

25TH ANNIVERSARY JANUARY 1, 1969

PROCEEDINGS

OF THE MERCHANT MARINE COUNCIL

January 1969

IN THIS ISSUE . . .

A Lakes Attorney Looks at Safety . . .

Damage to Motorboats With Loss of Life on Lake Michigan . . .

THIS COPY FOR NOT LESS THAN 20 READERS-PLEASE PASS IT ALONG

CONTENTS

FEATURES

A Lakes Attorney Looks at Safety
Loss of and Damage to Motorboats With Loss of Life on Eastern
Coast of Lake Michigan

DEPARTMENTS

Nautical Queries	15
Amendments to Regulations	16

COVERS

FRONT COVER: The Port of Toledo's overseas cargo complex. The facility can berth up to eight ships and handle a variety of general cargo. The facility is accessible to most ships without the use of a tug, thanks to the straight-line design of its wharf, which is nearly a mile long. *Courtesy Robert Packo-Toledo*.

BACK COVER: A tight squeeze in the Welland Canal. The 27.6 mile waterway is a vital link in Great Lakes trade, joining Lake Erie and Lake Ontario.

DIST. (SDL NO. 88)

A: abcdew(2); fghijklmnopqrstuv(1) B: n(40); c(16); e(5); f(4); gh(3); bdikmpq(1) C: abcdefgimnou(1) D: i(5); abdefklmruvw(1) E: d(1) F: p(1) Lists 141M, 111,203

PROCEEDINGS

OF THE

MERCHANT MARINE COUNCIL

Published monthly at Coast Guard Headquarters, Washington, D.C. 20591, 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 Director of the Bureau of the Budget, February 26, 1968.

The Merchant Marine Council of The United States Coast Guard

Admiral W. J. Smith, USCG Commandant

Page

4

9

Rear Admiral C. P. Murphy, USCG Chief, Office of Merchant Marine Safety, Chairman

Rear Admiral Roderick Y. Edwards, USCG Chief, Office of Public and International Affairs. Alternate Chairman

Captain James B. McCarty, Jr., USCG Deputy Chief, Office of Merchant Marine Solety, Vice Chairman

Rear Admiral D. B. Henderson, USCG Chief, Office of Engineering, Member

Rear Admiral R. W. Goehring, USCG Chief, Office of Operations, Member

Rear Admiral W. L. Morrison, USCG Chief, Office of Boating Safety, Member

Rear Admiral K. S. Harrison, USCGR (Ret.) Chief Counsel and Member

Captain G. H. Read, USCG Chief, Merchant Vessel Personnel Division, Member

Captain Eric G. Grundy, USCG Chief, Hazardous Materials Division, Member

Captain Winford W. Barrow, USCG Chief, Merchant Vessel Inspection Division, Member

Captain W. L. Aitkenhead, USCG Chief, Merchant Marine Technical Division, Member

Dr. Charles C. Bates

Science Advisor to the Commandant, Member

Mr. Robert O. McDanald Chief, Marchant Vessel Documentation Division, Member

Captain Leonard E. Penso, USCG Executive Secretary and Member

T. A. DeNardo, Acting Editor

1944—January 1—1969

A MESSAGE FROM THE COMMANDANT ON THE 25th ANNIVERSARY OF THE "PROCEEDINGS"

With this issue, the "Proceedings of the Merchant Marine Council" marks 25 years of service to the maritime industry. For the past quarter of a century the "Proceedings" has served as a link between the Coast Guard and the maritime industry. In an introductory message to the first issue Vice Adm. R. R. Waesche, then Commandant, outlined the goals of the "Proceedings":

This new publication, "Proceedings of the Merchant Marine Council," represents another step toward cooperation and collaboration in administration. It will bring each month to the members of the industry and other interested persons information in convenient form concerning action taken by the Coast Guard on matters within the cognizance of the Council. Items of interest on other matters relating to ships and shipping will also be included from time to time. It is hoped that the "Proceedings" will prove to be of value to the maritime fraternity.

Since those words were written, momentous changes have occurred in the world and in the maritime industry. Reflecting these changes, the "Proceedings" has published a wealth of material on increasingly diverse subjects. The articles published over the years have had only one thing in common: attention to safety.

Safety is a matter of concern to everyone, and it is perhaps this unity of interest that has caused the development of the "Proceedings." Surely the success of the magazine is the result of the efforts of all those who have written for it, plus the constant attention and interest of the readers.

I wish to take this opportunity—the 25th Anniversary of the "Proceedings"—to express my gratitude to all of those who have contributed to the success of the publication.

With continued interest, the "Proceedings" will continue to provide insight into the maritime industry and the Coast Guard throughout the years of change ahead.

> W. J. SMITH, Admiral, U.S. Coast Guard, Commandant.

A LAKES ATTORNEY LOOKS AT SAFETY

Thomas O. Murphy, Partner

Johnson, Branand & Jaeger, Cleveland, Ohio

From an address before the 1967 Marine Section of the National Safety Congress and Exposition.

THIS ARTICLE DEALS with some of the ways in which a lawyer whose principal occupation is representing Great Lakes vessel operators has an opportunity to participate in his clients' safety programs. It will not be the intention of my comments to examine the status of the law but rather to consider the manner in which the lawyer's knowledge of the law may contribute directly to the company's safety program. It follows, of course, that some reference to the law itself necessarily must be injected into this discussion, but it will be my objective to keep it to a minimum.

We on the lakes are involved in a vessel operation which is unique in a number of respects from oceangoing operations. In addition to the traditional Great Lakes bulk freighter, commonly known as a straight decker, self-unloaders equipped with their own unloading booms are commonplace on the lakes. Crane vessels and cement carriers are other examples. These vessels often are called upon to deliver cargoes to remote areas which present special problems of navigation and of ingress and egress to crewmembers. With the advent of bow thrusters in recent years there are even greater challenges in the field of safety because large vessels are able to proceed unassisted into and out of almost any port which provides sufficient water.

Oftentimes the so-called docks are nothing more than unimproved land along a riverbank, and deep draft vessels are unable to move in alongside the dock. In such instances it is necessary to use a small skiff for the purpose of getting crewmembers to the land to handle mooring lines. The special problems relative to safety under such circumstances are readily apparent. After the vessel is moored and unloading is in progress, such problems continue for seamen taking shore leave. It is not necessary for me to enumerate the particular hazards arising when a crewmember returns in the dark of night to reboard by means of a small skiff and a ladder hanging over the vessel's side. Last year I had the experience of performing this sort of operation at 1:30 in the morning and I don't mind admitting that I heaved an obvious sigh of relief upon finally reaching the safety of the riverbank.

Lake vessels are in and out of port with regularity, often as frequently as once every 24 hours and sometimes twice in that period. This condition creates additional problems with reThe author's article on "A Lake Attorney Looks at Safety" represents the author's personal opinions only and does not necessarily represent the official views of the U.S. Coast Guard—Editor.

spect to shore leave, crew turnover, and training. Whereas a salt water vessel can be expected to be at sea for some period of time to afford an opportunity to break in and train new men, a lakes vessel making port frequently is extremely handicapped in the opportunities to train an inexperienced hand. Though it may not be a tremendous difficulty to explain the work to him in a general way, it may be a real problem to find an opportunity to acquaint him with safe methods of performing his various duties. Language barriers presented by the influx of seamen of recent foreign extraction make the whole picture more complicated.

Also unique to the Great Lakes vessel industry is the fact that navigation is seasonal over a period generally extending from mid-April to the end of November or early December. Consequently, fitout and layup of each vessel occurs annually with accompanying situations involved in safety programs. Very frequently both fitout in the spring and layup in the fall may have to be accomplished



Two lake freighters pass in the narrow channel of the Welland Canal. In this case, a crowding situation caused one of the vessels to sustain damage by rubbing the submerged channel bank.

under adverse weather conditions. If you have had an opportunity to spend any time aboard a dead vessel in winter you know how bitterly cold it can be. This is the situation that seamen face upon returning for spring fitout.

However, by far the more serious safety problems occur at the end of the navigation season and during layup. By this time the seaman's primary interest is in ending the job and getting home to his family. Men who have worked side by side all season suddenly find themselves becoming irritated with one another. Severe fall storms and other adverse weather conditions only complicate the situation further. Carelessness in performance of the work becomes readily apparent and at such times it is most difficult to enforce safety procedures. Consequently, accidents occur.

One distinct advantage of seasonal navigation is that management is able to schedule meetings with vessel officers prior to commencement of navigation and to discuss with them matters connected with the various aspects of vessel operations. Such meetings afford an opportunity for the lakes attorney to meet with vessel personnel and discuss legal problems. Quite naturally, by far the greatest proportion of those problems is concerned with one aspect or another of safety. Over the past few years it has been my privilege to address groups of officers from a number of fleets on several occasions.

I have always approached such meetings on the basis that a primary function of the attorney is to inform vessel officers of the manner in which statutes, regulations, and other aspects of the law are applied by the courts to the everyday occurrences aboard their vessels. If those involved in day-to-day navigation situations and the constantly occurring challenges which face individual crewmembers are helped to understand their duties and obligations as presented and interpreted by the law, they will be better equipped to anticipate the development of dangerous conditions. Hopefully, such knowledge will minimize the number and seriousness of accidents and, in many cases, prevent accidents from occurring.

Seamen are acutely aware of the fact that their duties, rights and obligations established by law are interpreted and enumerated by judges and other officials who may have little or no familiarity with actual conditions occurring aboard ships. For that reason it seems inconsistent to the average seafarer that his actions and conduct should be evaluated by laymen who do not have firsthand knowledge of his living and working conditions. Admittedly, this generally is true, but the existence of this condition affords the attorney an unusual opportunity, if not a specific responsibility, to bridge the gap between the courts and the men who earn their livelihood aboard ships.

In the courtroom it is our job to present evidence in such a way that the judge and jury will be thoroughly familiar with the intricacies of the particular activity engaged in at the time of the casualty involved. As you can well understand, the attorney is not always completely successful in this task simply because of the difficulty of recreating shipboard conditions in the courtroom. Since collision and other admiralty cases usually are tried before one judge without a jury, the problem is not so great in that field.

However, in personal iojury actions the task of transferring shipboard conditions into the courtroom is compounded because such cases most generally are tried before a jury. Thus, 12 individuals who probably have no knowledge whatsoever of ship operations must be acquainted with the conditions under which the seaman's injury, or alleged injury, is supposed to have occurred. From the vessel operator's standpoint, the difficulties presented are almost insurmountable. In the first place, we all know that shipboard conditions by Thomas O. Murphy is a graduate of Kenyon College and holds a law degree from Western Reserve University Law School. He served with the U.S. Air Corps in World War II. Mr. Murphy was admitted to the Ohio State Bar in August of 1950, at which time he joined the firm of Johnson, Branand & Jaeger in Cleveland, Ohio, specializing in the field of admiralty and maritime law. He was admitted as a partner in the firm in 1958, a position which he presently holds.

their very nature present constant hazards. Consequently, it is not surprising that the average juror considers the mere performance of any work aboard ship to be dangerous. The well-known Jones Act requires that a seaman be furnished with a safe place to work. The fact that legislation had to be passed to combat shipboard hazards makes it very difficult to convince 12 jurors that a seaman's injury did not result from some fault attributable to the vessel. All of you who are involved in personnel safety are well aware of the problems inherent in this situation.

As mentioned previously, the other aspect of the attorney's obligation is to help the seaman to understand the views of the courts toward his work. Such opportunities are provided, in part at least, at vessel officer meetings. My discussions of applications of the law generally are divided into two principal categories, the first dealing with safety of the vessel through interpretation of the laws of navigation, and the second being directed toward the safety of personnel. Problems arising with respect to personnel safety may be separated into numerous categories and, of course, by far the greater amount of time is devoted to those discussions.

It has been my observation that seamen best understand and absorb technical information by reference to experiences with which they are familiar. Consequently, it always seems advisable to make the presentation by reference to illustrations based upon actual occurrences. As lawyers representing more than one vessel operator, we have the advantage of heing able to discuss with at least some familiarity many different and varied types of fact situations to illustrate the particular point of law being stressed at the time. When the information is given in this manner the seaman immediately identifies himself with a familiar situation, generally listens to the point being made and absorbs what is being said.

The importance of stressing vessel safety through interpretation of navigation laws, rules and regulations cannot be overemphasized. Too often today a master or other vessel officer is lax in following regulations and this laxity frequently results in collisions or other vessel casualties. Time and time again it is necessary to stress the fact that aids such as radar and radiotelephone cannot and do not take the place of passing signals, except under very special circumstances.

In 1966 I was in the pilothouse of a vessel proceeding upbound in a congested area of the Detroit River. There was considerable traffic in both directions and when we caught up with the ship immediately ahead of us our captain called on the radiotelephone and asked permission to overtake and pass on the two whistle side. Permission to do so quickly was given over the telephone and we proceeded to overtake the other vessel on her port side.

When the two ships were approximately abreast, I casually mentioned to the captain that it apparently was not necessary to exchange whistle signals since the agreement had been made by radiotelephone. Of course he immediately commented that whistle signals still were required and proceeded to sound two blasts on the whistle. There is no question in my mind that no whistle signals would have been exchanged but for my comment and the captain's realization that I knew he should have done so. One can't help but wonder from such an experience how often the rules are circumvented when strangers are not around to observe.

Perhaps the rule of navigation most frequently violated and least understood is Rule 26¹ of the Rules of the Road for the Great Lakes, often called the "Stop and Back Rule," which requires a vessel to sound a danger signal and stop and reverse whenever in doubt as to the course or intention of an approaching vessel. There are corresponding rules covering international and inland waters and all have been interpreted by the courts substantially in the same manner.

In discussing this rule with masters and other navigation officers, it becomes readily apparent that the primary confusion arises with reference to the exact time when doubt arises regarding the course or intention of an approaching steamer. The standard applicable was enunciated by the Supreme Court of the United States in an early case entitled *The New York*, 175 United States Reports, page 187, decided in 1899. The particular language of the court is as follows:

> The lesson that steam vessels must stop their engines in the presence of danger, or even of anticipated danger is a hard one to learn, but the failure to do so has been the cause of the condemnation of so many vessels that it would seem that these repeated admonitions must ultimately have some effect. We cannot impress upon the masters of steam vessels too insistently the necessity of caution in passing or crossing the course of other vessels in constricted channels.

Naturally there are special circumstances where Rule 26 is not applicable, and the Rules of the Road provide for such situations. However, in the average case of two vessels ap-



Central control room of Welland Canal Authority. Each lock has its own closed-circuit TV camera to keep an eye on happenings within the lock.

proaching each other, the rule has been strictly construed in conformance with the above language of the Supreme Court, and this has been particularly true of courts having jurisdiction over Great Lakes admiralty litigation. In discussions of this rule we attorneys quickly became aware of the lack of understanding by the navigation officer of the stringent duty imposed upon him. Let me illustrate.

When, two vessels approach under any circumstances calling for passing signals and there are complications, frequently from fog or other weather conditions, in the usual case a careful and prudent master will slow his speed to bare steerageway, if necessary. The critical point arises when the master begins to wonder about some aspect of the navigation of the other vessel, such as, "Why haven't I heard another signal?" or, "Why does it happen that the last two signals had the same bearing?" or, "I've lost him in my radar momentarily. Where is he?"

In most cases the navigator, so in doubt, is not aware that he is violating the rule by not immediately reversing his engines full speed astern. Noting that his vessel's speed is reduced to bare steerageway, he will take no action until some further information is received about the other vessel. Then it is too late. Very often there is a collision which might otherwise have been avoided, even though the other vessel was grossly negligent.

Numerous other areas with respect to the navigation and handling of vessels come under consideration in spring meetings. One point of general safety which always is stressed is that the navigator should not insist on his privilege, if it means that a collision will ensue. This is nothing more than the old adage, "It is better to be a live coward than a dead hero." While one vessel normally may assume that the other will comply with the rules, there is no right to continue ahead into an avoidable collision.

Other aspects of navigation come under consideration, such as the sta-

² EDITOR'S NOTE: The exact wording of Rule 26 in this matter is as follows: "* * * and if the vessels shall have approached within half a mile of each other both shall reduce their speed to have steerageway, and, if necessary, stop and reverse."

tioning and use of lookouts. Courts consider a properly stationed lookout to be essential, particularly in fog. Earlier in this discussion I touched upon the subject of overtaking and passing. The law applicable in that connection becomes particularly important in narrow channels and rivers.

Another subject upon which vessel officers require clarification from a legal standpoint involves their obligations in the course of harbor towing. On the lakes we have a different situation than that which exists in salt water ports. The captain of a towing tug does not board the vessel to act as pilot, but remains on his tug. Thus the legal relationship between the parties to the tow is considerably different than in the salt water situation. If two tugs are engaged, one forward and one aft, they are completely in charge of the tow and referred to by the courts as the "dominant mind." The vessel's responsibility is to stand by ready to use her engines upon signal from the tugs, but not to interfere with the operation except in special situations.

In cases where only one tug is engaged, usually on a bow towline, the courts consider the tow to constitute a joint undertaking between the tug and the vessel. In such instances, each is responsible for its own actions. Explanation of the differences between these legal relationships is helpful to vessel officers in promoting safe operations.

When its comes to the matter of covering the multitude of subjects involved in personnel safety, it is difficult to know where to begin. One approach is to commence with discussion of the accidents which have occurred recently within the fleet manned by the officers being addressed. The facts of each occurrence are considered, followed by comments on the legal obligations involved and the manner in which the accident might have been avoided.

Perhaps the most outstanding challenge to the attorney in this area is to get across to the vessel officer the extent of his obligation of supervision and direction under the law. When you tell a mate that it is not enough that he merely give instructions regarding the manner in which a certain task should be performed, but rather that it is his responsibility to make certain that the work is being carried out as directed, the response often will be very explosive. First he will tell you that he does not have time to act as a baby sitter. Next he will point out that if a man is an AB he should know how to do the job. Also it will be said that the accident resulted from the injured seaman's own fault and that he should know better.

All of these answers and others probably are correct, but they do not absolve the vessel from legal liability if an accident results, in whole or in part, from improper or incomplete supervision. Therefore, whenever the opportunity arises, the stringent obligations imposed by the Jones Act are discussed.

The duties arising out of the necessity of maintaining a seaworthy vessel are considered. As most of you know, today a vessel may be said to be unseaworthy if a seaman is not "equal in disposition to the ordinary man of the calling." Upon hearing that definition, most officers merely shake their heads in bewildennent at what they consider to be a ridiculous concept. Application of this principle arises in most instances when someone sustains injury resulting from an altercation in which some sort of a weapon was involved. Since no one can anticipate when two seamen will become involved in a fight, about the only advice of any value is to suggest that men of known violent disposition be discharged as soon as possible. However, the real problem is that the violent disposition may not become known until after the incident resulting in injury.

Because of the nature of the trade of most Great Lakes vessels, it is not feasible to use gangways for boarding purposes. This results from the fact that most loading operations and many unloading operations necessitate frequent shifts along the face of the dock. For that reason, boarding ladders usually are used. Although by far the greater number of ladders now are equipped with safety steps and hand rails, accidents occur during their use. The example which I cited earlier may be the exception, but constant vigilance still is required.

Since an attorney frequently is called upon to conduct shipboard investigations, he has firsthand knowledge of the problems which may arise, such as an experience which occurred to me last August. Upon completing my business with the captain shortly after midnight (it seems these things always happen at night), I walked along the deck talking with a seaman and approached the head of the ladder. As is customary, a landing platform was in place on the rail and the floodlight was illuminated. The watchman usually stationed at the ladder was not in the vicinity but to all outward appearances the ladder was properly positioned for use. Continuing my discussion with the seaman, both of us glanced over the side but noticed nothing unusual in the partial darkness. As soon as I mounted the ladder and my full weight was upon it, the ladder started to descend. My head disappeared below the rail and my companion exclaimed "Oh, my God!" After the ladder dropped 6 or 8 feet, it struck the dock abruptly and, putting it mildly, I received quite a jolt.

What had happened was that the watchman had left his station momentarily for personal reasons. Being a conscientious seaman he had raised the ladder off the dock so that any one returning from shore leave would be prevented from ascending without the watchman being present. Upon doing so, he had tied the ladder rope casually, expecting to return very shortly. My weight was just enough to loosen the knot and allow the ladder to drop to the dock. Fortunately, I had a tight grip on the hand rails. Experiences such as

(Continued on page 18)

LOSS OF AND DAMAGE TO MOTORBOATS WITH LOSS OF LIFE ON EASTERN COAST OF LAKE MICHIGAN

COMMANDANT'S ACTION ON---

The Marine Board of Investigation convened to investigate the loss of and damage to numerous vessels on the Eastern Coast of Lake Michigan during high winds and heavy seas on September 23, 1967, with loss of life.

1. The record of the Marine Board of Investigation¹ convened to investigate subject casualty has been reviewed and the record, including the findings of fact, conclusions and recommendations is approved subject to the final determination of the cause of the casualties by the National Transportation Safety Board.

2. In spring, 1966, the Department of Conservation, State of Michigan, initiated a program, which is to be continued and expanded in future years, of stocking selected rivers and streams within the State with oncorhynchus kisutch, commonly referred to as "coho salmon." The principal rivers stocked in 1966 were the Manistee and Platte and their tributary waters. By August 1967, coho salmon had begun to appear in great abundance in the waters of Lake Michigan between Manistee and Empire. This attracted an increasing number of boatmen. During the last few weekends in August, with particularly favorable weather prevailing, several hundred boats fished in Lake Michigan daily. On Labor Day weekend September 2 to 4, 1967, over 1,500 boats engaged in salmon fishing. On the weekend of September 9 to 10, an estimated 2,000 boats were on Lake Michigan between Manistee and the Platte River, most engaged in coho fishing, and a sizable number of these operating several miles offshore. The number of boats decreased somewhat after that weekend, but during the remainder of September over 200 boats were on the lake daily with a substantially larger number on weekends. In marked contrast to

¹ Due to space limitations the Coast Guard record of the Marine Board of Investigation is not printed herein. this, the boating season during previous years in the areas of Frankfort and Manistee ended with the Labor Day weekend, and normally not more than a dozen boats ventured out into Lake Michigan from those ports on any given day after that.

3. On September 23, 1967, approximately 500 motorboats, mainly outboards of 16 feet or less, were underway in eastern Lake Michigan between Empire and Manistee, Mich., engaged in salmon fishing. A large number of these craft had been launched from ramps at these and intermediate communities. A number of boats also launched directly into Lake Michigan from the nearby beaches. Many of the boats proceeded to Platte Bay, the area of reportedly good fishing. The weather began to deteriorate at about 8 a.m. Progressively from late morning through the afternoon, boatmen in the Platte Bay area discontinued fishing and beached their craft in the immediate vicinity or attempted to return to their launch sites. Boatmen choosing the latter course of action, in departing sheltered Platte Bay, exposed themselves to the more severe sea conditions along the coastline. About 200 boats attempting this open lake passage found it difficult and headed for the nearest beach area, and attempted to land through a heavy surf. Seven persons lost their lives, and all were occupants of boats which had capsized in or near the surf. At least 16 boats were damaged in making beach landings and a number of other boats swamped and/or capsized and were damaged but removed from the beaches before count could be made. Most occupants of the boats involved did not wear lifesaving devices although they were available to them. Fifteen persons were taken to hospitals suffering from exposure and water inhalation. None of those hospitalized were incapacitated for more than 72 hours. At least 150 persons and 75 boats were assisted from conditions of peril or distress by rescue forces.

ACTION CONCERNING THE RECOMMENDATIONS

Recommendation 1 concerning further meetings between the U.S. Coast Guard, U.S. Weather Bureau, the



This 16-foot boat, powered by a 65 hp. motor, was capsized by heavy waves while attempting to reach shore at Empire, Mich. Three men were in the boat at the time of the incident, but only one survived. The boat was equipped with six adult buoyant vests, but none of the men wore one at any time during the ill-fated trip.

Michigan Department of Conservation and other State, county, and municipal agencies for consideration and action in education, in boating safety, expanded communications, extended weather reporting and forecasting, is being accomplished.

Commander, 9th Coast Guard District has reported that a meeting was held on November 21, 1967, in Lansing, Mich., to discuss protection of outdoorsmen from hazardous weather. The Michigan State Police, Michigan Department of Conservation, U.S. Weather Bureau, U.S. Power Squadron, Michigan Conservation Clubs, American Red Cross, and U.S. Coast Guard were represented. An appraisal was made of existing means of disseminating weather information and how this might be improved through the efforts of interested groups. A further meeting was held January 17, 1968, in Lansing, Mich. The Michigan State Police, County Sheriff's Office, Michigan Department of Conservation, U.S. Weather Bureau, and U.S. Coast Guard were represented. As a result of the meeting, it was agreed that:

(a) The Michigan Department of Conservation would assume the responsibility for establishing a prewarning system wherein all agencies involved would be kept continually informed on the status of the salmon migration. (b) The U.S. Weather Bureau would initiate action to increase weather advisories to and for the areas of concentrated fishing activity.

(c) Federal, State, county, and city officials in each of the four operational areas within the State of Michigan (corresponding to State police districts) are holding meetings to establish a coordinated emergency communication system and an emergency operational plan.

(d) The Commander, 9th Coast Guard District will provide guidelines for uniform handling of emergency communications, listings of resources (manpower and equipment) in the respective operating areas, and of service weather disseminating facilities.

Recommendation 2 concerning the feasibility of modifying the storm warning display, will be forwarded to the Weather Bureau of the Environmental Science Services Administration for consideration by that agency. This action will also implement Recommendation $7.^2$

Recommendation 3 concerning the State of Michigan considering means of discouraging boat operators from launching and operating when sea conditions may be or are expected to be hazardous, will be forwarded to the Michigan Department of Conservation.

Recommendation 4 concerning the establishment of U.S. Coast Guard/State of Michigan uniform policy for safety patrols and law enforcement, has been accomplished. On January 26, 1968, a Federal/State boating agreement was consummated with the State of Michigan.

Recommendation 5 concerning deferral of any legislative proposals which would authorize law enforcement personnel to deter small boat operators from operating when hazardous sea conditions exist, until all other means to effect voluntary compliance have been considered, is concurred in.

Recommendation 6 concerning forwarding a copy of this report and a record of the proceedings to the Director, Michigan Department of Conservation, will be accomplished.

Recommendation 8 concerning awarding letters of commendation by the Coast Guard to the respective Masters of the *Inland Seas*, *Jennie Lee*, and the *Island Clipper* for their assistance in search and rescue operations and to the Sheriff, Grand Traverse County, for the rescue services rendered by his forces, is concurred in and will be forwarded to Commander, 9th Coast Guard District for his appropriate action.

> W. J. SMITH, Admiral, U.S. Coast Guard, Commandant.

JUNE 11, 1968.

² Recommendation 7 reads as follows: "That a copy of this report and the record of proceedings be forwarded to the U.S. Department of Commerce, Environmental Science Services Administration, Weather Bureau, for any action that agency may consider appropriate."

ACTION BY NATIONAL TRANSPORTATION SAFETY BOARD

On September 23, 1967, approximately 500 motorboats operated by avid sport fishermen on the eastern coast of Lake Michigan were in a position of peril due to high winds and heavy seas. The extensive loss of and damage to boats involving loss of life was investigated by a U.S. Coast Guard Marine Board of Investigation.

The Marine Board proceedings commenced on October 5, 1967, at Manistee, Mich. A representative of the National Transportation Safety Board attended the proceedings as observer. The Marine Board's report and the Commandant's action thereon are included in and made a part of this report. The National Transportation Safety Board has considered only those facts in the Coast Guard report which are pertinent to the Board's statutory responsibility to make a determination of cause. In making its general recommendations, the Board also considered other Coast Guard fatal accident reports and the annual report, Boating Statistics 1967 (CG-357).

ANALYSIS AND CONCLUSIONS

In analyzing the facts and causal factors of this case, the Safety Board noted some safety problems which are common to the whole field of recreational boating. A study of the Coast Guard investigative reports of fatal boating accidents, and the Boating Statistics, for calendar year 1967, show that capsizing is the predominant cause of fatal boating accidents. The following Coast Guard statistics for 1967 substantiate this fact: Michigan State officials, various sheriff groups, local boatmen, and operators of larger vessels. However, the Safety Board considers the communication facilities then existing to be inadequate for optimum coordinated efforts and is of the opinion that corrective action is indicated. We also feel that the Group Commander at Ludington should have had the authority to exercise on-scene rescue control of the facilities under him, with mobile communications facilities either on shore or afloat.

The weather forecast for the day of this case was accurate, but apparently not known hy most of the fishermen. Small craft warnings were posted at 8 a.m. on September 23, 1967, but many of the boats left prior to that time. Testimony of some of the boaters shows that they attempted to ascertain the weather forecast, but were unable to get it on their car or portable radios. The small craft warning flags displayed at the Coast Guard Stations at Frankfort and Manistee were either not seen. or not heeded, by boats which left after 8 a.m. Some boaters are not familiar with the meaning of this red pennant. Later in the day, boaters were warned by the Coast Guard and Sheriffs' personnel of the weather conditions. Some boaters heeded the warnings and returned. others disregarded them. The Safety Board concurs in the recommendations of the Coast Guard to forecast storm warnings as far in advance as practicable, and broadcast the warning in a more meaningful manner relative to sea conditions in the particular area; and to consider the expansion of the number of warning display sites and to supplement the signals by plainly worded signs. In addition, the Board believes that radio broadcast schedules should be publicized, and made available to boaters who

Types of casualty	1963	Percent	1964	Percent	1965	Percent	1966	Percent	1967	Percent
Grounding		1.1	15	1.3	12	0.9	19	1.4	7	0.5
Capsizing	463	41.9	517	43.4	549	40.4	621	47.1	621	47.3
Flooding	36	3.3	54	4.5	41	3.0	41	3.1	35	2.7
Sinking	100	9.1	89	7.5	152	11.2	101	7.7	91	6, 9
Fire or explosion of fuel	15	1.4	13	1.1	18	1.3	- 23	17	14	11
Other fire or explosion	2	.2			2	1	-0		5	.4
Collision with another vessel	32	2.9	29	2.4	38	28	65	4 9	24	1.8
Collision with fixed object	35	3.2	31	2.6	29	21	32	24	38	2 9
Striking floating object	29	2.6	20	1.7	24	1.8	10		13	1.0
Other casualty to vessel	43	3 9	26	2.2	58	4 3	27	28	43	3 3
Falle overhoard	251	22 7	289	24 2	340	25.0	215	72.0	228	25 8
Falls within heat	201	44. /	403	21. 2	540	20. 0	0	4.3. 5	550	23.0
Stupple by heat or merceller	17	1 5	10	1.6			01	1 6	16	1 9
Other of propener	60	6.0	19	1.0	0	. U	21	1.0	10	1. 2
Other personnel casualty	09	0. 2	90	1.5	09	0.0	29	2. 2	00	5.0
Total.	1, 104		1, 192		1.360		1.318		1.312	

We have considered the boating accidents in this case along with the whole problem, and our recommendations include those which apply to the entire recreational boating field as well as those specifically to prevent a recurrence of this type of disaster in the same area.

On the date of the occurrence, more lives would have been lost except for the valiant efforts of the Coast Guard, are not familiar with the local radio stations, as part of a complete coordinated advisory system.

Storm warnings issued by the U.S. Weather Bureau for the Point Betsie area of Lake Michigan were in effect for 38 percent of the time during the three month period of June through August 1967. In late August 1967, the State of Michigan Department of Conservation warned boaters by press and radio media of the dangers of fishing in boats less than 16 or 18 feet in length on the exposed waters of Lakes Michigan and Superior. Experienced boatmen would routinely learn the weather forecast before proceeding to the fishing area and would have anticipated the sea conditions encountered in this case. Boaters from this lake area who testified indicated that they heeded the small craft warnings or actual weather conditions and did not expose themselves to the dangers to small craft.

The lack of experience on the Great Lakes and lack of knowledge of local conditions on the part of the boaters constituted a basic cause of these accidents. The testimony indicates that most of the fishermen were accustomed to operating on relatively protected inland lakes and streams and had little or no experience on the large lakes. When the weather became adverse, the visible signs of deterioration would have been obvious to the seasoned local boaters, but many of the operators demonstrated a lack of knowledge of local waters and practical seamanship. Some boaters remained too long in the relatively sheltered fishing ground of Platte Bay before heading back to their launching sites. Others tried to return to their launching sites and trailers in Frankfort and Manistee and encountered heavy seas in rounding Point Betsie. Many headed for the nearest beach, and attempted to land in surf estimated at 8 to 10 feet, and some capsized. If these boats had been beached in the relatively protected waters of Platte Bay, or had been kept outside the line of breakers until sea conditions moderated, fewer boats and lives would have been lost. The handling of the boats in the heavy surf demonstrated lack of experience on the part of the operators. Many cut off the power or raised their motors as they entered the breakers on the beach, and broached. While it is recognized that landing open outboards (most of which were less than 16 feet long) in heavy surf is difficult, most of these boats could have weathered the seas offshore. The sheriffs' marine patrol boats operated in the rough seas, and only one partially swamped. These boats ranged in size from 15 to 17 feet in length, but were operated by experienced boatmen.

The Coast Guard, the Michigan Conservation Department, and the several county sheriffs recognized that the salmon season would create a recreational boating safety problem. Meetings were held prior to the start of the season but did not resolve the problems encountered. Apparently the meetings did not succeed in producing an emergency plan which could cope with a situation of this size and character. The advent of coho salmon for the first time in this region had stimulated tremendous interest and enthusiasm in fishing. This interest was demonstrated on the weekends prior to the fatal one. More than 2,000 boats were estimated to be fishing on the weekend of September 9 to 10, whereas in prior years, only a few boats operated in this area after Labor Day. On previous occasions in 1967, various types of unsuitable craft were observed 6 to 8 miles offshore on Lake Michigan, and were obviously unseaworthy for these exposed waters. Examples are: inflatable rafts, canoes, kayaks, prams, 10- to 12-foot outboards powered with 100 horsepower engines, and amphicars (amphibious motor vehicles of low freeboard and stability). Fortunately no drownings occurred on these previous occasions, although capsizings did take place. It is probable that this good fortune influenced the actions of some of the fishermen on September 23, 1967. The fervor of the fishermen is reflected in the fact that many of the boaters, although warned of the weather and admonished to return to shore, refused to heed the advice.

The Safety Board notes the lack of legal authority of the Coast Guard to prohibit boat operators from proceeding into unsafe waters. Several of the witnesses stated that the Coast Guard should have this authority. The Safety Board feels that since the Coast Guard is not enabled by existing legal authority to stop boaters from proceeding into hazardous waters, specific legal authority should be obtained which would make it unlawful to do so. Also, it is the Board's opinion that the operation of boats of inadequate size and capability under sea conditions considered hazardous by knowledgeable enforcement officials, constitutes negligent operation. Therefore more aggressive enforcement of 46 U.S.C. 5261(a)--Reckless or negligent operation of vessels-could have a deterrent effect. The Board recognizes the right of the individual to fish; however, when his actions result in endangering the lives of passengers and rescue personnel, preventive actions are necessary.

The Safety board considers that one of the principal causes of loss of life was the failure of the victims to wear available lifesaving devices. It is noted that, in the face of breaking seas and heavy surfs, none of the boaters who got in difficulty near the beach was observed to use lifesaving devices. In some instances lifesaving devices were stored in an out-of-the-way part of the boat rather than immediately at hand as might be expected in the circumstances.

Buoyant vests and life preservers are bulky and uncomfortable to wear over heavy clothing, but it is illogical to conclude that boaters would not use them if the danger of capsizing was recognized. Also, while buoyant cushions are not as effective as buoyant vests or life preservers, particularly in heavy surf, their use might have saved a few lives. The Safety Board recognizes the ease of stowage, compactness, economy, and popular acceptance of buoyant cushions in comparison with life preservers and vests. However, these features still did not result in their use by those who drowned.

Another factor in the loss of life was the water temperature of about 49° F. Several of the fishermen who drowned might have survived had the water temperature been higher.

TALL ORAFT WARN INEF -WEATHER REPORT SIE LISTA

Two shots of the warning sign posted near a boat launching site on Point Betsie by the Officer-in-Charge of the light station there. Though the Coast Guard Light Station at Point Betsie was not a Weather Bureau storm warning display site, this sight was posted at about 7:30 a.m. on September 23, 1967. The Officer-in-Charge took this precaution after observing several boats being launched from the beach near the station. The sign set forth the details of the Small Craft Warnings, which he



had learned were to be in effect commencing at 8 a.m. As weather conditions worsened, seas in the Point Betsie area became particularly rough. Three of the seven drownings on September 23 occurred immediately off Point Betsie, while two others took place only 2 miles away. U.S. Weather Bureau records show that warnings were issued by that office for the Point Betsie area of Lake Michigan for 38 percent of the time in July, August, and September 1967.

The extent of loss of life and property in this case was difficult to assess. No practical means of determining the number of boats or fishermen operating in this area was available. Many boats were launched from access roads, and returned when the weather worsened. It was several days after the capsizings before Coast Guard and Michigan officials completed searching for possible missing persons, and concluded that seven persons drowned. The number of boats damaged in beaching and then removed by the operators could not be determined. Efforts on the part of the Federal and State officials to trace people and boats by the registration numbers of their cars and trailers were extensive. These search efforts burdened the already overloaded communications facilities available. Several Michigan officials suggested a system of registration cards which would check boats and their occupants out and in, at public launching sites. This would not provide coverage for the boats launched at unattended stretches of the beach, but would facilitate search and rescue efforts in similar circumstances. The Safety Board supports the efforts of State and municipal authorities in a voluntary system of registration at public and private boat launching sites and marinas, as well as at main access roads to the beaches.

Another factor which contributed to this series of capsizings was the unsuitability of the small outboard boats for operation in the breakers and surf on the shores of Lake Michigan in the existing sea conditions. Most of the boats were 16 feet in length or less, and of open construction. The freeboard of these boats, especially at the transom were cut down to house the outboard engines, was inadequate for seas that can normally be expected on the Great Lakes.

PROBABLE CAUSE

The Safety Board concludes that the probable cause of this series of capsizings was the combination of inexperienced boat operators not familiar with the area; sea and weather conditions beyond the capabilities of many of the boats and or operators; and a form of safety administration divided among several agencies lacking positive enforcement authority to prevent unsafe operation, and incapable of adequately handling the problem which arose. Contributing causes were the absence of a weather warning system capable of reliably reaching those who were unaware of the need to seek weather warnings, the disregard of weather warnings by some boaters who knew their significance, and the failure of boaters to use available lifesaving devices.

RECOMMENDATIONS

The Safety Board concurs with the Commandant relative to the recommendations of the Marine Board with the exception of recommendation 5 concerning deferral of legislative proposals which would authorize law enforcement personnel to "deter" small boat operators from operating when hazardous sea conditions exist, until all other means to effect voluntary compliance have been considered. As pointed out, the Safety Board considers that preventive action is necessary in this matter. Accordingly, the Safety Board recommends, in addition to the recommendations of the Coast Guard, that:

1. The Coast Guard seek legislation which would provide legal authority to stop operators from proceeding into adverse weather and sea conditions.

2. The Congress give favorable consideration to the proposed Recreational Boat Safety Act of 1968 (H.R. 15223) or a bill which would encompass similar provisions.

3. The Coast Guard, through its State boating liaison, encourage the use of a voluntary registration card system at public and private boat launching sites and marinas.

4. The Coast Guard consider approval of life preservers which are designed to fold in shapes suitable for use as cushions, and readily stowable on or under the scats.

The Safety Board also makes the following recommendations which generally expand the application of the Coast Guard's recommendations.

5. The Coast Guard and the States emphasize enforcement procedures against reckless operation of motorboats and cite the operators of unsuitable boats who proceed into adverse weather and sea conditions after being duly warned. The Coast Guard utilize 46 U.S.C. 526l(a) in appropriate boating areas; the States use comparable provisions of State law. 6. The Coast Guard Auxiliary, the Power Squadrons, and other boating organizations expand boating education programs, and States give consideration to the use of the State school systems. These programs should stress the importance of obtaining and heeding current local weather information on portable radios.

7. Based on the apparent success of the plans for preventing recurrence of such accidents in this area since the September 1967 incidents, the Coast Guard should use the experience and the information developed as a result of the meetings between Federal, State, and local officials in the State of Michigan to establish a coordinated emergency communication system and emergency operation plan in all appropriate recreational boating areas throughout the United States.

8. The Environmental Science Services Administration, in cooperation with the Coast Guard, the Coast Guard Auxiliary, State Boating Administration, U.S. Power Squadrons, and other boating safety groups use the information developed, as a result of the meetings in Michigan, for implementing a weather and sea advisory system in other appropriate recreational boating areas throughout the United States.

By the National Transportation Safety Board. Adopted this 24th day of October 1968.

(S)	Joseph J. O'Connei	LL, Jr.,
(S)	OSCAR M LAUREL	Chairman.
(0)	T T D	Member.
(S)	JOHN H. REED,	Member.
(S)	Louis M. Thayer,	Member
		11201110011

(S) FRANCIS H. MCADAMS,

Member.

NVIC 7-68

The "Notes on Inspection and Repair of Steel Hulls" is intended to disseminate to Coast Guard Marine Inspectors, Vessel Owners, and Shipyards general information relating to good practice in the inspection and repair of steel hulled vessels. This information is furnished for guidance purposes. Where specifics are given it should be understood that mandatory application is not necessarily intended. Nothing herein shall be taken as amending applicable regulations, or as prescribing or limiting the authority and responsibility of the Officer in Charge, Marine Inspection in the exercise of his good judgment.

These notes were first issued in 1960 to fulfill a need for guidance material on the inspection and repair of steel merchant vessels. Experience in their use since that time has suggested certain changes which have been included in this revision. It is believed that these notes cover the more important aspects of hull structural inspection and repair. However, constructive comments and suggestions are solicited and will be the basis for such future revision of these notes as may be necessary.

Navigation and Vessel Inspection Circulars Nos. 7-62 and 4-60 are hereby canceled.

Effective date-October 28, 1968.

Copies of this circular with enclosure (1) may be obtained at the local marine inspection office or by writing Commandant (CAS-2), U.S. Coast Guard, Washington, D.C. 20591.

nautical queries

DECK

LOADING ADJACENT TANKS

Q. In loading adjacent tanks with dissimilar products, would you top off your second tank at level A, level B, or level C, preferably? Why?



A. LEVEL B is preferable.

When dissimilar products are loaded in adjacent tanks, every effort should be made to prevent filling a tank on one side of a bulkhead to a greater height than the next tank. This method of loading tanks to similar outages reduces the tendency of one product to leak through faulty bulkheads or leaky valves and contaminate the adjacent compartment.

Tankerman's Handbook-Wooler

Q. When seamen are working upon a mast near radio transmitting antenna, what precaution should be taken?

A. When seamen are working upon a mast near radio transmitting antenna, the radio operator should be cautioned against transmitting unul the seamen are out of any possible danger of electrical shock.

It is good practice to hang a large warning sign which is readily visible on the transmitting equipment.

Q. Describe the responsibility of the master with respect to narcotic drugs placed on a vessel for medicinal purposes.

A. The master of a vessel is trustee with respect to the narcotic drugs aboard the vessel, and is charged with the overall responsibility of safeguarding the requisition, purchase, receipt, storage, issue, use and recordkeeping of narcotics. No one but the ship's surgeon or the master may sign a Purchase Order for Narcotic Drugs Supplied to Vessels, but other details concerned with the responsibility of safeguarding narcotics may be delegated, subject to the master's primary responsibility, to the senior medical employee aboard (physician, purser-pharmacist's mate, hospital corpsman, or registered nurse). If no medical personnel are included in the complement the master should retain full responsibility for the safeguarding of narcotics. -Ship's Medicine Chest and First Aid at Sea

ENGINE

Q. What are the characteristics of an isochronous governor? On what machinery is this type of governor usually installed?

A. An isochronous governor is one which will maintain a constant speed for all values of steady load within the capacity of the prime mover. Its sensitivity should be such that each time a change of load occurs, there will be a momentary variation of the speed from normal, but the speed should return immediately to the original number of revolutions per minute. It is used on constant speed machinery handling varying loads, such as a turbogenerator.

Q. To combat a small electrical fire, you would:

(a) Use a 2½ gal. soda acid extinguisher

(b) Use a 15 lb. CO2 extinguisher

(c) Use fixed CO2 equipment

(d) Use semi-portable foam (40 gal.) extinguisher

A. (b) Use a 15 lb. CO2 extinguisher

Q. Which of the following will reduce battery failure due to sulfation?

(a) Provide a one month idle period for each two months of operation

(b) Alternate fast charges with regular "trickle charges"

(c) Maintain a strong acid solution during idle periods

(d) Stop discharging when voltage falls to 1.75 per cell

(e) Provide a regular period of about ¹/₂ hour per week to "boil" the battery and remove impurities

A. (d) Stop discharging when voltage falls to 1.75 per cell

AMENDMENTS TO REGULATIONS

Title 46 Change

SUBCHAPTER B-MERCHANT MARINE OFFICERS AND SEAMEN

- PART 10—LICENSING OF OF-FICERS AND MOTORBOAT OPERATORS AND REGISTRA-TION OF STAFF OFFICERS
- SUBPART T-SMALL PASSENGER VES-SELS (UNDER 100 GROSS TONS)

PART 187-LICENSING

Renewals or Raises of Grade of Licenses

It has been determined that, if a person proves himself proficient in color vision, he normally does not lose his color sense except by physical damage to the eye. The amendments to 46 CFR 10.02-7(e), 10.02-9(f) (1) and (2), 10.20-7(a) (3), 10.20-9(a), and 187.15-20(a) in this document are for the purpose of allowing an alternate procedure in checking the color sense of applicants for renewals or raises of grade of licenses; i.e., to allow the color sense examination to be conducted by the Officer in Charge, Marine Inspection, or his designated representative in the Marine Inspection Office. If there is any question about an applicant's color vision, the applicant will be, as in the past, required to obtain an official certificate of a medical officer of the U.S. Public Health Service or have a color sense examination and certification made by a reputable physician. This change is to assist in expediting the processing of applications for renewals or raises of grade of licenses.

The provisions of 46 CFR 10.02-9(e) (2) require that an applicant for renewal of a license as master, mate, or pilot and who has not served under the authority of his license within 3 years next preceding the date of application for renewal, shall demonstrate his knowledge of the

MARINE ENGINEERING REGULATIONS

The Marine Engineering Regulations (CG-115) have been published in the Federal Register of December 18, 1968, Part II.

These regulations may be obtained from the local marine inspection office or by writing Commandant (CAS-2) U.S. Coast Guard, Washington, D.C. 20591.

Rules of the Road applicable to the waters for which he is licensed. A written examination may be required, or the applicant may be examined orally and a summary of the oral examination placed in his license file. The amendment to 46 CFR 10.02-9 (e) (2) in this document is intended to authorize the Officer in Charge, Marine Inspection, wider latitude and discretion with respect to imposing a waiting period following failure of a Rules of the Road examination, and in no case require the applicant to wait more than one month from the date of his last unsatisfactory examination before taking a reexamination.

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), with respect to renewals or raises of grade of licenses is unnecessary because the amendments in this document are changes in procedures or policy and are exempted from the requirements of section 553 of Title 5, U.S. Code, under the provisions set forth therein.

By virtue of the authority vested in me as Commandant, U.S. Coast Guard, by section 632 of Title 14, U.S. Code, and the laws cited with the following regulations, and the delegation of authority in 49 CFR 1.4(a)(2), the following amendments are prescribed and shall become effective on date of publication of this document in the Federal Register.

PART 11—LICENSES IN TEMPO-RARY GRADES OR SPECIAL ENDORSEMENTS ON LICENSES TO PERMIT TEMPORARY SERV-ICE

Endorsements to Licenses of Engineers of Steam Vessels Authorizing Service in Temporary Capacity on Motor Vessels

The Coast Guard has the administrative responsibility for establishing requirements and procedures for the licensing of persons who are deemed sufficiently qualified to serve as licensed officers on merchant vessels. The regulations in 46 CFR Part 10 set forth the qualifications for persons to serve as officers of merchant vessels under normal conditions, and procedures are provided for applicants to obtain various grades of licenses. The regulations in 46 CFR Part 11 were established and made effective on March 17, 1966, to provide alternate provisions with respect to the licensing of officers in temporary grades or to permit temporary service because of the necessity to adequately staff the vessels required to meet the increasing needs of commerce. At that time the Coast Guard found that definite shortages or potential shortages in the availability of licensed officers below the grades of Master and Chief Engineer exist. The Coast Guard nov finds that shortages continue to exist in many areas. Maritime labor organizations, owners and operators of merchant vessels, and concerned Federal Agencies have reported to the Coast Guard that a definite shortage of licensed engineers for motor vessels now exists. It is also noted that this shortage will become more acute in the immediate future. The current and future planning for replacement vessels and new construction provide for the greater util zation of mechanical propulsion rather than the traditional steam plants used in the past. Since a shortage now exists for the manning of motor vessels, there is a necessity to provide alternate means for otherwise qualified persons to obtain special endorsements on regular licenses as engineers of steam vessels authorizing temporary service in the same grades up to and including First Assistant Engineer on motor vessels.

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), to permit endorsements to licenses of engineers of steam vessels authorizing service in temporary capacity on motor vessels, is contrary to the public interest for the reasons set forth above, and therefore are exempted from the requirements of section 553 of Title 5, U.S. Code, under the provisions set forth therein.

By virtue of the authority vested in me as Commandant, U.S. Coast Guard, by section 632 of Title 14, U.S. Code, and the laws cited with the following regulations, and the delegation of authority in 49 CFR 1.4(a) (2), the following amendments and new regulations added to 46 CFR Part 11 are prescribed and shall become effective on date of publication of this document in the Federal Register.

The complete text of these changes has been published in the Federal Register of November 28, 1968.

Title 46 Change

APPROVAL OF CARGO GEAR PLANS BY INTERNATIONAL CAR-GO GEAR BUREAU, INC., NEW YORK, N.Y.

The certification of cargo gear required by 46 CFR 31.37-1 through 31.37-85 for tank vessels, 71.47-1 through 71.47-85 for passenger vessels, and 91.37-1 through 91.37-85 for cargo and miscellaneous vessels provide for a review of cargo gear plans, including stress and arrangement diagrams. Under the provisions of 46 CFR 31.37-20, 71.47-20, and 91.37-20 cargo gear plans approved by a classification society need not be submitted to the Officer in Charge, Marine Inspection, for approval.

By a letter of February 15, 1968, the International Cargo Gear Bureau, Inc., with home office at 17 Battery Place, New York, N.Y. 10004, requested the Coast Guard's review of their procedures and methods of approving cargo gear plans, and the acceptance of their approved cargo gear plans in the same manner that cargo gear plans approved by a classification society are accepted. The Coast Guard recognizes that incident to cargo gear certification the International Cargo Gear Bureau, Inc., is being called upon by owners or agents of merchant vessels to review cargo gear plans, including stress and arrangement diagrams, and this Bureau has the technical competence to handle such reviews. The rules designated 46 CFR 31.37-23, 71.47-23, and 91.37-23 are added and the headings for 46 CFR 31.37-15, 71.47-15, and 91.37-15 are amended in order to inform persons concerned that the Coast Guard accepts cargo gear plans approved by the International Cargo Gear Bureau, Inc. In the future such approved plans need not be submitted to the Officer in Charge, Marine Inspection, for approval under 46 CFR 31.37-15, 71.47-15, and 91.37-15.

Because the rules in this document are interpretations and descriptions of determinations made by the Commandant, U.S. Coast Guard, in the administration of the laws governing marine safety, 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) is unnecessary (5 U.S.C. 553). By virtue of the authority vested in me as Commandant, U.S. Coast Guard, by 14 U.S.C. 632 and other laws cited with the rules below and the delegation of authority in 49 CFR 1.4(a) (2), the following rules and regulations are amended or added and they shall be effective on the date of publication in the FEDERAL REG-ISTER.

The complete text of these amendments is published in the Federal Register of October 2, 1968.

NOTICES DEPARTMENT OF TRANSPORTATION

Coast Guard PHILLIPS PETROLEUM CO. Registration of House Flag and Funnel Mark

The Commandant, U.S. Coast Guard, in accordance with the provisions of 19 CFR 3.81 (§ 3.81, Customs Regulations), issued under the authority of the Act of May 28, 1908, as amended (46 U.S.C. 49), has registered the house flag and funnel mark of Phillips Petroleum Co., as described below:

(a) House flag. The house flag is rectangular in shape. Centered both vertically and horizontally on a white field is a blue field, on which is superimposed and centered horizontally, a shield with a black border, a white field inside, upper portion containing black letters: "Phillips", the lower portion containing a red field with white numerals "66".

The proportionate dimensions are: Hoist, 1.0; fly, 1.6; length of blue field, 1.5333; height of blue field, 0.9333; height of shield, 0.65; height of white background in shield for "Phillips," 0.2083; height of letters for "Phillips", numerals, 0.3583; height of "66" numerals, 0.2167; distance from bottom of flag to bottom of shield, 0.1833; and distance from top of flag to top of shield, 0.1666.

Funnel mark. The funnel mark is to appear on a black funnel. Around the funnel is a blue band, on which is centered both vertically and horizontally, a shield with a black border, a white field inside, upper portion containing black letters "Phillips", the lower portion containing a red field with white numerals "66".

The proportionate dimensions at the centerline of funnel are: Diameter of funnel, 1.0; height of funnel, 1.1111; width of blue band, 0.4722; distance from top of funnel to top of band, 0.2917; distance from bottom of funnel to hottom of band, 0.3472; height of shield, 0.3888; distance from top of shield to top of band, 0.0417; distance from bottom of shield to bottom of band, 0.0417; height of white background in shield for "Phillips", 0.1226; height of letters for "Phillips", 0.0567; height of red field for "66" numerals, 0.2129; and height of "66" numerals, 0.1261.

Colored drawings of the house flag and funnel marks described are on file with the Office of the Federal Register, National Archives and Records service.

(Federal Register of October 30, 1968.)

Approved Equipment

Commandant Issues Equipment Approvals

By Commandant Action of October 30, November 5, 13 and 14, 1968, Coast Guard approval was granted to certain items of lifesaving, and other miscellaneous equipment and materials.

Those interested in these approvals should consult the Federal Registers of November 7, 8, 16, 19, and 20, 1968, for detailed itemization and identification.

STORES AND SUPPLIES

Articles of ships' stores and supplies certificated from November 1 to November 30, 1968, 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: Dasic Chemicals, Ltd., Winchester Road, Romsey, SO5 8YD, Hampshire England: Certificate 835, dated November 4, 1968, DEEPTANKS S.W.; Certificate 836, dated November 4, 1968, KLEENFUEL A.S; Certificate 837, dated November 4, 1968, DASIKLEEN; Certificate 838, dated November 4, 1968, TANKLEEN.

Water Damage Protection Co., 15756 Wyoming Avenue, Detroit, Mich., 48238: Certificate 839, dated November 7, 1968, WDP FOR-MULA NO. 3; Certificate 841, dated November 15, 1968, WDP FOR-MULA NO. 2B.

CRC Chemicals, Division C. J. Webb, Inc., Dresher, Pa., 19025: Certificate 840, dated November 18, 1968, CRC LECTRA CLEAN.

AFFIDAVITS

The following affidavit was accepted during the period from October 15, to November 15, 1968:

Conval Inc., Field and Billings Roads, Somers, Connecticut 06071, VALVES.

FUSIBLE PLUGS

The regulations prescribed in Subpart 162.014, Subchapter Q, Specifications require that manufacturers submit samples from each heat of fusible plugs for test prior to plugs manufactured from the heat used on vessels subject to inspection by the Coast Guard. A list of approved heats which have been tested and found acceptable during the period from October 15 to November 15, 1968, is as follows:

Lunkenheimer Corp., Cincinnati, Ohio 45214, HEAT NOS. 738 and 744 through 752.

SAFETY

(Continued from page 8) this make us acutely conscious of the necessity of passing on the safety message at every opportunity.

Other examples of subjects considered during vessel officer meetings cover the entire range of safety problems too numerous to discuss in detail at this time. Of course, it goes without saying that our participation in promotion of safety is not limited solely to the spring meetings which have been the primary subject of my discussion today. We attorneys sometimes irritate seamen aboard ships by pointing out unsafe conditions which we might observe while aboard for other purposes, but it is only in this manner that we can fully perform the service for which we are engaged.

In our spring meeting discussions we are talking about navigation problems with the people directly involved. However, in the area of preventing personal injuries, more often than not it is necessary to rely upon the vessel officer to pass on the information to unlicensed seamen working under him. The problems of communication inherent in this situation are obvious. Moreover it has been shown by experience that vessei officers do not absorb more than a small part of the information presented at any one session. Perhaps this results from the fact that these are men of action who are unaccustomed to sitting and listening for extended periods of time.

It also seems to follow that interest in the subject matter is lost if there is too much repetition; that is, if the men are faced with the prospect of listening to an attorney each year ar the spring meeting. Consequently, we have concluded with our clients that the greatest benefit is derived by a particular fleet if attorneys appear only periodically rather than on an annual basis.

Nevertheless, it often happens that a particular situation which has been reviewed will develop again shorthy thereafter. Upon making investigation aboard the vessel, it is most discouraging to find that the accident occurred because of failure on the part of personnel to heed a particular precaution discussed only very recently. This condition is not limited to the maritime industry, but merely is evidence of the continuing need for constant vigilance and awareness the problems of striving for safer operation.

MERCHANT MARINE SAFETY PUBLICATIONS

The following publications of marine safety rules and regulations may be obtained from the nearest marine inspection office of the U.S. Coast Guard. Because changes to the rules and regulations are made from time to time, these publications, between revisions, must be kept current by the individual consulting the latest applicable Federal Register. (Official changes to all Federal rules and regulations are published in the Federal Register, printed daily except Sunday, Monday, and days following holidays.) The date of each Coast Guard publication in the table below is indicated in parentheses following its title. The dates of the Federal Registers affecting each publication are noted after the date of each edition.

The Federal Register may be purchased from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. Subscription rate is \$1.50 per month or \$15 per year, payable in advance. Individual copies may be purchased so long as they are available. The charge for individual copies of the Federal Register varies in proportion to the size of the issue but will be 15 cents unless otherwise noted in the table of changes below. Regulations for Dangerous Cargoes, 46 CFR 146 and 147 (Subchapter N), dated January 1, 1968 and Supplement dated July 1, 1968, are now available from the Superintendent of Documents, price: basic book \$2.50, Supplement: 20 cents.

CG No.

TITLE OF PUBLICATION

- 101 Specimen Examination for Merchant Marine Deck Officers (7-1-63).
- Rules and Regulations for Military Explosives and Hazardous Munitions (5-1-68). 108
- Marine Engineering Regulations and Material Specifications (3-1-66). F.R. 12-6-66, 12-20-67, 6-1-68. 115
- Rules and Regulations for Tank Vessels (5-2-66). F.R. 12-6-66, 12-9-67, 12-27-67, 1-26-68, 1-27-68, 2-10-68, 123 4-12-68, 6-1-68, 10-2-68.
- 129 Proceedings of the Merchant Marine Council (Monthly),
- Rules of the Road-International-Inland (9-1-65). F.R. 12-8-65, 12-22-65, 2-5-66, 3-15-66, 7-30-66. 169 8-2-66, 9-7-66, 10-22-66, 12-23-67, 6-4-68.
- Rules of the Road-Great Lakes (9-1-66). 172
- A Manual for the Safe Handling of Inflammable and Combustible Liquids (3-2-64). 174
- 175 Manual for Lifeboatmen, Able Seamen, and Qualified Members of Engine Department (3-1-65).
- 176 Load Line Regulations (1-3-66). F.R. 12-6-66, 1-6-67, 9-27-67, 7-12-68.
- Specimen Examinations for Merchant Marine Engineer Licenses (7-1-63). 182
- 184 Rules of the Road-Western Rivers (9-1-66). F.R. 9-7-66, 12-23-67.
- Equipment Lists (8-1-66). F.R. 9-8-66, 11-18-66, 2-9-67, 6-6-67, 6-14-67, 6-30-67, 8-29-67, 10-7-67, 190 4-16-68, 4-17-68, 11-7-68, 11-8-68, 11-16-68, 11-19-68, 11-20-68.
- Rules and Regulations for Licensing and Certificating of Merchant Marine Personnel (5-1-68). F.R. 11-28-68. 191
- 200 Marine Investigation Regulations and Suspension and Revocation Proceedings (5-1-67), F.R. 3-30-68.
- Specimen Examination Questions for Licenses as Master, Mate, and Pilot of Central Western Rivers Vessels (4-1-57). 220 227
- Laws Governing Marine Inspection (3-1-65). 239
- Security of Vessels and Waterfront Facilities (5-1-68). 249
- Merchant Marine Council Public Hearing Agenda (Annually). 256
- Rules and Regulations for Passenger Vessels (5-2-66). F.R. 12-6-66, 1-13-67, 4-25-67, 8-29-67, 12-20-67, 1-27-68, 4-12-68, 10-2-68.
- Rules and Regulations for Cargo and Miscellaneous Vessels (1-3-66). F.R. 4-16-66, 12-6-66, 1-13-67, 12-9-67, 257 1-26-68, 1-27-68, 2-10-68, 4-12-68, 6-1-68, 10-2-68.
- 258 Rules and Regulations for Uninspected Vessels (3-1-67). F.R. 12-27-67, 1-27-68, 4-12-68.
- 259 Electrical Engineering Regulations (3-1-67). F.R. 12-20-67, 12-27-67, 1-27-68, 4-12-68.
- 266 Rules and Regulations for Bulk Grain Cargoes (5-1-68).
- 268 Rules and Regulations for Manning of Vessels (5-1-67). F.R. 4-12-68.
- Rules and Regulations for Marine Engineering Installations Contracted for Prior to July 1, 1935 (11-19-52). F.R. 270 12-5-53, 12-28-55, 6-20-59, 3-17-60, 9-8-65.
- 203 Miscellaneous Electrical Equipment List (4-1-66).
- Rules and Regulations for Artificial Islands and Fixed Structures on the Outer Continental Sheif (10-1-59). F.R. 320 10-25-60, 11-3-61, 12-28-61, 4-10-62, 10-13-62, 8-31-62, 4-24-63, 10-27-64, 7-29-65, 8-9-66, 10-15-68.
- Rules and Regulations for Small Passenger Vessels (Under 100 Gross Tons) (1-3-66). F.R. 12-6-66, 1-13-67, 323 12-27-67, 1-27-68, 4-12-68, 11-28-68.
- 329 Fire Fighting Manual for Tank Vessels (4-1-58).

CHANGES PUBLISHED DURING NOVEMBER 1968

The following have been modified by Federal Registers:

CG-190, Federal Registers, November 7, 8, 16, 19, and 20, 1968. CG-191 and CG-323, Federal Register, November 28, 1968.

