

PROCEEDINGS

OF THE MERCHANT MARINE COUNCIL



UNITED STATES COAST GUARD

Vol. 15, No. 4 • April 1958

CG-129



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

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FRONT COVER

Burying her bow in a big one the *California* makes time in the Gulf of Mexico to catch a favorable tide. Photo by J. Alex Langley courtesy *The Texas Company*.

BACK COVER

Under the apt title "Hot Facts on Fire" is this month's safety feature. Illustration courtesy *American Waterways Operators, Inc.*

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CANADIANS HONOR COAST GUARD SHIP



The Coast Guard's utility icebreaker *Storis* recently was honored for her participation in charting the sea route from Alaskan waters to Shepherd Bay by having a passage named for her by the Canadians.

The *Storis*, which in Danish means "big ice", carried out extensive Arctic

hydrographic operations in 1955 and 1956 and was one of the three Coast Guard ships that became the first deep draft vessels to complete a west to east transit of Bellot Strait in 1957.

(Continued on page 69)

WHAT'S IT WORTH TO YOU?

By Captain Claude H. Broach, USCG

I DOUBT if there is a person attending this meeting who isn't vitally concerned with the safe and efficient operation of ships. Marine safety is the primary reason for our being here.

We know that safety is a two-headed coin. Vessels that are operated safely are conversely operated efficiently. They go hand in hand. Whatever the reason, we all agree a safe ship is desirable.

The Coast Guard's responsibilities are fixed by statute and administered by rules and regulations. In the case of certain vessels we conduct biennial inspections and for others, principally passenger ships, we conduct annual inspections. It is in the field of biennial inspections and their associated reinspections that I would like to direct my remarks today.

For sometime prior to the enactment of the biennial inspection law of June 4, 1956 (Public Law 549-84th Cong.) it was thought that the extensive examinations into the hulls, machinery, and operating equipment of inspected vessels which was required at the annual inspections, could be spaced over a two-year period with no diminution in safety. This opinion was based principally upon, first, the fact that the frequency of

ABOUT THE AUTHOR

Chief of the Merchant Vessel Inspection Division in the Office of Merchant Marine Safety at Coast Guard Headquarters, Captain Broach made these remarks at the panel discussions of the Marine Section, National Safety Council, held in Philadelphia, Pa., March 5-6, 1958, during the 24th Annual Regional Safety and Fire Conference. A veteran merchant marine engineer prior to his commissioning in the Coast Guard in 1942, he has been Chief of the Merchant Vessel Personnel Division, served a tour at sea, and been Officer in Charge, Marine Inspection, Houston, Tex., prior to taking over his present assignment in 1956.



THIS IS MAINTENANCE? A shipyard worker points out a cement patch in the bottom of this lifeboat that was discovered at a Coast Guard inspection, but was not included on the voyage repairs. A good housekeeping program would have seen this repair placed in hand long before the inspector made out a requirement for its accomplishment.

drydocking would not be changed, and second, that it was intended to perform at least one reinspection between biennial inspections.

This reinspection may or may not coincide with the drydock examination, but in any case, is intended to keep the Coast Guard informed as to the condition (synonymous with maintenance!) of the vessel's machinery and safety equipment.

COOPERATIVE EFFORT

As sometimes is the case in a new program there has been some getting used to the changeover. I feel, however, the cooperation between the Coast Guard, ship owner and operator, and ships' officers will solve any difficulties that may arise.

It becomes obvious that in these inspected vessels which receive a thorough Coast Guard examination every

two years certain responsibilities fall directly on the owners and operating personnel. Tests of fire extinguishing equipment must still be made yearly. Lifeboats must be checked and outdated items replaced. All other safety equipment must be maintained in good order. By its very nature the reinspection is intended to be a spot check on the ship to ascertain if her safety has been impaired since the last inspection. Many factors may contribute to this impairment. Lack of proper maintenance is one of these. Neglect and carelessness are others.

Probably the most convenient time for this reinspection is when the ship is drydocked, but for a ship on a tight schedule with little or no bottom work another time may prove better for all concerned. The time for the mid-period inspection should be one mutually agreed between the ship operators and the local Coast Guard offices. We do not require or desire formal applications since the spirit of the law contemplates nonscheduled inspections. I feel sure that you all know that we have records that show when a vessel is due for reinspection, and when they become overdue it becomes our duty at Coast Guard Headquarters to alert the field marine inspection offices, who in turn must arrange with you for a reinspection date. I know that you would like your ships kept so that they are always ready for a reinspection; and if this is done, reinspection presents no problem to anyone.

By law all licensed officers are required to assist the Coast Guard in its examination of their vessel and to point out all defects and imperfections known to them in the hull, equipments, boilers, or machinery of the vessel. Their cooperation in this regard is most essential, but in a great many cases the imperfections they make known to the hull and boiler inspectors are items that could or should have been put in hand without waiting for a requirement from the Coast Guard to perform the job.

TOO MANY OF THESE

In my job I see reports of inspections that include far too many requirements like these:

Replace *missing* fire hoses at weather deck stations; replace *missing* water and provisions in all lifeboats; place general alarm system in good working order; replace *missing* securing dogs and hinges on lifeboat provision tanks; free up *frozen* reach rods; replace *broken* airport securing dogs; replace *broken* airport glass; free up *frozen* lifeboat sheaves; replace *missing* ullage screens, etc.

These are just a sample. They are all items that come under the heading of maintenance and should be detected and corrected without waiting for Coast Guard inspection. They are "safety" items. They all are items that reflect poor housekeeping. Not one is an item that falls into that realm of opinion as to condition or necessity for renewal. A refreshing occurrence is when the inspector finding one of these conditions is greeted by the Mate, "We recognized that unsafe condition and correction is in progress."

This matter of proper housekeeping, maintenance, safe operations, etc. requires close support of the ship's personnel by the shore staff. Many ship's officers, for various reasons, are hesitant about including minor items of repair or to submit a long voyage repair list—needed or not. Who gets the nod? The Coast Guard inspectors with their long list of deficiencies! And I repeat; too many of these items are "safety" items that were deferred.

At the regular biennial inspection there usually is time for more thorough examination. Time usually is at a premium at reinspections. These reinspections are not designed as "nit picking" expeditions, and if the inspectors are forced to spend their time on those items which should have been replaced or repaired to keep the vessel in good shape, the reinspection takes longer; the port staff is rapped by the freight people; and a lot of unnecessary high blood pressure results.

I think everyone will agree it would be preferable for a ship to request repairs for a lifeboat when a ship arrives in port than have the inspector stick a broom handle through the bottom a few hours before sailing. This, incidentally, actually happened. A ship arrived in a West Coast port and an inspector aboard for an entirely unrelated job was standing on the boat deck chatting with the port captain while the ship secured for sea.

In the course of their talk the inspector kept flicking away bits of water falling on his head. Thinking he was under the drain plug of a boat nested overhead, he glanced up and saw the water was coming from a small hole in the bottom of the boat. He mounted a small ladder for a closer look and was able to put his finger through the bottom. The shell plating in this boat was found to be so deteriorated that a broom handle, held by the bristles, could be shoved through the boat at random.

With this boat in such a pitiful state, the inspector was obligated to look at the other boat. The result? Two lifeboats headed for the repair shop and 3 days delay to the ship.

PROPER CHECKS

While it is important for the ship's crew to check the vessel and its equipment, it is equally important that it be done properly. On a passenger ship the submersible pump was run periodically and the test logged. At a reinspection when the pump was demonstrated the motor ran beautifully—but it wouldn't pump a drop. With only a few hours to sailing time the port engineer developed a few more gray hairs.

These situations do not, I am happy to say, arise every day, but they give an idea of what our mutual problems are and how they relate to everyday safety.

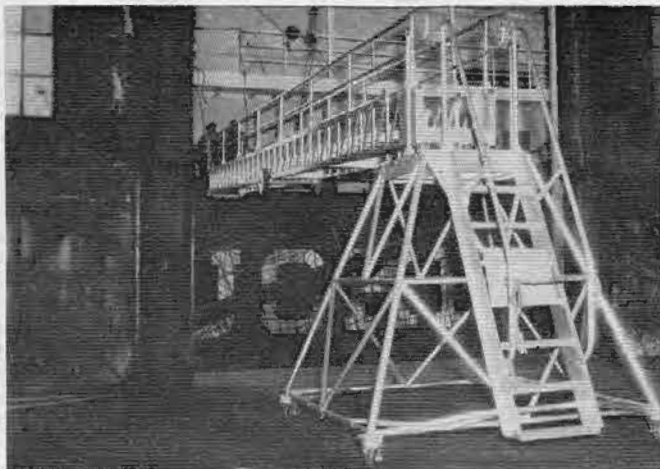
It is our intention to cooperate in the scheduling of reinspections so the program will not interfere with the normal movements of the vessels regulated. I think I can safely say that we at Coast Guard Headquarters do not intend to issue orders placing strict limits on the extent of reinspections or restricting field inspectors; we must depend on them, with supervision and guidance from the local OCMI, to make inspections in such detail as are necessary to be satisfied that the vessel can continue in navigation with safety. On this point, we intend that a clean and well kept ship will require minimum inspection. This minimum time for reinspection on well kept ships, plus the absence of last minute requirements on such ships, and the recognized fact that a clean, well kept ship is a safe ship paints a rosy picture indeed.

We have received comments that reinspections are not "uniform." That procedure in one port differs from that in another; or that individual inspectors use different or varied methods and procedures. On this point I ask you, "On a well maintained and safely operated ship, what difference does this make?" I, personally, am of the opinion that a certain amount of nonuniformity is essential to proper safety inspections, whether by the Coast Guard marine inspectors, the ships' officers, or the company safety engineer, so long as (*and this is important*), the lack of uniformity is not due to arbitrary or unreasonable decisions.

What I have tried to say here today is simply that a well kept ship is a safe ship—as a safe ship, minimum attention from the Coast Guard is required—she should not be faced with last minute delays for equipment replacements or repairs, so that her scheduling can be positive—and all of this should mean more efficiency. You know your ships—so—"what is it worth to you?"



THE OLD AND THE NEW: Looking forward on this C-3 type vessel can be seen Luckenbach's method of solving the problem of sunken tracks and railroad cars between the ship and dock. The ship's gangway is landed on the string piece for illustrative purposes.



DOCKSIDE VIEW of the new gangway arrangement for Luckenbach ships berthed abreast sunken tracks.

SHIPBOARD SAFETY STARTS AT THE GANGWAY!

THE GANGWAY is the one piece of equipment that must be utilized by all persons boarding and leaving the ship except for specialized people who use a Jacob's ladder. Gangways must be sturdy, suitably rigged, clean, well lighted, and probably above all, properly used.

Yet, the human equation in this problem is sometimes hard to solve. Semiannually the Coast Guard publishes a tabulation of "Unsafe Practices Reported" which, among other things, gives a breakdown on unsafe access to vessels. In 1955 there were a total of 223 reports in this category. In 1956 it fell slightly to 220 cases. But in 1957 the total zoomed to a staggering 340 instances of unsafe access. These include:

Gangway inadequate.....	34
Improperly secured.....	64
Improperly rigged.....	64
Too steep.....	44
Not clear.....	12
No ring buoy.....	109
Insufficient number.....	8
Under discharge.....	5

Hand in hand with these figures is the grim fact that falls are responsible for a greater number of personnel casualties than any other cause. Since July 1952 there have been 23 deaths and 85 injury cases reported to the Coast Guard in connection with access to vessels.

Some of these reports follow:

"Man killed in fall from top of gangway to dock while intoxicated. . . . Crew member killed in fall from unsafe gangway. . . . This man fell from the gangway and landed on the camel between ship and the dock sustaining a fracture of the spine and a crushed chest. He died 12 days later. . . . Standing on the gangway while it was being lowered this crew member lost his balance and tumbled into the water head first and was drowned. . . . In grabbing for a loose package this man slipped and fell to the dock below. Dead on arrival at hospital."

The injuries range from minor to crippling. They show gross inattention to the seriousness of ascending a gangway, slips on steep gangways, failure to keep one hand for themselves and one for the ship, and the result of intoxication.

In this matter of intoxication a Federal court said:

"The vessel's responsibility to provide a safe gangway is more clearly demonstrated when it is clearly anticipated that its crew members may be returning in varying degrees of sobriety after their liberty ashore."

In steamship companies operating more than one type of vessel the problem of the proper gangway can be a knotty one. What works in one port may not be satisfactory in another, or what is suitable for one ship may not work for the next one.

At the National Safety Council meetings in Chicago last October, Robert J. Tarr, operating manager of Luckenbach Steamship Co., Inc., made the following remarks relative to gangways in his company:

"The C-2 vessels of our fleet presented a major gangway problem since the gangways are rigged at cabin deck—rather than weather deck-level and with vessels in light condition the regular 38-foot gangway originally provided was too steep for safety. After considerable study, we designed, and had constructed, aluminum 50-foot gangways for three of our C-2 vessels. The fourth C-2 could not properly house a 50-foot aluminum gangway and still clear the lifeboats—being slightly different in design. Therefore a 38-foot gangway with a 12-foot portable extension was designed and constructed of aluminum and our problems were solved.

"Originally our C-4 vessels had gangways fitted either between No. 3 and No. 4 hatches or at No. 6 hatch—both dangerous locations due to concentration of cargo handling



ORIGINALLY LOCATED between No. 3 and No. 4 cargo holds, the gangway for Luckenbach C-4 ships has been moved aft and located in this position, greatly minimizing hazards from cargo operations.

activity at these large double-geared hatches. We relocated the gangways of our C-4's to the poop deck of the afterhouse, just forward of the small single-geared No. 7 hatch, greatly minimizing the hazard from cargo operations."

Safety meeting minutes indicate a strong preference for "string-of-light" gangway illumination during darkness rather than a single make-shift light or quickly rigged cargo light brightly illuminating only a small portion of the gangway and casting dangerous shadows over the remainder. Safety nets are provided for all our vessels and our safety instructions require their rigging beneath ship's gangways not only at Pacific Coast ports where longshore rules require their use, but at all ports of call. These nets have already caught, and saved from possible injury or worse, several fish in the form of late returning crew members who had lost their stability after faulty shoreside loading of liquid cargo.

A gangway safety hazard often complained of in our ship's safety meetings and one most difficult of completely satisfactory solution despite our best efforts, concerned a situation at our Pier 84, South Wharves, Philadelphia. Depressed railroad tracks run down both aprons of the pier. A large portion of our cargo, particularly steel, is loaded direct to ship from railroad car and some cargo is discharged direct from ship to railroad cars. This operation requires frequent "drills" of cars over the aprons. The use of ship's gangway required persons to make their own way over the depressed tracks to, and from, the pier.

As a partial correction of this safety hazard, a plank catwalk was

provided across the depressed track from pier to edge of ship's gangway. This required "breaking" (uncoupling) each drill of cars just abreast of ship's gangway to position the plank catwalk. You can visualize the disadvantage of this plan. Many crew members would not wait for the catwalk to be placed and, even when it was in position, some continued to make their way through empty freight cars or over the couplings between loaded cars—a most dangerous procedure. After considerable trial and error attempts to correct this hazard, we decided the complete solution required the design and construction of a shoreside, portable, platform type, lightweight gangway to span, not only the tracks, but loaded railroad cars as well and provide a safe, direct route from pier to ship, independent of ship's gangway.

We designed an aluminum gangway, swivel-fitted to a raised stairway platform on rollers at the pier end, but fitted with a special-alloy grooved slot for clamping to the sheer strake at the ship end. This design was a complete success. It spanned loaded railroad cars and eliminated necessity to "break" drills abreast of ship's gangway. To insure only this one safe avenue is available, ship's gangway remains housed.

This solution was costly. The gangway cost over \$2,000 and we have since purchased a second one for use when working a vessel on each side of the pier. A Coast Guard officer from the Philadelphia area remarked, when he first used the gangway: "It is the finest on the Delaware River."

At certain periods we encountered gangway safety problems at Portland, Oreg., and, occasionally, at Terminal Island, Calif., when the weather decks of our vessels, in loaded condition, dropped below the level of the dock. Our short, shoreside brows at these two locations, when the above conditions prevailed, did not form a smooth, even passage from dock to weather deck. Cutting the pipe railings on the cabin decks of our vessels to accommodate our shoreside brows (and fitting the openings with removable pipe railing inserts) corrected the hazard.

While the gangway problems encountered here are not unique, the solutions are. They represent co-operative effort on the part of Luckenbach officials and sea going personnel in the never ending job of marine safety.

Every man rates a safe gangway—make sure he gets it!

VISUAL SIGNALS

In this modern age of electronics we are apt to forget or overlook the value of visual signalling between shore stations and ships at sea. On several occasions lately this means of communications had been prominently in the news. One recent interesting article concerns the British Admiralty's results of NATO signalling exercises involving naval and merchant ships. We quote the following abstracts from this article for your benefit:

"During the quarter period ending June 30, 1,287 successful contacts by signal light were made by British men-of-war with merchant vessels of all nationalities.

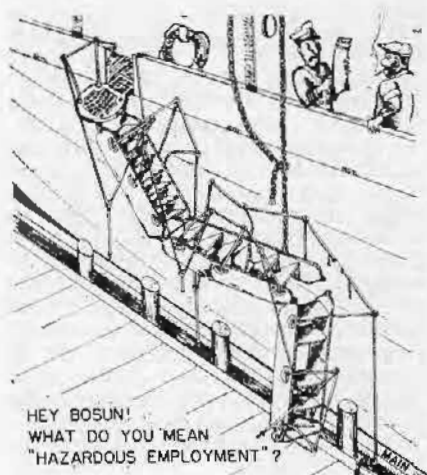
"Not so successful was the international signal "TE" flown by naval ships engaged in demolition work. This signal which means 'You should proceed at slow speed while passing the vessel or station making this signal' was ignored by practically every passing vessel."

Although visual signalling rapidly is being replaced by the radio telephone, it still is a necessary and important means of communication between ships at sea. The International Code flags enable ships to communicate with each other regardless of language differences. Whereas, the use of the radio telephone is limited to ships on which the same language is spoken.

Farrell Lines Safety News

American President Lines will name their two new "Searacer" ships the *President Lincoln* and the *President Roosevelt* it was announced in Washington, D. C. Contracts for these ships were signed by APL and the Federal Maritime Board with Bethlehem Pacific Coast Shipbuilding Division and will be constructed in San Francisco. The freighters are an advanced Mariner type and will be 560 feet in length, have a beam of 76 feet, carry 13,000 deadweight tons, and are rated at 20 knots.

Contracts have been awarded for preliminary engineering and design studies for the conversion to nuclear power of a tanker now under construction, it was announced by the Maritime Administration and the Atomic Energy Commission. George G. Sharp, Inc., as the ship design agent and General Electric Co. as the reactor designer have been awarded contracts for a 22,500 deadweight ton tanker under construction at the Ingalls Shipbuilding Corp., Pascagoula, Miss.



UNITED STATES COAST GUARD

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



MVI
11 Feb 1958

Commandant's Action

on

Marine Board of Investigation; USNS *Mission San Miguel*; loss of by stranding on Maro Reef,
Hawaiian Archipelago, 8 October 1957

Pursuant to the provisions of Title 46 CFR Part 136, the record of the Marine Board of Investigation convened to investigate subject casualty, together with its Findings of Fact, Opinions, and Recommendations, has been reviewed.

The USNS MISSION SAN MIGUEL, a T-2 type tanker of 10,461 gross tons, built in 1944, owned by the U. S. Navy, civilian manned and operated in the Military Sea Transportation Service, departed Guam, M. I., in ballast, on 1 October 1957 bound for Seattle, Washington, under USN sailing orders which included positions to be traversed along a track passing through the Hawaiian Archipelago about 23 miles south of Maro Reef. In the evening of 8 October while proceeding at full speed—about 15 knots—weather overcast with rain squalls, the vessel struck this reef, piercing her bottom. Because of jammed valves, the cargo pumps were unusable to counteract the progressive flooding which followed through failure of pump room, engine room and cargo space bulkheads previously weakened by extensive wastage. On 10 October all personnel were removed by other U. S. Navy ships without injury or loss of life. The vessel valued at \$2,000,000 was abandoned as a total loss.

The Board concluded that although weather conditions for several days preceding this casualty had prevented obtaining a "fix" by celestial observations, and Loran, Radio Direction Finding and other aids to navigation were not available in this particular location, the cause and extent of the casualty were directly attributable to certain errors by several officers with regard to the navigation of the vessel and an absence of damage control. Accordingly, the Board recommended that appropriate disciplinary action be taken under R. S. 4450 against the licenses issued to these officers, which action was commenced.

The Findings, Opinions, and Recommendations of this Board are approved.

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

COAST GUARD OPENS FIELD TECHNICAL OFFICE

KEEPING PACE with increased ship building activity throughout the nation, the Coast Guard has opened its first Field Merchant Marine Technical Section under the Commander, 8th Coast Guard District, in New Orleans, La.

This technical unit will handle plan approval for all new marine construction, conversion, or alteration on vessels subject to inspection within the 2d, 7th, and 8th Coast Guard Districts. The map on this page indicates the geographic coverage of this Southern field technical office.

Any plans for new construction, conversion, or alteration for vessels subject to inspection in this area should now be forwarded to—

Commander, 8th Coast Guard District (mmt)
Room 308, Customhouse
New Orleans 16, La.

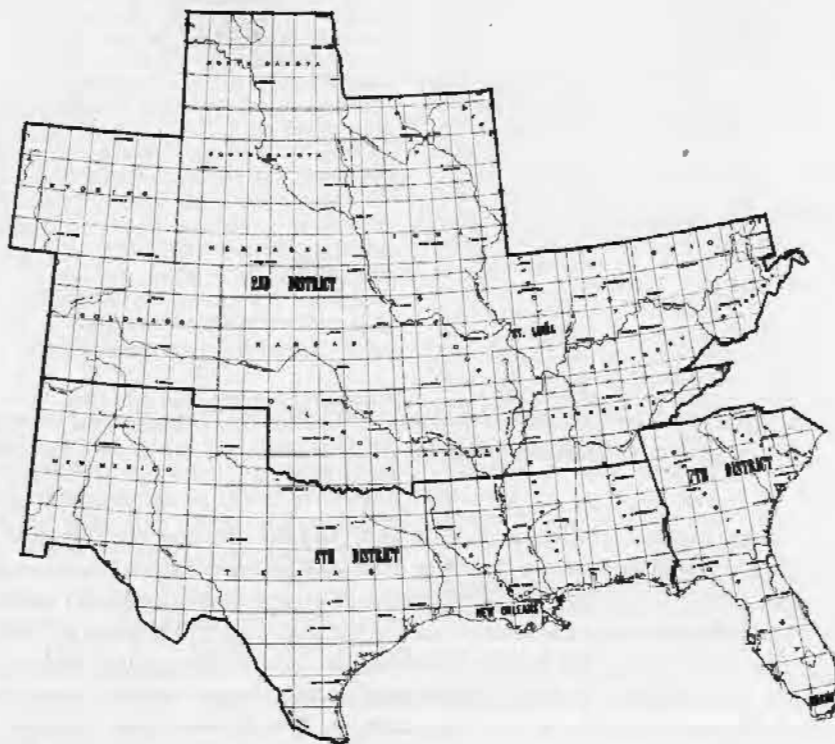
This office, first of several similar technical units planned for the remainder of the country, will enable representatives of the marine industry to discuss their problems on a local basis. It is intended by this change to speed up and improve plan approval procedure and to facilitate discussion between industry and the Coast Guard with regard to problems of merchant marine safety and the application of the vessel regulations.

Increased shipbuilding and in particular the offshore oil stimulus in the Gulf area have steadily increased the workload on the Merchant Marine Technical Division at Coast Guard Headquarters, Washington, D. C. Although this Division has been augmented by naval architectural and marine engineering representatives in some of the field section offices, the augmentation has not been sufficient to offset the ever increasing demands by the marine industry for technical service. Hence, the establishment of this southern field technical office.



COMMANDER RICE

Head of this new unit is Commander Stanley H. Rice, USCG. A 1943 graduate of the Coast Guard



Academy, he saw World War II action in the North African campaigns, the landings in Sicily, and the Anzio and Salerno operations. Following his sea duty, he was sent to the Massachusetts Institute of Technology where he graduated in 1946 with a Masters Degree in Naval Construction and Marine Engineering.

In 1949, after another tour of sea, CDR Rice was the Coast Guard resident inspector during the rebuilding of the icebreaker *Eastwind* at the Newport News Shipbuilding & Dry Dock Co. Prior to his present duty he was assigned to the Naval Engineering Section at Coast Guard Headquarters and spent a year in the Merchant Marine Technical Division.

In addition to CDR Rice, the office includes LCDR Austin F. Hubbard, LCDR George J. Bodie, Chief Machinist Charles R. Dowlen, and John H. Malain. When fully staffed, two additional officers will round out the complement.

LEGAL OPINIONS

In *Eureka-Sokol*, 1957 A. M. C. 2134, 153 F. Supp. 481, the Court held that the narrow channel rule is not applicable to Ketchikan harbor where the necessities of navigation require navigation in every conceivable direction. Referring to earlier cases, the court agreed that the narrow channel rule does not apply to that part of the Hudson River which serves as part of the harbor of New York, but it does apply to Tongass Narrows, an approach to Ketchikan harbor (Alaska).

In *Neptune Transportation Corp. v. Tug Bartow, et al.*, 1957 A. M. C. 2046, a tug signalled to barge astern that the hawser was to be shortened and the barge taken alongside. One of the barge crew threw off the hawser before receiving orders to do so from the tug, and the barge grounded. The court dismissed the libel against the

tug, holding that the barge, not the tug, was at fault. The certificate of inspection called for a three-man crew on the barge (2 Able Seamen, 1 Ordinary Seaman) and stated: "When navigating on a harbor or river route exclusively, Deckhands may be carried in lieu of Able Seamen * * *."

The barge had three men assigned but the third man was on his time off. It had been a custom on tank barges since 1945, pursuant to agreement with the union, to have two men on and one man off. Although the Coast Guard, after the accident, amended the certificate to allow two-man operation, the court held the barge at fault for failure to have a qualified crew, the two aboard being an ordinary seaman and a deckhand.

The captain of the tug told the barge crew to drop anchor when the barge began drifting ashore. The anchor was shackled and lashed. The shackles had to be freed with tools, none of which were available on the bow. The court found that the anchor could not be let go with dispatch, and that the barge crew was more concerned with the manual labor it would take to raise it than in keeping the barge from going aground.

Woodzell et al. v. Hurzell Plastics Industries, Inc., et al., 1957 A. M. C. 2117, 152 F. Supp. 483, was an action to recover for the wrongful death by drowning of a Maryland resident when his plastic boat broke apart in the Potomac River allegedly because of defective or negligent manufacture of its hull. The manufacturer moved to dismiss the action on the basis it could not be liable to a remote vendee with whom the manufacturer had no direct contractual relationship. A Federal District Court in Michigan reviewed the cases concerning liability of manufacturers, decided that Maryland courts would not deny liability of such manufacturers, and overruled the motion to dismiss.

The Court quoted as part of the basis for its decision Section 395, Restatement Torts, as follows:

"A manufacturer who fails to exercise reasonable care in the manufacture of a chattel which, unless carefully made, he should recognize as involving an unreasonable risk of causing substantial bodily harm to those who lawfully use it for a purpose for which it is manufactured and to those whom the supplier should expect to be in the vicinity of its probable use, is subject to liability for bodily harm caused to them by its lawful use in a manner and for a purpose for which it is manufactured."



40 YEARS AGO:

The Bureau repeats a ruling contained in its circular letter of November 1, 1909 in regard to the transportation of celluloid on steamers carrying passengers, which allowed articles whose composition or attachments are made up of less than ten percent of their weight of cellulose products to be carried in any part of the ship remote from excessive heat.

Accidents to vessels reported to the Bureau included the following: The steamer *Umatilla* while on voyage from Seattle to Singapore via Hongkong stranded on the Japanese Coast. Cause of accidents is reported as being an unusual current which set vessel 14 miles off her course and peculiar atmospheric conditions. Vessel was a total loss.

The steamer *Atlanticon* enroute from Philadelphia to Liverpool with a cargo of oil was torpedoed in latitude 55°55' N. and 7°9' W. Vessel sank in 12 minutes. All the crew except the First Officer, who was taken prisoner, got away safely in lifeboats.

Every licensed officer and certificated man must realize that one of the greatest dangers while a ship is in port is the neglect to take precautions with regard to open hatches. The masters of vessels must insist that such precaution be taken to minimize accidents around open hatches.

30 YEARS AGO:

Authority given the Commanding Officer of the United States Lighthouse Tender *Daisy* to examine applicants and to issue certificates of efficiency as lifeboatmen was transferred to the Lighthouse Tender *Beech*. In addition, Coast Guard officers in San Pedro, Calif. and Charleston, S. C. were designated to assist in the examination and certification of lifeboatmen.

While the tank steamer *Chuky* was 200 miles off the Coast of Japan, an explosion occurred which caused the vessel to break in two amidship. Twenty-one members of the crew got away from the ship in a lifeboat and 15 were lost.

20 YEARS AGO:

The Bureau announces the new edition of the Load Line Regulations which includes the latest amendments made by the Secretary of Commerce. Divided into sections for ready reference, the book quotes Load Line Acts, has illustrations of the different markings as they should appear on the vessel's side, and has a color map showing the different seasonal zones.

On March 1, 1938 American Shipyards were building or had under contract to build for private shipowners 102 vessels, aggregating 368,079 gross tons. There were 206,282 numbered motorboats in the United States on April 1, 1938.

15 YEARS AGO:

While operating as a convoy escort in the North Atlantic, one German submarine was sunk by ramming and gunfire and five others were attacked with depth charges by the Coast Guard Cutter *Campbell*.

Women are now being admitted to the ranks of the Volunteer Port Security Force, an organization of volunteers to guard important waterfront facilities in their spare time under the supervision of the Coast Guard's Captain of the Port organization. These volunteers will wear uniforms and submit to military discipline while on duty but will receive no pay.

COMET IS PROTOTYPE ROLL-ON, ROLL-OFF SHIP



VIEWS FROM THIS ANGLE the Comet presents a profile not unlike a conventional cargo ship. Photo Courtesy MSTs Magazine, Department of the Navy.

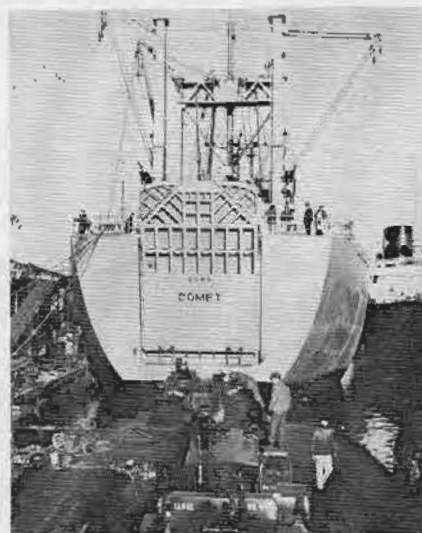
HAILED AS the first ship ever built from the keel up as an oceangoing roll-on, roll-off carrier, the USNS *Comet* is operating for the Military Sea Transportation Service, Department of the Navy, manned with a civilian crew.

This 13,792 gross ton prototype vessel has normal cargo ship capabilities; rapid, and convenient roll-on, roll-off features; and provides a means of carrying cargo without breaking bulk—a factor which has interested the maritime industry.

Certificated by the Coast Guard on January 16, 1958, as a "Naval Ship in Service, Civilian Manned," the 468-foot ship can load some 9,000 measurement tons of military rolling stock via four side ports and a stern ramp. The ship's stern ramp is lowered much like the bow ramp of



A DECK VIEW of the Comet. Note the massive hatch covers and cargo handling gear. Photo Courtesy U. S. Army.

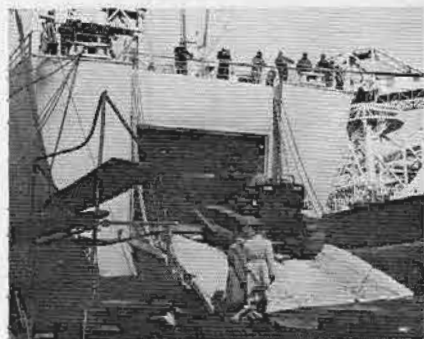


A STERN VIEW with the ramp up. Photo Courtesy U. S. Army.

an LST and vehicles are driven aboard from a barge or pier, depending on the facilities.

Traffic is controlled by a system of directional arrows through the maze of ramps and U-turns. Jams are prevented on the 14° ramps by the location of car pullers capable of drawing stalled vehicles up and out of the way.

The ship is fitted with an oversize ventilation system to remove carbon monoxide fumes, a gas detection system, and a giant drainage system to wash away gas, mud, and grease. The vessel is propelled by two 16-foot 4-bladed solid bronze propellers and has a maximum shaft horsepower of 13,200. Illustrated on this page are a series of photographs to illustrate the working features of this unique vessel.



WITH RAMP DOWN heavy equipment rumbles aboard. Photo Courtesy U. S. Army.



SIDE PORTS wide open and a heavy tank scrambles aboard. Photo Courtesy U. S. Army.



nautical queries

Q. (a) How is the eccentric secured to the shaft of a main propulsion reciprocating engine?

(b) How is the eccentric strap prevented from sliding sideways from the eccentric disk?

A. (a) The eccentric disk is made in two parts, being divided through the center of the crankshaft bore. The two parts fit around the shaft and are bolted together with bolts which are countersunk into the circumference of the disk. The disk, when assembled, forms a true circle, but the bore to fit the shaft is offset from center of the disk. It is secured by being keyed to the shaft, the keyway being milled half into the shaft and half into eccentric disk. Set screws through disk to shaft prevent any slippage in a longitudinal direction.

(b) The eccentric disk is turned off to a smaller diameter for a short distance in from each edge of the disk. The strap is made in two parts and the metaled surface, being of larger diameter than the outside edges, will fit the extended diameter of the disk. The two sections are bolted together around the disk and the extended lips of the strap prevent slippage sideways.

Q. Your vessel is on course 140° True at speed 9 knots. At 0800 a vessel is observed on the PPI scope bearing 090° T at a range of 5 miles. At 0812 the vessel is observed bearing 102.5° T at a range of 3 miles.

(1) Assuming that both vessels maintain course and speed, determine the distance between them at the closest point of approach.

(2) Determine the course and speed of the vessel observed.

A. (1) 1.5 miles (at 0826).

(2) 204.2° and 11.1 knots.

Q. Your vessel is on course 325° True at speed 19 knots. At 0500 a vessel is observed on the PPI scope bearing 350° T at a range of 6 miles. At 0506 the vessel is observed bearing 340° T at a range of 3 miles.

(1) Assuming that both vessels maintain course and speed, determine the distance between them at the closest point of approach.

(2) Determine the course and speed of the vessel observed.

A. (1) 1.0 mile (at 0511½).

(2) 215.1° and 18.8 knots.

Q. Your vessel is on course 010° True at speed 12 knots. At 0400 a

vessel is observed on the PPI scope bearing 350° T at a range of 6 miles. At 0406 the vessel is observed bearing 000° T at a range of 4 miles.

(1) Assuming that both vessels maintain course and speed, determine the distance between them at the closest point of approach.

(2) Determine the course and speed of the vessel observed.

A. (1) 1.9 miles (at 0416).

(2) 117.7° and 14.5 knots.

Q. Your vessel is on course 175° True at speed 12 knots. At 2200 a vessel is observed on the PPI scope bearing 250° T at a range of 5 miles. At 2220 the vessel is observed bearing 240° T at a range of 4 miles.

(1) Assuming that both vessels maintain course and speed, determine the distance between them at the closest point of approach.

(2) Determine the course and speed of the vessel observed.

A. (1) 2.7 miles (at 2306).

(2) 159.6° and 13.7 knots.

Q. Your vessel is on course 235° True at speed 16 knots. At 0300 a vessel is observed on the PPI scope bearing 240° T at a range of 6 miles. At 0312 the vessel is observed bearing 250° T at a range of 4.1 miles.

(1) Assuming that both vessels maintain course and speed, determine the distance between them at the closest point of approach.

(2) Determine the course and speed of the vessel observed.

A. (1) 2 miles (at 0332).

(2) 260.5° and 6.5 knots.

Q. What is a "col" on a weather map?

A. A "col" is "an area on the weather map between two depressions and two eminences (high pressure areas), giving a saddleback shape to that part of the map." (A Mariner's Meteorology—Halpine.)

A "col" is "a neck of relative low pressure between two anticyclones; also called a saddle or neutral point." (Weather Glossary.)

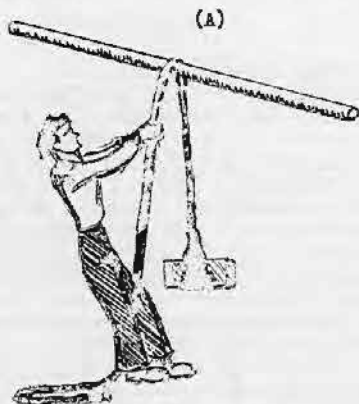
Q. What is an "occluded front"?

A. An occluded front is "the front formed when and where the cold front overtakes the warm front in an extra-tropical cyclone." (Weather Glossary.)

When one front overtakes another, forcing one front upward from the surface of the earth, the front is said to be an occluded front, and the zone in which this condition exists is called the occlusion. (A Mariner's Meteorology—Halpine.)

BLOCKS AND TACKLES

Q. In lowering the 100 lb. weight as shown, is more stress put on the overhead spar at A, or at B where several turns are taken around the spar? Why?



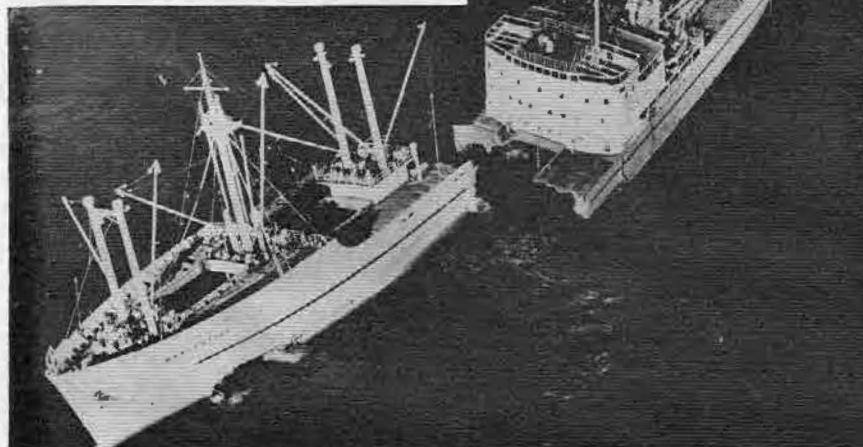
A. More stress is placed on the overhead spar at A. The stress on the spar is equal to 100 lbs. + the pull exerted by the sailor in restraining it. Less pull by the sailor is required at B because of the friction of the turns.



MARITIME SIDELIGHTS

TOUGH BREAK

A VICTIM of too little water, the Norwegian freighter *Belleville* lies shattered in two off Newport, R. I. The vessel ran aground last September and finally broke up under the pounding of the sea. All efforts to free the ship during its long imprisonment failed. Photo courtesy *United Press*.



* * *

The familiar white block "S" on ships operated by the California Shipping Company has been replaced with a red, white, and blue chevron set in a white circle. The new stack markings and house flag will be used on all Socal, Caltransport, and Caltanker vessels. The Treasury Department Bureau of Customs registered the new markings on January 14, 1958.

* * *

The Marine Section of the National Safety Council and the American Merchant Marine Institute presented a Ship Achievement Award to the SS *Gulfoil* in recognition of a rescue off the Florida Coast. A certificate and pennant was presented to Captain Solomon Andert of the *Gulfoil* for saving the lives of two people whose boat foundered during a storm.

* * *

Unique among pilot boats is the *Brandywine*, owned by the Pilot's Association for the Bay and River Dela-

ware. This steel boat is fitted with an all-around rubber fender with an outside diameter of 8 inches and a wall thickness of 2½ inches which absorbs any shock of collision in boarding pilots.

* * *

Captain Joseph A. Boyd, who as master of the SS *Cape Ann*, United Fruit Co., was commended by the Government for rescue operations in the sinking of the *Andrea Doria* in July 1956, died at a Long Island hospital on January 23. Captain Boyd received a Meritorious Service Medal for himself and a Gallant Ship Plaque for his ship in ceremonies aboard the *Ile De France* late last year in the first peacetime presentations of the awards honoring the courage, resourcefulness, sound seamanship, and teamwork in this heroic operation.

* * *

A bill to provide appropriate public recognition of the gallant action of

the SS *Meridith Victory* in the December 1950 evacuation of Hungnam, Korea, has been introduced in Congress. Operated by Moore-McCormack Lines, the freighter transported approximately 14,000 Korean civilians from North Korea to Pusan in a single voyage.

* * *

The Port of Houston in 1957 broke all previous records by handling 57,804,406 tons of cargo valued at \$3,959,500,027 it was announced in the marine press.

* * *

Secretary of Commerce Sinclair Weeks has announced that the President approved recommendations of the Federal Maritime Board for the construction of cargo ships in West Coast Shipyards. Two vessels for American Export Lines, Inc., will be built in San Diego; two for Moore-McCormack Lines, Inc., in San Pedro; and two for American President Lines, Ltd., in San Francisco. Two others for Moore-McCormack will be built in Chester, Pa., and another two for the Export Lines in Camden, N. J.

* * *

Significant changes in the composition of the merchant fleets of the world and in the size and speed of newly built ships are shown in a report entitled "A Statistical Analysis of the World's Merchant Fleets," released by the Maritime Administration. Copies may be obtained from the Superintendent of Documents, Washington 25, D. C., for 65 cents per copy.

* * *

The 710-foot Great Lakes steamer *George M. Humphrey* of the M. A. Hanna fleet ended the 1957 season with a record tonnage of 873,957 tons hauled during the year. The giant carrier averaged 20,324 gross tons during her 43 trips of the season.

* * *

Spring sessions of the Marine Section, National Safety Council, will be held in New York April 16 and 17. The sessions will be devoted to shipbuilding, ship operations, and stevedoring. Leslie H. Quackenbush, vice president, States Marine Corporation, is general chairman.

The complete text of the Canadian recognition follows:

"Until 1955, reliable and informative hydrographic charts for the Canadian Western and Central Arctic were not available, consequently, all ship movements in these areas were dependent solely on local knowledge.

"In 1955 and 1956 the USCGC "Storis" and the USS "Requisite" carried out extensive hydrographic operations in these two areas, which provided all the necessary detail and information for the production of accurate hydrographic charts by the U. S. and Canadian Hydrographic Service.

"During the two navigation seasons these two ships sounded, charted and marked the entire sea route from Alaskan waters to Shepherd Bay. During these operations, three new routes were located via Dolphin Union Straits, Queen Maud Gulf and Simpson Straits which have proved more feasible and practical than the old routes used by local seamen.

"In view of these operations which were undertaken in hazardous circumstances, and in acknowledgment of the benefit to Canada in expanding the development of the Arctic, the Canadian Government has decided to name the feature between Hat Island and the Norden-skiold Islands as "Requisite Channel" and the passage between "Requisite Channel" and the west end of Simpson Strait as "Storis Passage", in order that the work of the "Requisite" and "Storis" may be duly recognized."



Courtesy Maritime Reporter

TABULATION OF UNSAFE PRACTICES

July through December 1957

	Atlantic	Great Lakes and Rivers	Gulf	Pacific	Total
1. Lack of Proper Officer Supervision					
a. Working overside, on stages, etc.		2	1		3
b. Working w/lines or rigging		3		1	4
c. Improper stowage cargo, stores, gear	1	1			2
d. Poor supervision of drills	1	6			7
e. Use and maintenance of equipment	7	5	8		20
f. Other	2	1		1	4
2. Unsafe Access to Vessels					
a. Gangway inadequate (L, W, STR.)	3	15		1	19
b. Gangway improperly secured	5	11	14		30
c. Gangway improperly rigged	7	2	7	1	17
d. Gangway angle too steep	3	6	7		16
e. Gangway not clear at either end	1	6	1		8
f. Ring lifebuoy w/lanyard not at hand	11	19	26		56
g. Insufficient number of gangways	1		2	1	4
h. Water discharging onto gangway		1	1		2
i. Other	6	11		1	18
3. Unsafe Access to Spaces on Board Vessels					
a. Loose or jury rigged ladders	9	1	2	1	13
b. Missing or loose ladder rungs or steps	8	20	5	2	35
c. Ladders deteriorated to a weakened condition	8	24	5		35
d. Cluttered doors or passages	5	4	2	2	13
e. Blocked or locked escape doors or ladders	2	6		1	9
f. Ladders without hand rails	1	11	1		13
g. Other	2	1		2	5
4. Hazards at Deck Openings, Ship's Side, Catwalks, Etc.					
a. Inadequate or no lifelines, chains or rails	12	10	4	5	31
b. No provision for removable lifelines	1	1			2
c. Weakened lifelines, rails or chains	5	3	4	0	18
d. Hatch covers or beams improperly maintained or dangerously piled	5	6			11
e. Hatch beam locking lugs missing or defective	1	5	2	1	9
f. Catwalks, gratings not provided or deteriorated	1	9	1		11
g. Defective F. O. tank vents, screens, check valves	9	16	14		39
h. No guards or rails at deck openings		9	1	2	12
i. Other	8	7	4		19
5. Hazardous Cargo Handling Gear					
a. Safe load not marked on booms			13		13
b. Use of deteriorated cable, lines, hooks, etc.		1			1
c. Improper rigging (guys, etc.)	1				1
d. Improper use of cargo gear	1				1
e. General poor maintenance		2	1		3
f. Other				1	1
6. Hazardous Conditions in Use and Maintenance of Life Saving Equipment					
a. Faulty controls (limit, disconnect switches, etc.)	2	10		5	17
b. Safety devices bypassed or missing		1			1
c. Faulty boat releasing gear	3	3	13	1	20
d. Defective pulleys or wheels on davits	1		1	3	5
e. Improper stowage—life ring buoys	2	4	3	1	10
f. Lifeboat not properly secured		3			3
g. Poor maintenance of required equipment	17	6	6		29
h. Other		6	2	4	12
7. Ventilation Hazards					
a. Improper ventilation of confined spaces	1	1	2		4
b. Accumulation of grease and dust in vents	2	18		1	21
c. Gas masks, F. S. Lamp, etc., improperly maintained and inaccessible		2	4		6
d. Use of toxic solvent in confined spaces	1				1
e. Faulty equipment		1	7		8
f. Other			9	3	12
8. Lighting Hazards					
a. Exposed wiring or fixture connections	7	27	1	1	36
b. Long or defective extension cords	5	15	2		22
c. Insufficient light at gangways, ladders, etc.	1	2	1	1	5
d. Improperly secured or jury rigged wiring	1	3		2	6
e. Defective switches, fixtures, wiring	10	18	8	2	38
f. Vapor globes & guards missing from lights in hazardous areas	3	3			6
g. Other		2	2		4
9. Electrical Equipment Hazards					
a. Portable equipment not guarded	7	9	3	1	20
b. No guard, rubber mat or drip shield	3	9	7		19
c. Overfused circuits		2	14	1	17
d. Other	4	13	16	4	37
10. Hazardous "Hot Work"					
a. Disregard of precaution while welding	1		3	1	5
b. Lack of valid gas-free certificate			7		7
11. Hazardous Deck Conditions					
a. Oil spills on deck	8	16	6	2	32
b. Loose or oily floor plates, gratings, etc.	4	1	8		13
c. Cluttered decks	4	6	6	3	19
d. No deck battens or wood gratings where needed		1			1
e. Floor plates, gratings, supports wasted	1	5		2	8
f. Oil and debris in bilges, etc.	5	3		1	9
g. Other	7	9	1	4	21

Over

TRAPS FOR THE UNWARY

This article on personal injuries could be given other titles such as "Fools Rush In," or "He Put His Foot in It." It has to do with the injuries caused by failure to look where one is going, with some reference to special dangers and pitfalls.



There is limited room on a ship at best. All traffic passageways should be kept clear of unnecessary obstructions, such as hatch covers, cargo gear, ship's stores, and refuse. When such obstructions as cleats, pad eyes, and the like are unavoidable, they should be painted a distinct color, such as white or bright orange, to attract attention.

Adequate light should be provided at all ladders, gangways, deckhouse entrances, alleyways, and for passageways over deck cargo. Entering any

dark compartment or hold without safe and proper flashlight is highly dangerous and the use of matches or open lights should be forbidden. A safety chain should be kept across the door to the shaft alley escape trunk.

All openings without coamings or with low coamings should be safeguarded. Hawsepipes on the forecastle deck should be covered or railed off. Open manholes and engineroom floor plates removed for access can cause broken legs. Where the ship's accommodation ladder is in an almost horizontal position, or when any other runged ladder is at a similar angle, duck boards with cleats should be secured in place on them as walkways.

Vertical ladders, such as hold ladders and Jacob's ladders, should be inspected frequently for damage, particularly cargo hold ladders which are subject to damage by drafts. Jacob's ladders should be kept free of grease or other slippery substances and should never be secured to a pipe or chain hand rail. Personnel climbing a ladder or mounting steep steps should keep their hands free and use the man ropes or grab rails.

Where the deck, outside of the machinery spaces, is oily, sprinkle sawdust on it. In the machinery spaces wipe it as clean as possible. Don't wear old, run-down, or greasy shoes or any other footgear that detracts from sure-footedness. When the ship is rolling heavily or shipping green water, rig a wire lifeline with sufficient ladders. Finally, don't step into a coil or bight of a slack mooring line or other working gear, nor, in the interest of posterity, straddle one.



APPENDIX

NAVIGATION AND VESSEL INSPECTION CIRCULAR NO. 1-58

January 18, 1958

Subj: Priority of inspection of vessels subject to the Act of 10 May 1956 (PL 519)

1. **Purpose.** To inform owners, operators and other interested persons of the Coast Guard inspection program concerning vessels which on 1 June 1958 will become subject to the Act of 10 May 1956.

2. **Discussion.** The subject law requires the inspection of passenger carrying vessels which carry more than six passengers and becomes effective 1 June 1958. The strict terms of the law make no exemption for types of vessels such as:

a. Training vessels used by schools, clubs, etc.

b. Vessels operated by private organizations for the purpose of raising funds.

c. Private yacht club launches.

d. Vessels owned or operated by the Boy Scouts of America and similar organizations.

However, in accordance with the obvious intent of the law, the Coast Guard will initially place primary emphasis upon the immediate inspection of vessels which are normally engaged in serving the general public. To that end, the inspection of vessels in the above and similar categories will be deferred pending the completion of the inspection of vessels in common carrier type service.

TABULATION OF UNSAFE PRACTICES

July through December 1957

	Atlantic	Great Lakes and Rivers	Gulf	Pacific	Total
12. Machinery Hazards					
a. Guards on moving machinery inadequate.....	8	17	5	4	34
b. Boiler water gage glass not shielded.....	1	6	1		8
c. Steam lines improperly lagged or secured.....	4	6	3		13
d. Faulty relief valves.....	3		3		6
e. Improper maintenance of equipment.....	1	3	5		9
f. No relief valve or reducing valve.....	2		1		3
g. Valve subjected to steam & water pressure.....	1	3	2		6
h. Defective or missing pipe guards or hangers.....	4	3	13	1	21
i. Other.....	13	2	15	8	38
13. Tank Vessels					
a. Ullage holes open without flame screens.....	14	35	17		66
b. Cargo tanks open but not gas-free.....	4	6	3		13
c. Faulty P. V. valves and flame screens.....	5	5	2		12
d. Other.....	7	14	11	1	33
14. Miscellaneous					
a. Firefighting equipment defects.....	2		1	1	4
b. Others not included above.....	3	9			12
Grand Total	297	533	340	87	1257

The question of whether chartered vessels are subject to inspection is of course resolved by the legality of the instrument and the compliance with the terms thereof. Generally speaking, each case will be resolved on its own merits. However, in the initial period following the effective date of the Act, the Coast Guard will direct its efforts to the inspection of chartered vessels obviously used for commercial purposes.

The priority of inspection established herein will in no way restrict an Officer in Charge, Marine Inspection, from conducting an inspection on any vessel subject to PL 519, including those which will be generally deferred, if he has reason to question the suitability of the vessel for its service.

3. *Requirement.* The owners of all vessels subject to the Act of 10 May 1956 (PL 519) should make early application for inspection to the nearest Coast Guard Marine Inspection Office. Such application will be acknowledged. The owners of the types of vessels specifically mentioned in paragraph 2 and similar types should not expect early service but will be advised in general terms of when inspection can be expected.

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

ARTICLES OF SHIPS' STORES AND SUPPLIES

Articles of ships' stores and supplies certificated from 1 February to 28 February 1958, 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

Axon Chemical Co., Inc., 233 Erie Street, Buffalo 2, N. Y., Certificate No. 202, dated 6 February 1958, AXION FUEL OIL TREATMENT.

Axon Chemical Co., Inc., 233 Erie Street, Buffalo 2, N. Y., Certificate No. 204, dated 6 February 1958, AXION DIESEL FUEL OIL TREATMENT.

Axon Chemical Co., Inc., 233 Erie Street, Buffalo 2, N. Y., Certificate No. 210, dated 6 February 1958, AXION ELECTRICAL CLEANING SOLVENT NO. 500.

AFFIDAVIT

The following affidavit was accepted during the period from 15 January 1958 to 15 February 1958:

Bethlehem Steel Co., Inc., Shipbuilding Division, Brooklyn 56th St. Yard, Brooklyn 20, N. Y., PIPE FLANGES & Bolting.

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, except for cost publications which may be obtained upon application to the Superintendent of Documents, Government Printing Office, Washington 25, D. C. Date of each publication is indicated following title.

CG No.	Title of Publication
101	Specimen Examinations for Merchant Marine Deck Officers. 1-50
108	Rules and Regulations for Military Explosives. 5-15-54
115	Marine Engineering Regulations and Material Specifications. 3-1-56
123	Rules and Regulations for Tank Vessels. 10-1-56
129	Proceedings of the Merchant Marine Council. Monthly Motorboat Safety. 1957.
169	Rules to Prevent Collisions of Vessels and Pilot Rules for Certain Inland Waters of the Atlantic and Pacific Coasts and of the Coast of the Gulf of Mexico. 1-2-57
172	Pilot Rules for the Great Lakes and Their Connecting and Tributary Waters. 7-1-57
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. 3-5-54
176	Load Line Regulations. 11-1-53
182	Specimen Examinations for Merchant Marine Engineer Licenses. 5-1-57
184	Pilot Rules for the Western Rivers. 7-1-57
190	Equipment Lists. 3-1-56
191	Rules and Regulations for Licensing and Certifying of Merchant Marine Personnel. 9-15-55
200	Marine Investigation Regulations and Suspension and Revocation Proceedings. 4-13-53
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. 6-16-52
249	Merchant Marine Council Public Hearing Agenda. Annually
256	Rules and Regulations for Passenger Vessels. 3-1-57
257	Rules and Regulations for Cargo and Miscellaneous Vessels. 6-1-55
258	Rules and Regulations for Uninspected Vessels. 7-1-55
259	Electrical Engineering Regulations. 6-1-55
266	Rules and Regulations for Bulk Grain Cargo. 2-13-53
267	Rules and Regulations for Numbering Undocumented Vessels. 1-15-53
268	Rules and Regulations for Manning of Vessels. 9-3-57
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	Motorboats. 7-1-57
293	Miscellaneous Electrical Equipment List. 2-1-57
320	Rules and Regulations for Artificial Islands and Fixed Structures on the Outer Continental Shelf. 1-2-57

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 \$15.00 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 February 1958

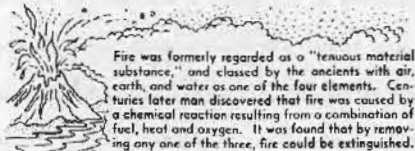
The following have been modified by Federal Registers:
None.



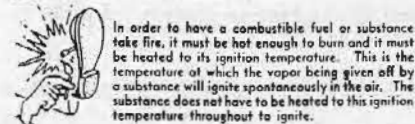
THE American Waterways Operators, INC. SAFETY NEWS

HOT FACTS ON FIRE

WHAT IS FIRE? FRIEND OR FOE



IGNITION TEMPERATURE



The best way to combat fires is to prevent them. Fire prevention must become a daily habit. Make a habit of keeping things squared away and shipshape at all times.



NATIONAL SAFETY COUNCIL

REPORTING A FIRE



PLAN OF ACTION



FIRE PREVENTION CHECKLIST

Fire Extinguishing Apparatus

- In proper place ☐
- Unobstructed ☐
- Clearly marked ☐
- In working order ☐

Housekeeping

- Premises free of combustible materials ☐
- Metal containers for oily rags ☐
- No accumulations of rubbish ☐
- Safe storage of flammables ☐
- No leaks and drippings of flammables ☐
- Passageways clear of obstacles ☐

Electrical Equipment

- No bare wiring or badly worn insulation ☐
- Ground connections clean and tight ☐
- Fuse and control boxes clean and closed ☐
- Motors and tools free of dirt and grease ☐
- No lights near combustible materials ☐
- No poor splices ☐
- No makeshift wiring ☐

Heat and Flame

- No Smoking areas clearly indicated ☐

FIGHTING FIRE USING THE RIGHT EXTINGUISHING AGENT

Type of Extinguisher	For What Kinds of Fire	Contents	How To Start	Range and Duration
SODA-ACID	CLASS A (Wood, paper, textiles, etc.)	Water solution of bicarbonate of soda and sulfuric acid.	Turn over	30 to 40 feet
PUMP TANK		Plain water	Pump by hand	50 to 55 seconds (2 1/2 gallon size)
GAS CARTRIDGE	CLASS A ("Loaded stream" model is also good on Class B)	Water and cartridge of carbon dioxide	Turn over and bump	DANGER: Do not use these water base extinguishers on electrical fires
FOAM	CLASS A and CLASS B (Oil, gasoline, paint, grease, etc.)	Water solution of aluminum sulfate and bicarbonate of soda	Turn over	
CARBON DIOXIDE	CLASS B and CLASS C (Live electrical equipment.)	Carbon dioxide	Pull pin and open valve	6 to 8 feet about 42 seconds (15 lb. size)
VAPORIZING LIQUID	NOTE: If nothing else is available, these extinguishers may have some effect on small Class A fires.	Carbon tetrachloride and other chemicals. CAUTION: Avoid using this type in small, closed places.	Turn handle, then pump by hand	20 to 30 feet 40 to 45 seconds (1 quart size)
DRY CHEMICAL		Bicarbonate of soda with other dry chemicals and cartridge of carbon dioxide	Pull pin and open valve (or press lever), then squeeze nozzle valve	About 14 feet 22 to 25 seconds (30 lb. size)

'Twas too bad about Captain DePew.
He thought safety was up to his crew.
No meetings—no training—
No time for explaining—
'Twas too late on the date the thing blew!