece, and Israel on a 12,000-mile cruise-type itinerary.

A \$2 million improvement program, blueprinted by the new owners to be started at once, will enhance the *Atlantic's* desirability for Mediterranean Service.

A contract for the construction of four cargo ships has been signed by the States Steamship Co. of San Francisco and the Federal Maritime Board with Newport News Shipbuilding & Dry Dock Co. according to the Mari-

COMMENDATION



MR. CARL SCHWEIZER and his son, Conrad, are shown receiving a letter of commendation for their courageous action in rescuing four persons from a burning vessel.

While pleasure boating in the San Rafael River, Mr. Schweizer and his son observed the burning of a boat with three persons aboard and one in the water. They recovered the person in the water first and without concern for their own safety pulled alongside the burning craft and removed three persons and their pet dog.

Vice Admiral A. C. Richmond, Commandant, USCG, in his letter of commendation concluded "But for the prompt and unselfish efforts * * * the lives of those aboard might have been lost. The high regard for the welfare and safety of others in the face of personal danger demonstrated by this action is deserving of the highest praise."

The Commandant's letter of commendation was presented in San Francisco by Commander F. A. Reicker, USCG (left), Chief, Merchant Marine Safety Division, Twelfth Coast Guard District, as Commander A. C. Hoene, Jr. (right) and Commander L. C. Walen witnessed the ceremony.

time Administration. The ships to be built for States SS Co. will be of the basic "Mariner" type, which are still the world's largest and fastest cargo ships. States SS Co. is currently operating two of the original "Mariners" from the U.S. Pacific Coast to the Far East.

Orient Mid-East Great Lakes Serv-

ice will inaugurate voyages between Far East ports and those in the St. Lawrence and U.S.-Canadian Great Lakes, according to Eagle Ocean Transport. Regular monthly sailings will be maintained with fast modern liner-type vessels. All vessels of the line have deep-tank space and limited passenger accommodations.



ATLANTIC MERCHANT VESSEL REPORT SYSTEM (AMVER)

Revised January 1960—Replaces 3d Edition, 1 August 1958



The Atlantic Merchant Vessel Report System was established to improve search and rescue coordination efforts at sea. AMVER has proven itself due to the wholehearted participation by the merchant vessels of many nationalities. The traditional interest of mariners to improve safety at sea is a keystone factor. The suggestions offered by participants are most welcome and have resulted in over-all improvement.

As AMVER is mutually beneficial to all, continuous and active support by mariners who sail the North Atlantic is essential. The cooperation of all merchant vessels to extend the benefits of AMVER is requested and appreciated.



Nothing contained here is intended to conflict in any way with the provisions of the International Safety of Life at Sea Convention currently in force.

UNITED STATES COAST GUARD
TREASURY DEPARTMENT

GENERAL INSTRUCTIONS

The National Search and Rescue (SAR) Plan designates the U.S. Coast Guard as the agency responsible for coordinating rescue operations in the Maritime SAR Regions. In fulfilling this responsibility in the Atlantic Maritime SAR Region (outlined on back cover) the U.S. Coast Guard has taken advantage of the latest electronic equipment and established the Atlantic Merchant Vessel Report System, known as AMVER.

WHAT IS AMVER?—AMVER is a system consisting of a ships plot center provided with direct communication to all Coast Guard Radio stations and Rescue Coordination Centers serving the Atlantic Maritime SAR Region. This system receives position reports submitted by merchant vessels. Then by means of electronic equipment the dead reckoning positions of the ships at sea near a distress incident can be quickly predicted. Hundreds of merchant vessels are sailing the North Atlantic. These vessels have the proven potential for early arrival, so necessary during a distress. AMVER therefore, is based upon the voluntary participation by all merchant vessels of every nationality sailing the Atlantic north of the Equator and west of the 15th Meridian.

The purpose of AMVER is to increase the potential for the saving of lives and property by the earliest possible arrival of assistance at the distress scene and by this speedy resolution of distress cases to enable early release of other vessels proceeding in response to the distress signal. This purpose is best fulfilled if each merchant vessel sailing the North Atlantic Maritime Region keeps the U.S. Coast Guard periodically informed of its movements while at sea. This information can be kept up to date with very few AMVER messages. The electronic equipment automatically erases a vessel's position data each time the vessel enters port or leaves the AMVER plotting area.

HOW IS AMVER USED?—The Ships Plot Center located in New York at the Customs House maintains positions, courses, and speeds of ALL reporting vessels sailing the Atlantic Ocean North of the Equator, and West of the 15th Meridian. With this information available efficient coordination and utilization of the vessels nearest to an emergency at sea is possible.

The Ships Plot Center also maintains published important data on vessels such as: whether or not they carry a doctor, have radar, the normal radio watches, the names of the owners or agents, etc. This information, together with the position information, is available within minutes when needed. A frequent use of the system is to advise a vessel with an emergency medical case of the position of the closest ship with a doctor aboard.

AMVER information is made available only when needed and will not be made public except when necessary for search and rescue purposes. The purpose of AMVER is to assist in saving life and property at sea. AMVER messages are, therefore, comparable to safety type messages.

HOW TO PARTICIPATE?—All vessels with one or more radio officers, sailing the Atlantic Ocean North of the equator and West of the 15th Meridian, including the Gulf of Mexico and Caribbean Sea, are invited to participate when communications with any radio station listed on the following page can be established. Every vessel is urged to participate particularly when within the Atlantic Maritime SAR Region. Vessels are requested to send AMVER messages in the form shown on the next page titled *Breakdown of Text of AMVER Messages*. There are four (4) types of message: Type 1, D, 2, and 3. The plot of a vessel

begins when the Type 1 AMVER is received and ends when the vessel reaches the end of its ocean sailing.

MESSAGES ARE REQUESTED AS FOLLOWS:

Type 1.—When eastbound or on coastwise voyage. Upon departing from the harbor entrance of any port north of the Equator (including Colon when coming from the Pacific). When westbound. On crossing either of the outer AMVER REPORT LINES (see chart back page) or sooner if communications permit. Type 1 AMVERs should include all 9 parts of text as shown on next page.

Type D.—When 25 miles or more from projected dead reckoning position as reported in previous AMVER. This is a corrective message for changes for any cause; as storm delays or new destination, etc. Text need only include parts changed from previous report.

Type 2.—When crossing 67th Meridian in either direction. This is necessary to verify accuracy of generated position data. Text may omit parts 6, 7, 8, and 9 if unchanged since previous report.

Type 3.—When arriving off harbor entrance of any American port north of the Equator westbound or coastwise; or crossing either of the outer AMVER report lines eastbound. Text may omit parts 6, 7, 8, and 9.

WHAT CHARGES ARE INVOLVED?—It is not intended that merchant vessels send AMVERs outside of regular radio watch periods. In order to insure that no coast station or landline charges are applied, all AMVERs should be passed through government radio stations shown on next page. If messages are relayed through Coast Guard ships no ship charge will be assessed by the Coast Guard. It is emphasized that the Coast Guard cannot pay any charges on this type of message, nor will the Coast Guard charge the ships for handling AMVERs.

COOPERATIVE BENEFITS OF AMVER.—Title 33, Section 124.10, U.S. Code of Federal Regulations, requires the master or agent of every foreign vessel and each U.S. documented vessel prior to arriving at a United States port to give at least 24 hours notice of arrival to the Coast Guard Captain of the Port concerned. For vessels entering the Great Lakes bound for a U.S. port, the master or agent is required to notify Commander, Ninth Coast Guard District immediately upon entry into Lake Ontario when inbound.

To encourage participation in the AMVER program, the master's AMVER message will be considered as being in constructive compliance with Title 33, Section 124.10. Upon receipt of the AMVER message, Coast Guard New York will notify the proper Captain of the Port except in those cases where a vessel is bound for a U.S. Great Lakes port when an arrival report is required upon entry to Lake Ontario.

TO WHOM ARE AMVER MESSAGES ADDRESSED? All AMVER messages should be addressed to: COAST GUARD NEW YORK, and sent via any radio station listed next page.

Further information concerning this program may be obtained by writing or visiting Commander, Eastern Area, U.S. Coast Guard, Custom House, New York, N.Y. or by writing Commandant, U.S. Coast Guard, Washington 25, D.C. Additional copies of this publication may be obtained from any Coast Guard District Office, Captain of the Port, or Marine Inspection Office at U.S. Atlantic or Gulf Coast ports.

BREAKDOWN OF TEXT OF AMVER MESSAGES

1	2	3	4	5	6	7	8	9
NAME	CALL SIGN	REPORT TYPE	POSITION	DATE-TIME	SAILING ROUTE	SPEED	DESTINATION	ETA
Name of vessel . .	Radio call	1, D, 2, or 3. (See p. 2.)	Latitude and longitude to nearest tenth degree (name of point may be used where convenient. i.e. Ambrose)	Date-Time GMT of position. (Use 6 digits, i.e. 041800 where first 2 is date of month and last 4 are GMT hours and minutes.)	Latitude and longitude to nearest 0.1 degree of each turn point along intended track. Use "RL" for rhumb line, or "GC" for great circle before each point to show method of sailing. When track is to be coastal, state "coastal" for that part of route.	To nearest 0.1 knot.	Next port of call. (Note: for U.S. port located inland, it is recommended that the off-shore point i.e. Cape Henry, etc. be given.)	Estimated time of arrival at destination. Use GMT date and time

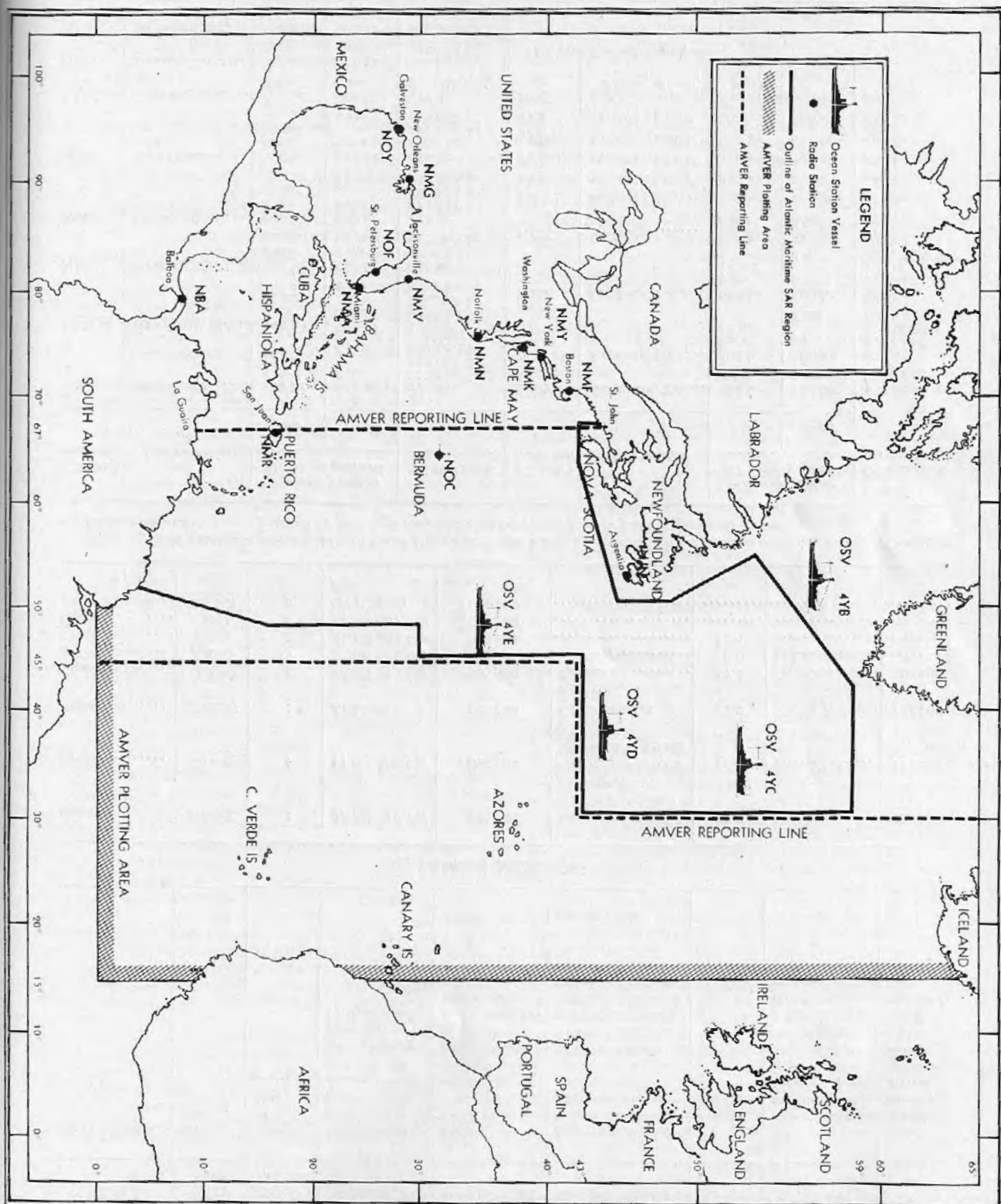
SAMPLE MESSAGES

<i>Imperial St. Lawrence</i>	HOOX	1	43.5N 70.1W	281100	RL 41.6N 69.7W RL via Windward Passage RL.	15.7	Colon	030900
<i>Parthia</i>	GSWQ	1	51.0N 10.3W	092300	GC 42.0N 50.0W RL 40.5N 69.5W RL.	16.5	New York	151100
<i>Argentina</i>	WMDU	1	Ambrose	061300	GC Equator at 37.0W	23.0	Rio de Janeiro.	160100
<i>Sagami Maru</i>	JJGF	1	40.5N 73.3W	301300	Coastal RL	17.1	Overfalls	301800
<i>J. L. Luckenbach</i> . .	KAEO	D	31.0N 78.0W	261500	.....	9.0	In heavy seas . . . . .	.....
<i>Groote Beer</i>	PELA	2	39.1N 67.0W	061400	.....	15.4	.....	.....
<i>Godafoss</i>	TFMA	2	42.4N 67.3W	232300	.....	.....	.....	.....
<i>Alcoa Pilgrim</i> . . .	KKVZ	3	QTP South Pass	000100	.....	.....	.....	.....

WHO ACCEPTS AMVER MESSAGES?—A list of U.S. Coast Guard Radio Stations and Ocean Stations accepting AMVER messages; the frequencies and/or bands guarded by each, and their working frequency in each band is tabulated below:

CG unit's radio call	Unit's location	Frequency and/or HF bands guarded		CG unit working frequency	CG unit's radio call	Unit's location	Frequency and/or HF bands guarded		CG unit working frequency
		Day	Night				Day	Night	
NMF	Boston, Mass. . . .	500 kc 8 mc 12 mc	500 kc 8 mc 6 mc	472 kc 8710 kc 12718.5 kc 6477.5 kc	NOY	Galveston, Tex. . .	500 kc 8 mc 8 mc	500 kc 8 mc 8 mc	457 kc 8710 kc 427 kc
NMY	New York, N.Y. . . .	500 kc 8 mc 16 mc	500 kc 8 mc 4 mc	486 kc 8710 kc 17002.4 kc 4361 kc	NJN	Argentina, Nfld. . .	500 kc 8 mc 12 mc	500 kc 8 mc 6 mc	427 kc 8734 kc 12718.5 kc 6477.5 kc
NMN	Norfolk, Va.	500 kc 8 mc 12 mc	500 kc 8 mc 12 mc	466 kc 8710 kc 12718.5 kc	NMR	San Juan, P.R. . . .	500 kc 8 mc 12 mc	500 kc 8 mc 4 mc	466 kc 8710 kc 12718.5 kc 4361 kc
NMA	Miami, Fla.	500 kc 8 mc 16 mc	500 kc 8 mc 12 mc	440 kc 8710 kc 17002.4 kc 12718.5 kc	NOC	Bermuda	500 kc 8 mc 8 mc	500 kc 8 mc 500 kc	466 kc 8734 kc 470 kc
NMG	New Orleans, La. . .	500 kc 8 mc 12 mc	500 kc 8 mc 4 mc	428 kc 8710 kc 12718.5 kc 4361 kc	NBA ¹	Balboa, C.Z.	500 kc	500 kc	466 kc
NMK	Cape May, N.J. . . .	500 kc 8 mc	500 kc 8 mc	457 kc 8710 kc	4YB	56.30N 51.00W	500 kc	500 kc	466 kc
NMV	Jacksonville, Fla. .	500 kc 8 mc	500 kc 8 mc	457 kc 8710 kc	4YC	52.45N 35.20W	500 kc	500 kc	466 kc
NOF	St. Petersburg, Fla.	500 kc	500 kc	440 kc	4YD	44.00N 41.00W	500 kc	500 kc	466 kc
					4YE	35.00N 48.00W	500 kc	500 kc	466 kc
					NCG	Any CG shore Radio Station.	Any of the above bands	Any of the above	As listed above

¹ U.S. Navy Communication Station.





nautical queries

Q. Describe and give the advantage of the double trunk type piston used in many refrigeration compressors.

A. The double trunk piston is a cored, elongated piston which is open at the sides for free entry of the refrigerant from ports cut into the cylinder wall. Both ends of the piston are sealed against the passage of the gas but the piston head contains a nonreturn suction valve. The advantage of this type of piston is that the refrigerant is admitted directly to the cylinder block and is not in direct contact with the crankcase lubricating oil.

Q. Define:

- (a) Latent heat.
- (b) Latent heat of fusion.
- (c) Latent heat of vaporization.

A. (a) When the temperature is reached at which heat added or subtracted does not cause further change in temperature of a substance, as at the freezing or boiling point, a change of state takes place upon further addition or subtraction of heat. The heat necessary to cause one pound of a substance to change its state at the boiling or freezing temperature is known as latent heat.

(b) The heat necessary to cause 1 pound of a substance to change its state from a solid to a liquid at its freezing temperature, or vice versa, is known as the latent heat of fusion.

(c) The heat necessary to cause 1 pound of a substance to change its state from a liquid to a gas at its boiling temperature, or vice versa, is known as the latent heat of vaporization.

Q. On 3 May, at 0300 g.m.t., a radio time signal shows chronometer "B" to be 4m-15s fast.

On 5 May, at 1100 g.m.t., a radio time signal shows chronometer "B" to be 4m-22s fast.

On 7 May, at 0300 g.m.t., an observation was taken. Assuming a constant chronometer rate, what correction should be applied to chronometer "B"?

A. (—) 4m-27s.

Q. On 14 August, at 0700 g.m.t., a radio time signal shows chronometer "B" to be 00m-12s fast.

On 17 August, at 0300 g.m.t., a radio time signal shows chronometer "B" to be 00m-05s slow.

On 17 August, at 1500 g.m.t., an observation was taken. Assuming a constant chronometer rate, what correction should be applied to chronometer "B"?

A. (+) 00m-08s.

Q. (a) What precautions should be taken with respect to portable stanchions on a gangway or accommodation ladder?

(b) In using an accommodation ladder at anchor in a seaway, how can boats be prevented from getting under the ladder due to their rising and falling with the waves?

(c) What objection could be raised to a number of men such as troops marching in step up a gangway?

A. (a) Portable stanchions should have pins or toggle bolts securing them in their sockets to prevent their being accidentally withdrawn.

(b) A stout timber lashed or otherwise secured to the lower-outside end of the accommodation ladder or platform and extending down into the water will prevent boats getting under the gangway.

(c) Troops or other bodies of men coming up a gangway should break step as rhythmic marching could create stresses far in excess of that due to the weight of the men.

Q. (a) Name at least three different types of bushings found in block sheaves on vessels of the American Merchant Marine, and tell the various methods for lubricating sheaves?

(b) When a tackle is rigged to lift a weight, does the greater weight come on the upper standing block or the lower moving block?

A. (a) Plain or iron bushed, bronze bushing, roller bushing, ball bearing bushing, self-lubricating iron or bronze bushings, and sealed roller or ball bearing bushings. (Any three). Blocks may be fitted with hollow pins and lubrication fittings on the pin, or it may be necessary to remove the pins for periodic lubrication. Sheaves also may be found with fittings on the sheave hubs where these are accessible for lubrication.

(b) The upper standing block will receive the greater weight because it has not only the weight to hold but also the hauling stress applied.

Q. Describe briefly the dangers that may arise when carrying goods of a hygroscopic or deliquescent nature.

A. Goods of a hygroscopic or deliquescent nature are those capable of absorbing moisture. Where such goods may absorb large quantities the reserve buoyancy (freeboard) of the vessel may be considerably reduced and the stability adversely affected. Deck cargoes of lumber are a common example of the latter case.

Some commodities when exposed to large amounts of moisture will expand in volume and exert pressure on the confining bulkheads and decks. Wet grain is an example of this.

Where hygroscopic commodities are dried prior to shipment, any ventilating air introduced should be of sufficiently low relative humidity that the commodity cannot increase its moisture content.

Certain commodities upon being exposed to moisture will heat. Quicklime is a common example.

Q. A vessel loading at a foreign port must load 100 metric tons of a commodity. If a metric ton is 0.98421 long ton, how many long tons are there in 100 metric tons?

A. If a metric ton is 0.98421 long ton, there are 98.421 long tons in 100 metric tons.

Q. What care should be taken to avoid sweat damage when stowing cargo in a deep tank not fitted with ventilation?

A. When stowing cargo in a deep tank not fitted with ventilation, to avoid sweat damage the lids or covers should be left open sufficiently to provide ventilation from the hold, unless safety requirements due to the ship's construction or incompatible types of cargo make this impossible. Under these conditions, care should be taken to use the deep tanks for a cargo least susceptible to sweat damage, and a type of cargo which does not generate heat or dangerous gases should be selected. Hygroscopic chemicals, such as silica gel, may be placed in an open container to absorb free moisture from the air before it affects the cargo in order to minimize danger or sweat damage. Adequate dunnage or flooring may be necessary to protect steam coils, or other special fittings, and to afford good drainage for any condensate.

MACHINE TOOLS

IN SPITE of all that has been done to make machine tools safe by advanced designing and sturdy construction, safe work practices must still be relied on to protect those who use this equipment.

Machine tools such as lathes, drills, grinders, etc., all have several points in common which are constant sources of injury unless special precautions are taken when working with them. For example they all employ driving power; their tools have sharp cutting edges; they have dangerous moving parts, and they throw off flying particles in the form of chips.

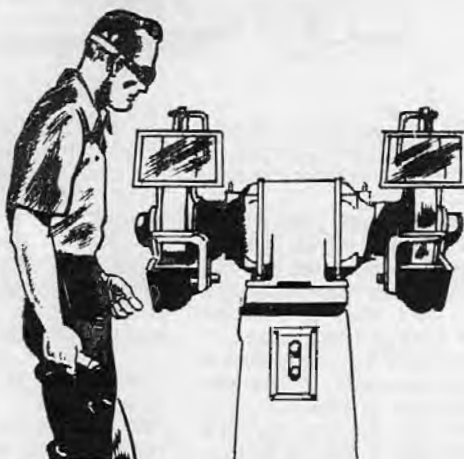
Many protective devices in the form of hoods, guards, shields, goggles, etc., are furnished to prevent injuries from these hazards, but as the accident reports indicate, they are often ignored. This is particularly true with regard to eye hazards, where the protection afforded by goggles or face shields is often disregarded because of the inconvenience caused by wearing them. Many injuries also occur from failure to replace guards after inspections and maintenance work, or the failure to ascertain if guards are in place before power is turned on the machine.

Electrical hazards must also be guarded against while operating machine tools, since these machines are generally driven by individual electric motors. Breaks in insulation on electrical controls are particularly dangerous in working with this equipment.

Most injuries which result from machine tool operations occur at the point-of-operation. That is, while actually drilling, grinding, or turning down a piece of metal. Grinding wheels are generally well protected at these points by hoods, flanges, eye shields, tool rests, etc. Certain moving parts on lathes and drills also have protective coverings over them, but generally more caution is required in adjusting and turning out the actual work with these latter two power-driven tools. Safe work practices are of paramount importance.

In lathe operations there are several factors which will reduce injuries if kept in mind. It is quite obvious that loose clothing should not be worn while working around these machines. If loose clothing catches on revolving machinery or work a serious injury may result before the tool can be stopped. Care must also be taken to guard against any bodily contact with moving parts of the lathe. Several precautions in this connection

DO



DO stand to one side of grinding wheel when first starting machine. If the wheel is defective it may break when starting up. Make sure that the correct type of abrasive wheel is used for the job to be performed. Check wheel speed and machine speed.



DON'T stand immediately in front of a grinding wheel when first starting it. A defective wheel is likely to break when starting and you may get severely hurt. In wet grinding, never permit a wheel to stand partially immersed in water, as the absorbed water will unbalance the wheel and possibly cause it to break while in operation.

are particularly worthy of note. For example, the hands should never be placed on the lathe face plates or chucks when the machine power is on, nor should chips be removed by hand from this machinery. Particular caution should also be exercised when adjusting the chuck.

One seaman received a badly cut finger while performing this task when he accidentally bumped the switch and engaged the motor of a

lathe. As the chuck moved, his finger was caught between the chuck wrench and the bed of the lathe.

Another important item to remember in this connection is that the deck in the vicinity of machine tools must be kept clear and clean, and especially free of oil and grease. Many injuries result from slips and falls while operating machine tools which are charged to poor housekeeping practices. A true picture of the acci-

dent rate of these power-driven tools is therefore not always gained by reading accident statistics.

Because of the severity of the injuries that may result from operating grinding wheels, or abrasive wheels, the operator of this equipment must be on guard at all times. The chief hazards of these tools include flying particles which may result in eye injuries, contact with the revolving wheels, and bursting abrasive wheels. Injuries resulting from this latter cause, though not too common, are generally quite severe. For this reason abrasive wheels should be carefully inspected before being used. The operator should also test the wheel before using it by running it for a short period, and at the same time standing clear in case an undetected crack causes the wheel to fly apart.

Because of the severity of the injuries that may result to the operator of grinding machines, they are generally equipped with a number of protective devices. In order to protect, however, guards must be kept in place and utilized. A hood that has been removed from a grinding wheel serves no purpose nor do goggles hanging on a peg. Tool rests which are too far from the wheel may cause wheel breakages and injuries to operators by permitting the work to become wedged between this work rest and the wheel. The work rest should also be adjusted as the wheel wears down, but this should never be done while the wheel is in motion.

Because abrasive wheels may become cracked by careless handling prior to mounting they should be checked carefully after being unpacked. One method used to test such wheels is to suspend them free and clear, and then tap them lightly with a wooden instrument. If the wheel is sound it will give forth a clear metallic tone when tapped.

Grinding wheels should give little trouble if care is exercised in handling them and if the proper safeguards are utilized. The operator of course must also be properly trained so that he knows how to operate the tool correctly and safely.

Another machine tool which causes injuries to personnel aboard ship is the power drill. Generally these injuries occur as a result of contact with the revolving drill or by being struck with the material being drilled. Operators at times attempt to hold small jobs in their hands while drilling; such practice often results in severe injuries. Where precautions are not taken to prevent material from turning with the drill injuries may also result. While the drill is in operation is no time to attempt to clamp such material down.

The drill should also be stopped for cleaning purposes, and the chips should be removed with a brush. Removing them by hand is dangerous since these chips are sharp and may cause injuries and subsequent infection. Care should also be taken to guard against flying chips while operating the drill by wearing goggles or a face shield.

The operator of the drill must also depend to a considerable extent on his own safe working practices for his personal protection. This is particularly true of the actual drilling operation. For example, unless a telescope guard is placed over the work extra caution to protect oneself from possible injury from a broken drill should be taken. In this connection only straight, undamaged drills, properly sharpened and cut to the right size should be used.

It is evident from the above that machine tool hazards can be controlled to a large extent. This can be done by maintaining guards on all machine tools, and seeing that personnel fully understand the operation of a machine before they are permitted to work with it.

This is important aboard ship where crew changes continually take place. A new man should therefore receive extra training and supervision until it is ascertained that he understands the operation of a particular machine tool, and also demonstrates that he can and will exercise safety precautions when working with it. Proper instruction, adequate training, and good supervision along these lines will do much to decrease injuries from machine tools.

Other factors which will reduce machine tool accidents are proper lighting and good housekeeping practices in the work areas. Thorough inspection and proper maintenance of these tools will also reduce injuries providing all defective parts are repaired or replaced as soon as discovered.

A thorough knowledge of the hazards of machine tools and of the corrective measures for reducing injuries from such hazards is of value only if this knowledge is utilized. Much has been done to construct these machines so that personnel operating them are protected as much as possible from moving parts. However, the basic hazards at the point-of-operation have changed little. It is here that much depends on how much safety knowledge the operator possesses and utilizes by adhering to safe work practices. For machine tools, like all other machinery, are safe only when operated safely.

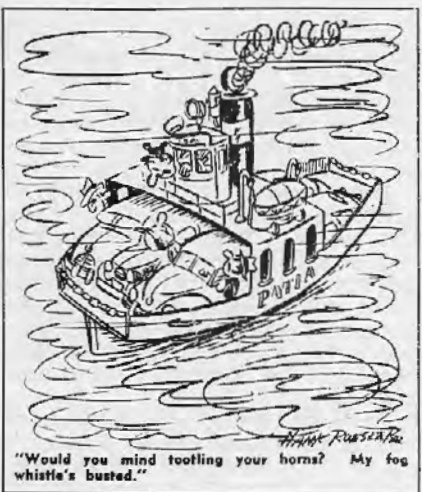
HAND TOOLS

No truer words can be said than "use the right tool the right way." Most hand tool accidents follow the general pattern of all accidents; that is, they are traceable to improper use.



Do not attempt to tackle the job without the proper tool. Electrical tools should be properly grounded, tools that are used aloft should have a lanyard attached, etc. Attempting to improvise or use the wrong gear, you are looking for trouble. All our vessels are completely equipped with proper hand tools to meet all requirements. Broken and worn tools should be replaced.

Courtesy Isthmian Lines Safety Bulletin



Courtesy Maritime Reporter

PROCLAMATION 3342
NATIONAL MARITIME DAY, 1960

BY THE PRESIDENT OF THE UNITED STATES OF AMERICA

A PROCLAMATION

WHEREAS ships that fly the flag of the United States serve our people in trade, commerce, and defense; and

WHEREAS American shipping is pioneering in the scientific development which this year will witness the harnessing of the atom for the benefit of mankind as the world's first nuclear-powered merchant ship, the N.S. Savannah, sails out upon the high seas; and

WHEREAS a strong United States Merchant Marine is essential to the economy and security of the free world; and

WHEREAS the Congress, by a joint resolution approved May 20, 1933 (48 Stat. 73), designated May 22 as National Maritime Day, in commemoration of the departure from Savannah, Georgia, on May 22, 1819, of the S.S. Savannah on the first trans-oceanic voyage by any steamship, and requested the President to issue a proclamation annually calling for the observance of that day; and

WHEREAS May 22 falls on Sunday this year, it is appropriate that National Maritime Day be observed on the following Monday:

NOW, THEREFORE, I, DWIGHT D. EISENHOWER, President of the United States of America, do hereby urge the people of the United States to honor our Merchant Marine on Monday, May 23, 1960, by displaying the flag of the United States at their homes or other suitable places; and I direct the appropriate officials of the Government to arrange for the display of the flag on all Government buildings on that day.

I also request that all ships sailing under the American flag dress ship on Monday, May 23, in tribute to the American Merchant Marine.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the Seal of the United States of America to be affixed.

DONE at the City of Washington this first day of April in the year of our [SEAL] Lord nineteen hundred and sixty, and of the Independence of the United States of America the one hundred and eighty-fourth.

DWIGHT D. EISENHOWER

By the President:

CHRISTIAN A. HERTER,
Secretary of State.

[F.R. Doc. 60-3225; Filed, Apr. 5, 1960; 2:29 p.m.]

**CLIMATOLOGICAL AND
OCEANOGRAPHIC ATLAS
FOR MARINERS**

Ships cooperating in the Weather Bureau's Marine Observation Program may now obtain a copy of *A Climatological and Oceanographic Atlas for Mariners*, Vol. I, North Atlantic Ocean, the first of a series to be published by the Bureau's Office of Climatology and Division of Oceanography in cooperation with the U.S. Navy Hydrographic Office.

The atlas represents a summary of modern man's knowledge of the marine environment, encompassing both the atmosphere and the hydrosphere. It has been designed with the merchant mariner specifically in mind, as a handy reference that can be placed in the book rack with other navigation publications in the chartroom and is readily adaptable for desk-top stowage.

The charts of this atlas endeavor to provide the mariner with the necessary tools for advance planning. They give information on conditions to be expected in the North Atlantic that may profit the seafarer. It is realized that it would be impossible to cover every item of interest to individual mariners or to each industry; but some treatment is presented on all topics considered to be of use to those who operate, live, or work on the sea.

The publication may be obtained at the Weather Bureau's Marine Offices in New York, New Orleans and San Francisco.

MERCHANT MARINE STATISTICS

There were 938 vessels of 1,000 gross tons and over in the active oceangoing U.S. merchant fleet on March 1, 1960, according to the Maritime Administration. This was seven less than the number active on February 1, 1960.

There were 37 Government-owned and 901 privately owned ships in active service. These figures did not include privately owned vessels temporarily inactive, or Government-owned vessels employed in loading grain for storage. They also exclude 26 vessels in the custody of the Departments of Defense, State, and Interior.

There was a decrease of 13 active vessels and an increase of 9 inactive vessels in the privately owned fleet. A tanker, *Ocean Ulla*, was delivered

from construction and a freighter, *Trans Gulf*, was reconstructed from a tanker hull. One combination ship and five freighters were traded in to the Government on new construction. This made a net loss of 4, or a total privately owned fleet of 1,018. Of the 117 privately owned inactive vessels, 53 dry cargo ships and 52 tankers were laid up for lack of employment, 11 more than on January 1. The others were undergoing repair or conversion.

The Maritime Administration's active fleet increased by 6, while its inactive fleet decreased by 10. Seventeen Liberty ships were sold for scrap. Three vessels were transferred to the Navy. Ten Navy-owned ships were placed in reserve fleet custody. This made a net loss of 4 in the Adminis-

tration's fleet, or a total of 2,044. The total U.S. merchant fleet decreased by 8 to 3,062.

Seven new freighters were ordered, and one passenger ship conversion. One new tanker, and three conversions—a passenger ship, container-ship, and a bulk carrier—were delivered for U.S. flag. The total of large merchant ships on order or under construction in U.S. shipyards increased by 4 to 71.

Seafaring jobs on active oceangoing U.S.-flag ships of 1,000 gross tons and over, excluding civilian seamen manning Military Sea Transportation Service ships, were 48,366. Prospective officers in training in Federal and State nautical schools numbered 2,040.

AMENDMENTS TO REGULATIONS

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

TITLE 46—SHIPPING

Chapter I—Coast Guard, Department of the Treasury

[CGFR 60-8]

FUSIBLE PLUGS FOR BOILERS; EXAMINATION SUBJECTS FOR DECK OFFICER LICENSES; AND CREW REQUIREMENTS FOR UNINSPECTED VESSELS

The miscellaneous amendments in this document revise and bring up-to-date certain procedures, reduce certain requirements affecting the public, or set forth interpretations used as a basis for administration or enforcement of certain inspection laws.

With respect to fusible plugs for boilers, the amendments to 46 CFR 2.20-40(c), 52.70-40, and 67.50-20 and the cancellation of 46 CFR 61.45-20 revise procedures and reduce certain requirements. In lieu of requiring the Chief Engineer to submit a completed Form CG-945 (Report of Chief Engineer on Fusible Plugs Inserted in Boiler) whenever fusible plugs are renewed, the revised amendments will require the Chief Engineer to report by informal letter only when fusible plugs are renewed under emergency conditions and no Coast Guard marine inspector reported on such renewal. In practice it was found that the fusible plug requirements in 46 CFR 52.70-40 had been followed in most instances. The other changes made therefore will provide the same manufacturing requirements for fusible plugs used in boilers built prior to 1935 as now apply to fusible plugs used in boilers built after 1935, so that the requirements for all fusible plugs will be the same.

Regarding the examination subjects for deck officer licenses, the amendment to 46 CFR 10.05-45(b) revised Table 10.05-45(b) (Subjects for deck officers of ocean or coastwise steam or motor vessels) with respect to "traverse sailing" (item 7) and "signaling by semaphore" (in item 22). In lieu of the specific subject "traverse sailing," a number of problems regarding such things as compass error, correction for currents, time, speed and distance, etc., are provided under the general subject "chart navigation."

The subject "signaling by semaphore" is discontinued because this method of communication is now used very seldom in the merchant marine.

A number of casualties with serious loss of life have occurred when uninspected barges were carrying passengers for hire and while being towed by motorboats. One of the factors noted in these casualties was the failure to have licensed motorboat operators in charge of the towing motorboats as required by law. In order that owners or operators of motorboats or uninspected vessels towing barges carrying passengers may be informed of the necessity to have qualified operators in accordance with law on the towing motorboat or vessel, the amendment to 46 CFR 157.30-30 describes in greater detail the interpretation placed on section 7 of the Act of April 25, 1940, as amended (46 U.S.C. 526f), as to when Coast Guard licensed motorboat operators may be required. In addition 46 CFR 28.25-1 is amended and 46 CFR 26.25-5 is added to the "Rules and Regulations for Uninspected Vessels," which describe the crew requirements for uninspected vessels under certain conditions when laws administered by the Coast Guard require vessels to carry certain types of qualified personnel. Appropriate references are made to these laws which apply if uninspected vessels of certain size or type engage in activities as specified in these laws.

Because the amendments in this document are editorial, interpretations, or relaxations from existing requirements, it is hereby found that compliance with the Administrative Procedure Act (respecting notice of proposed rule making, public rule making procedure thereon, and effective date requirements thereof) is deemed to be unnecessary.

(Federal Register of March 17, 1960)

TITLE 33—NAVIGATION AND NAVIGABLE WATERS

Chapter I—Coast Guard, Department of the Treasury

SUBCHAPTER E—NAVIGATION REQUIREMENTS FOR THE GREAT LAKES AND ST. MARY'S RIVER

[CGFR 60-14]

PART 92—ANCHORAGE AND NAVIGATION REGULATIONS; ST. MARY'S RIVER, MICHIGAN

Reporting Procedures for Vessels Passing Through Middle Neebish Channel

The West Neebish Channel is temporarily closed to traffic to permit deepening of the channel by dredging.

This will require two-way traffic in the Middle Neebish Channel. The amendment to 33 CFR 92.26 in this document revises the reporting procedures for vessels passing through the Middle Neebish Channel, and are intended to provide information for traffic control for the St. Mary's River and the St. Mary's Falls Canal and Locks, as well as to permit downbound vessels to make "Securite Calls," when abeam of Nine Mile Point, to inform all traffic they are entering the two-way traffic channels.

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 impractical.

By virtue of the authority vested in me as Commandant, United States Coast Guard, by Treasury Department Order dated July 31, 1950 (15 F.R. 6521), to promulgate regulations in accordance with the Act of March 6, 1896, as amended, the following amendment to § 92.26 is prescribed, which shall become effective on date of publication in the Federal Register:

§ 92.26 Special reporting procedures for vessels passing through the Middle Neebish Channel.

(a) Every upbound vessel, when abeam of Detour Light, shall notify the Coast Guard Control Office, St. Mary's River Patrol (Radio telephone call: "Soo Control"), of her time of passage at Detour Light and her draft. Such vessel, when abeam of Buoy No. 30 (Richardson Point) in upper Lake Munuscong, shall again call "Soo Control" reporting her position and estimated time of arrival at Johnson Point.

(b) Similarly, every downbound vessel, when abeam of Parisienne Island (Ile Parisienne), shall notify the Coast Guard Control Office, St. Mary's River Patrol (Radio telephone call: "Soo Control"), of her time of passage at Parisienne Island and her draft. Such vessel, when making the turn from the Birch Point Range on to the Brush Point Range, shall make



a second call to "Soo Control" reporting her position. Such vessel, when abreast of the old Coast Guard Look-out Station No. 6 (Brush Point), shall make a third call to "Soo Control" reporting her position. Such vessel, just before departing Soo Locks down-bound, shall make a last call to "Soo Control" reporting her position.

(c) A downbound vessel when abreast of Nine Mile Point may make a "Securite Call" to inform all traffic that she is now entering the two-way traffic channels.

(Secs. 1-3, 29 Stat. 54-55, as amended; 33 U.S.C. 474)

Dated: March 11, 1960.

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

[F.R. Doc. 60-2428; Filed, Mar. 16, 1960;
8:48 a.m.]

TITLE 33—NAVIGATION AND NAVIGABLE WATERS

Chapter I—Coast Guard, Depart- ment of the Treasury

[CGFR 60-16]

SUBCHAPTER K—SECURITY OF VESSELS

PART 124—CONTROL OVER MOVEMENT OF VESSELS

Advance Notice of Time of Arrival of Vessels

By Executive Order 10173 the President found that the security of the United States is endangered by reason of subversive activities and prescribed certain regulations relating to the safe-guarding against destruction, loss, or injury from sabotage or other subversive acts, accidents, or other causes of similar nature to vessels, harbors, ports, and waterfront facilities in the United States, and all territory and waters, continental or insular, subject to the jurisdiction of the United States exclusive of the Canal Zone.

(Federal Register of March 30, 1960)

TITLE 46—SHIPPING

Chapter I—Coast Guard, Depart- ment of the Treasury

[CGFR 60-17]

CHARACTER REFERENCES FOR DECK OFFICERS, VERIFICATION OF TANK VESSEL CERTIFICATES OF INSPECTION, WITNESS FEES CLAIMED ON STANDARD FORMS, AND SPARE PORTABLE FIRE EXTINGUISHERS FOR PUBLIC NAUTICAL SCHOOL SHIPS

The amendments in this document are editorial in nature and bring up-

to-date certain procedures, or set forth interpretations used as a basis for administration or enforcement of certain vessel inspection laws.

The amendment to 46 CFR 10.02-5 (i) (1), regarding general requirements for persons to obtain deck or engineer officers' licenses, eliminates from the character check and reference requirements that the applicants for original deck licenses shall obtain written endorsements of engineers on vessels on which the applicants have served.

The amendment to 46 CFR 31.05-1 (c) cancels the procedural requirements that the Officer in Charge, Marine Inspection, signing a certificate of inspection for a tank vessel will have it verified by his oath before a chief officer of the customs of the district or before any other person competent by law to administer oaths. This practice was discontinued when R.S. 4421 (46 U.S.C. 399) was amended by the Act of June 8, 1955, which abolished the statutory requirements that certificates of inspection had to be issued with verifications by oath.

The amendment to 46 CFR 136.11-10 changes the reference to the standard form used for request for payment of witness fees, subsistence, and mileage from "Standard Form No. 1034" to "Standard Form No. 1157." Standard Form No. 1157, Claim for Fees and Mileage of Witness, is specifically intended for this purpose. It has been found that Standard Form No. 1034, Public Voucher for Purchases and Services Other Than Personal, is difficult for the average witness type claimant to use.

The amendment to 46 CFR 167.45-70(a) revises the regulations regarding portable fire extinguishers for public nautical schoolships so that the requirements for these ships will be similar to those for other vessels concerning spare fire extinguisher charges or spare extinguishers in lieu of spare charges. There are now several varieties of approved portable fire extinguishers which cannot be readily recharged by the vessel's personnel. In practice spares have been required for these varieties to the same extent that spares are required for CO₂ extinguishers, rather than prohibiting their use.

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

(Federal Register of March 30, 1960)

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 16, 1960 (CGFR 60-7). Copies of these documents may be obtained from the Superintendent of Documents, Washington 25, D.C.]

ARTICLES OF SHIPS' STORES AND SUPPLIES

Articles of ships' stores and supplies certificated from 1 March to 31 March 1960, inclusive, for use on board vessels in accordance with the provisions of Part 147 of the regulations governing "Explosives or Other Dangerous Articles on Board Vessels" are as follows:

CERTIFIED

Dunham Chemical Co., 840 North Michigan Ave., Chicago 11, Ill., Certificate No. 426, dated 28 March 1960, DUNHAM D-155.

CANCELED (Failed to Renew in Accordance with 46 CFR 147.03-9)

Dunham Chemical Co., 840 North Michigan Ave., Chicago 11, Ill., Certificate No. 128, dated 1 March 1960, PD-7.

West Chemical Products, Inc., 42-16 West St., Long Island City 1, N.Y., Certificate No. 140, dated 1 March 1960, WEST LIQUID FLOOR WAX.

Shell Oil Co., Shell Bldg., San Francisco 6, Calif., Certificate No. 189, dated 1 March 1960, SHELL WALL TOX.

West Chemical Products, Inc., 42-16 West St., Long Island City 1, N.Y., Certificate No. 191, dated 1 March 1960, KILLBUG.

E. F. Drew and Co., Inc., 15 East 26th St., New York 10, N.Y., Certificate No. 231, dated 1 March 1960, DREW A-32 INJECTOR AND BURNER CLEANER.

E. F. Drew and Co., Inc., 15 East 26th St., New York 10, N.Y., Certificate No. 267, dated 1 March 1960, DREW-SOLV.

West Chemical Products, Inc., 42-16 West St., Long Island City 1, N.Y., Certificate No. 292, dated 1 March 1960, MOTHENE.

West Chemical Products, Inc., 42-16 West St., Long Island City 1, N.Y., Certificate No. 295, dated 1 March 1960, WEST (LARVICIDE).

West Chemical Products, Inc., 42-16 West St., Long Island City 1, N.Y., Certificate No. 301, dated 1 March 1960, HYDROSECT.

Lubrizol Corp., Box 3057, Cleveland 17, Ohio, Certificate No. 386, dated 1 March 1960, LUBRIZOL CONCENTRATE NO. 500 (LZ 520).

AFFIDAVITS

The following affidavits were accepted during the period from 15 February 1960 to 15 March 1960:

Pennsylvania Machine Works, 1625 S. Bambray St., Philadelphia 45, Pa., PIPE FITTINGS.

The Strong, Carlisle & Hammond Division, White Sewing Machine Corp., 11770 Berea Road, Cleveland 1, Ohio, FERROUS PIPING.

The Annin Co., Division of The Annin Corp., P.O. Box 22081, Los Angeles 22, Calif., VALVES.

The Duriron Co., Box 1019, Dayton 1, Ohio, VALVES.

R. G. Laurence Co., Inc., 124 Summit St., Tenafly, N.J., SOLENOID VALVES.

Dragon Engineering Co., Inc., 13457 Excelsior Drive, P.O. Box 185, Norwalk, Calif., VALVES.

Mission Valve and Pump Co., P.O. Box 4209, Houston 14, Texas, VALVES.

Alco Products, Inc., Petroleum Industry Equipment Div., 1400 Crockett St., Beaumont, Texas, FLANGES.

Badger Fire Extinguisher Co., Foot of Chase St., Methuen, Mass., PIPE FITTINGS¹.

W. C. Norris, Manufacturer, Division of Dover Corp., P.O. Box 1739, Tulsa 1, Okla., VALVES.²

Allis-Chalmers Manufacturing Co., York Works, Lincoln & Hartley Sts., York, Pa., VALVES.²

United States Valve & Engineering Co., P.O. Box 14015, Houston 21, Texas, VALVES.²

FUSIBLE PLUGS

The regulations prescribed in Subpart 162.014, Subchapter Q specifications, require that manufacturers submit samples from each heat of fusible plugs for test prior to plugs manufactured from the heat being used on vessels subject to inspection by the Coast Guard. A list of approved heats which have been tested and found acceptable during the period from 15 February 1960 to 15 March 1960 is as follows:

The Lunkenheimer Co., Cincinnati 14, Ohio, Heat Nos. 616, 617, 618, 619, 620, 621 and 622.

M. Greenberg's Sons, 765 Folsom St., San Francisco 7, Calif., Heat No. 173.

¹Limited to bulkhead seal expansion joints.

²Synthetic rubber-lined butterfly valves limited to Class I piping and a maximum temperature of 200° F. and to the acceptable piping systems.

MARINE SAFETY PUBLICATIONS AND PAMPHLETS

The following publications and pamphlets are available and may be obtained upon request from the nearest Marine Inspection Office of the United States Coast Guard. Date of each publication is indicated following title.

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

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

Changes Published During March 1960

The following have been modified by Federal Registers:

CG-267 Federal Register, March 4, 1960.

CG-190 Federal Register, March 16, 1960.

CG-115, CG-172, CG-191, CG-258, CG-267, CG-268, and CG-270 Federal Register, March 17, 1960.

CG-267 Federal Register, March 18, 1960; 20 cents.

CG-123, CG-191, CG-200, CG-239, and CG-269 Federal Register, March 30, 1960.

United States Coast Guard

BOATING STAMP



AVAILABLE AT YOUR
LOCAL POST OFFICE

April 1, 1960



Effective April 1, 1960, boats of more than 10 horsepower operated on the navigable waters of the United States **MUST** be numbered under the Federal Boating Act of 1958. On that date the Coast Guard will start receiving applications for numbers in those States which have not yet adopted their own numbering systems.* Vessels documented by the Bureau of Customs are exempted from this Act.

Applicants for Federal Certificates of Number may obtain application forms at local Post Offices. The completed application form and a \$3.00 fee must be filed with the Post Office. At that time a blue \$3 Federal Boating Stamp will be affixed to the application and a temporary certificate will be returned to the applicant. This certificate will serve as proof of compliance with the law until such time as the application has been processed by the Coast Guard.

*See article on page 74.