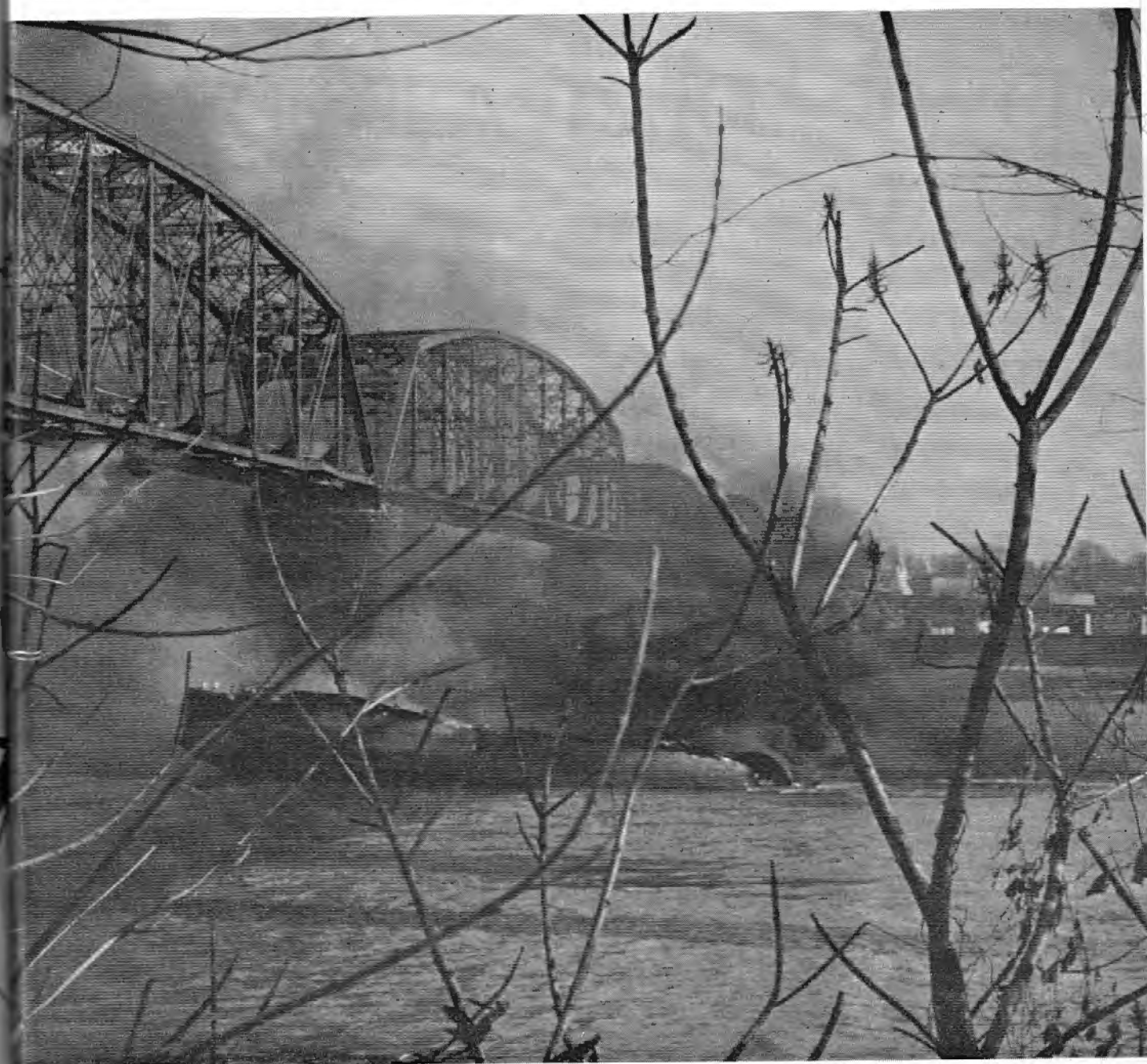


# ***PROCEEDINGS***

**OF THE MARINE SAFETY COUNCIL**



**DEPARTMENT OF TRANSPORTATION**

**UNITED STATES COAST GUARD**

Barge Blasts Kill Two . . .

NTSB Studies Survivor-Locator Systems . . .

# PROCEEDINGS

OF THE

MARINE SAFETY COUNCIL

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### COVERS

**FRONT COVER:** Smoke from the fiery remains of two tank barges that exploded after striking a bridge support at Parkersburg, W. Va., smudges an early January sky. Story on page 3.

**BACK COVER:** Built at Sun Shipyards for the Mobil Oil Corporation, the *Mobil Arctic* is the largest tanker ever constructed in this country. When placed in service, the 126,000 DWT tanker will carry crude oil in the world trade.

Admiral C. R. Bender, USCG  
Commandant

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# BARGE BLASTS KILL TWO

Paul Morehead had seen it happen many times before. From his vantage point at the operating controls of an elevated stationary crane located near the main channel of the Ohio River at Parkersburg, W. Va., he had a clear view of the Parkersburg Railroad Bridge; he had seen many tows battle the current as they tried to negotiate the narrow pass under the bridge. And he had seen some of them break apart as they were set upon the concrete piers supporting the bridge.

As Morehead watched the down-bound M/V *Martin* approach the bridge in early January 1972, the crane operator could see that the vessel and the two barges it was pushing (made up side by side) were too far toward the left side of the channel. He expected the vessel to back off for another try, but it continued to approach the span even though the current was setting the craft's stern further to port. The distance between the tow and the bridge pier narrowed. Morehead watched the port barge run over the buoy on the left side of the channel and then saw the same barge strike the pier.

Explosions ripped through the port barge immediately after it struck the concrete pier; Morehead was flung out of his seat by the violence of the concussion. As he scrambled to his feet and ran down the stairway leading from the crane another blast knocked him to the landing. He then raced to his office to alert the police



Damage to the bridge at Parkersburg was estimated at \$1 million. Replacement rather than repair of the span that suffered the effects of the explosion was deemed the most efficient method of returning the bridge to service.

and fire departments about the disaster which, he learned later, resulted in two deaths, two injured, and an estimated \$2 million worth of property damage.

Though Paul Morehead was one of the few eyewitnesses of the casualty that January afternoon, nearly everyone in the crossriver towns of Belpre, Ohio, and Parkersburg, W. Va., was in some way affected by the blasts that sank the two tank barges pushed by the *Martin*. Over 80 businesses

and dozens of residences reported broken windows and structural damage, while eight persons were treated in local hospitals for minor injuries and "anxiety reactions" stemming from the explosions.

The fateful leg of the voyage of the *Martin* began in Steubenville, Ohio, the night before the tow hit the bridge at Parkersburg. There the two tank barges MOS 101 and 103 were offloaded and stripped of their cargo of 46,894 gallons of gasoline.

The barges were neither ballasted nor gas freed at the terminal, and at about 0230 e.s.t. the tow departed for Baton Rouge, La. Though a portable electric blower was used to ventilate the empty cargo tanks en route, it is not known how many tanks had been ventilated prior to the casualty.

The *Martin* was coupled to the box type stern rakes of both barges and was centered while pushing the barges down the Ohio River. There were approximately twenty 55-gallon drums on the deck of the MOS 103 stowed on dunnage in the vicinity of the No. 3 cargo tanks. Twelve or thirteen of these drums contained stern tube

The *M/V Martin* is a 93.8 foot, 183 gross-ton towboat built in 1950. She was powered by a 1200 horsepower diesel engine. She was not Coast Guard inspected nor was she required to be.

At the time of the casualty, she was pushing the two similarly constructed steel tank barges, made up side by side. Each of the barges was 50.3 feet in breadth and approximately 290 feet long. Both barges had last been inspected and certificated by the Coast Guard on May 20, 1970 for flammable or combustible liquids of grade "B" and lower.

lubricating oil for use by the towing vessel; the remainder were either empty or contained slops from the barge cargo tanks.

The *Martin* and tow were manned by the following persons (whose titles

are given in river parlance): her captain, her pilot, her mate and tankerman, her chief engineer, her assistant engineer, her cook, and three deckhands. None of these were, nor were they required to be licensed by the Coast Guard, and only the mate held a Merchant Mariners Document, which was endorsed for tankerman Grade "B".

Ventilating operations on the barges, which had been secured during the night, began the morning of January 7 on MOS 101 as a deckhand placed the blower on the No. 4 port tank. As the tow approached the Parkersburg Railroad Bridge, the blower was moved to the No. 3 port



This close-up photo shows the burning MOS 103 as it came to rest in the main channel of the Ohio River at mile 184.5.



tank. The suction hose for the stripping pump was being held in the adjoining starboard tank by a deckhand; the mate held the discharge hose in a 55-gallon drum on the deck of the MOS 103.

The pilot of the *Martin* slowed to approximately 5 m.p.h. and lined up to pass between the piers marking the sides of the navigable channel. In testimony before a Coast Guard investigating officer, the pilot stated that he was lined up perfectly to make passage and that just after the head of the tow passed under the railroad bridge an explosion occurred on the barges. The mate and the deckhand on the barges were not seen alive after the explosion.

Below decks, the captain of the *Martin* was thrown from his bed by the force of the blasts. As he went outside he saw a fire burning forward and smelled smoke. Unable to reach the pilothouse without his artificial leg, the captain ordered the chief engineer to tell the pilot to back the vessel away from the fiercely burning barges. The vessel was finally landed on the Ohio shore above the bridge, where the pilot and the cook were taken to the hospital for treatment of shock and minor injuries.

Because the location of the now submerged barges was not precisely known, the captain of the port, Huntington, W. Va., ordered the river closed to traffic shortly after the casualty. Broken electrical cables dangling from the bridge also posed a hazard to navigation until they were removed. The U.S. Army Corps of Engineers determined during the following day that the adjacent channel under the bridge was clear, and traffic was allowed to pass through the bridge on January 8. On January 9 the Coast Guard Cutter *Oleander* marked the alternate channel and the wreck, and traffic through the area was restored to normal with caution advised.

Salvage operations and investigation of the sunken barges revealed that the initial explosion occurred in the No. 5 port cargo tank of the MOS

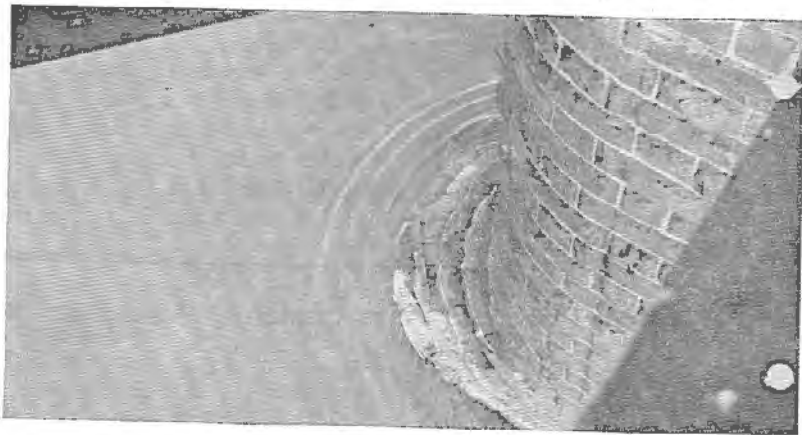
## When Is a Bridge An Unreasonable Obstruction?

Built in 1871, the Parkersburg Railroad Bridge has a horizontal clearance, between the piers in the main channel, of 326 feet. In 1904 the U.S. attorney for the northern district of Virginia filed a complaint against the Parkersburg Branch Railroad Co. and the B. & O. Railroad Co. charging the width of the spans was inadequate to accommodate the commerce of the Ohio River.

The motion for a permanent injunction, which would have forced the company to modify the bridge structure, was heard 1 year later in a district court. The judge refused to grant the injunction and an appeals court upheld the lower court's ruling.

Nine months after the decision of the circuit court of appeals, the Secretary of War indicted the company for failing to obey the River and Harbor Act of 1889 in that the span widths were too narrow for safe navigation. Again the circuit court of appeals decided for the defendants, citing that the structure was not subject to the act, which was passed 18 years after the bridge was built. Since that decision no further attempts have been made by the government to alter the bridge.

In addition to the narrowness of the channel between the bridge piers, the Coast Guard investigating officer also cited the construction of the supports as a possible hazard to navigation. Each of the piers has approximately 12 steps located on the upstream side of the supports, with the vertical distance between the steps measuring 24 inches.



Because many of these steps are under water most of the time, a vessel passing under the bridge has to contend with what amounts to an unseen projection from the pier. A projection of this nature poses the danger of holing a vessel below the waterline—a possibility which was mentioned by the investigating officer as one possible explanation of the explosion aboard the MOS 101.

A study of the Parkersburg Railroad Bridge is now underway in the Second Coast Guard District as a result of the casualty. If the facts of the case warrant further investigation, the Commandant may conduct a public hearing. With the information garnered from the public hearing and from other sources, a more exhaustive study of the condition of the bridge would be made, after which the bridge could be declared an unreasonable obstruction to navigation. An order to alter the structure would then be issued under authority of the Truman-Hobbs Act of 1940.

101 (which was the port barge in the tow) at about the point of impact with the bridge. Twelve out of the total of 20 cargo tanks had suffered explosions after the initial blast. Damage to the *Martin*, which consisted primarily of broken glass, was repaired and the vessel was returned to service.

It was not until a month later, on February 26, that the body of the deckhand was found in the No. 4 starboard tank of MOS 101. The body of the mate was recovered 50 miles down river on March 9, 1972.

The Coast Guard investigating officer concluded in his investigation of the casualty that the accident resulted from the improper alignment of the *Martin* and tow to safely pass under the bridge. Stripping and ventilating operations conducted on the barges contributed to the severity of the casualty, but the hazardous condition created by the use of ungrounded portable electric equipment (the blower and stripping pump) did not cause the explosion. Remedial action against the pilot was recommended and is pending. Recommendations by the investigating officer included one proposing a study of the Parkersburg Bridge to determine if it is an un-



This photo shows some of the damage incurred by the *Martin* in the casualty. The vessel was back in service following repairs.

reasonable obstruction to navigation. (See box.)

As the volume of hazardous materials carried on inland waterways increases every year, the potential for disasters which involve whole cities also increases. The cost to the cities of Parkersburg and Belpre was meas-

ured in dollars, not in lives, last January; but the need for strict compliance with safety standards is still obvious. Only continued adherence to safe cargo transporting practices can prevent another, or perhaps worse, disaster of the type which occurred on board the *Martin*. †

## Marine Section Wins Cameron Award for Second Consecutive Year

For the second year in a row, the Marine Section of the National Safety Council received the Cameron Award at the National Safety Congress and Exposition in Chicago. Capt. Richard N. LePage of Farrell Lines, Inc., general chairman of the Marine Section for the past year, accepted the award.

Organized in 1917, the Marine Section won over 27 other industrial sections including the aerospace, airline, trucking, railroad, utilities, construction, glass and ceramics, and metal industries. The Cameron Award is given to the National Safety Council industry section which makes

the largest contribution to promoting and advancing safety during a 12-month period within its own industry.

At the presentation ceremony, Captain LePage remarked:

In the past 2 years, the U.S. maritime industry has conducted what amounts to a national campaign to promote safety at sea, on the docks and in the shipyard. Safety indeed, has become the watchword of the American Merchant Marine and the cargo fleets of all nations engaged in domestic and international trade.

We in the maritime industry must daily face the new safety challenges as we put into effect new safety procedures, so essential to the operation and handling of cargo on technically advanced U.S. flag ships now in service or being built under the 1970 Merchant Marine Act.



# NTSB STUDIES SURVIVOR-LOCATOR SYSTEMS

The National Transportation Safety Board, concerned with the unnecessary loss of life which occurs in sudden sinking of vessels when no distress messages can be transmitted, has released a study entitled "Survivor-Locator Systems for Distressed Vessels." The purpose of the study was "to analyze casualties involving vessels which have been unable to transmit a distress call or message; to discuss the inadequacies of the current distress communications system; to determine whether certain vessels should be required to carry automatic emergency position-indicator radio beacons (EPIRB's); to consider other possible distress communications systems; and to make recommendations which will help prevent unnecessary loss of life when seamen must abandon ship on short notice."

The report discussed 10 casualties in which a total of 263 lives were lost, indicating that had the vessels been carrying EPIRB's, many lives might have been saved. The following are NTSB's case histories of the casualties.

## A. SS *Marine Sulphur Queen*

On February 2, 1963, the fully laden *Marine Sulphur Queen*, a T-2 type tankship which had been converted to carry molten sulphur, departed Beaumont, Tex., bound for Norfolk, Va. The last known radio contact, a routine personnel message from a member of the crew, was made at 0125 e.s.t. on February 4. At 1123 e.s.t. on February 4, RCA radio made an unsuccessful attempt to contact the vessel. At 2100 e.s.t. on February 7, the owners reported to the Coast Guard that the vessel was overdue.

A Coast Guard Marine Board of Investigation concluded that: (1) the vessel foundered in the vicinity of the Straits of Florida some time during February 4, 1963; (2) the suddenness of the casualty precluded transmission of a distress message; (3) the cause of the foundering could not be determined; and (4) life jackets found during subsequent searches indicated that at least some personnel had managed to don life jackets.

With respect to this study, the important aspects of the case are that the vessel apparently sank very rapidly without transmitting a distress message and more than 3 days

elapsed before an alert was sounded and a search effort was initiated.

The entire crew of 39 persons was lost. The vessel was traversing well established and frequently used shipping routes between the Gulf of Mexico and the east coast of the United States. If the vessel had been equipped with an EPIRB, prompt notification of the casualty might have saved some of the crew.

## B. SS *Daniel J. Morrell*

The Great Lakes ore carrier *Daniel J. Morrell*, in ballast, en route from Buffalo, N.Y., to Taconite, Minn., broke in two during the height of a storm and sank in Lake Huron at approximately 0200 e.s.t., November 29, 1966.

When the vessel broke in two, all power cables to the forward section were severed. Since the vessel neither had nor was required to have an emergency radio, it was without means of communications and no distress message was sent. The first report of alarm concerning the whereabouts of the vessel was made to the Coast Guard at 1215 e.s.t. on November 30, 1966. Thus more than 1½ days elapsed between the time of the casualty and the initiation of search efforts.

At the time of the casualty, there were at least two other vessels in the vicinity. Only one person survived this casualty, and the other 28 crewmembers perished.

## C. M/V *Johannes Kruss*

Major loss of life due to sudden foundering is not limited to the larger vessels previously discussed. The German fishing vessel M/V *Johannes Kruss* sank so quickly on February 28, 1967, that no radio distress message was broadcast. She foundered south of Greenland in an area where other fishing vessels were operating. Several days elapsed before it was known that the vessel was missing. All 22 of her crew were lost.

## D. M/V *Etnafjell*

The Norwegian fish-factory ship M/V *Etnafjell* caught fire and was abandoned by most of her crew on Novem-



ber 2, 1968, in latitude 55°20' N., longitude 33°25' W. This position is about 450 miles southeast of the southern tip of Greenland, and is close to heavy transatlantic air routes and some shipping lanes. On November 3, the burning vessel was sighted by a Polish vessel, which was unable to communicate either visually or by radio with the *Etnafjell*. The Coast Guard dispatched the Coast Guard Cutter *Absecon* to assist the stricken vessel. The cutter arrived on scene on November 4. The Norwegian vessel was no longer afire, but her lifeboats were missing on one side, and those on the other side were burned beyond usefulness. Three persons on board the vessel stated that 25 crewmembers had abandoned the burning vessel in two lifeboats, and another five were missing. The explosion and fire occurred so quickly that no distress message was transmitted. A massive search and rescue operation was initiated and was continued for 2 weeks. No trace of the crew or lifeboats was found. The bodies of four of the crew were discovered later in the afterquarters and engine room. An EPIRB capable of transmitting an alerting signal on 121.5 or 243 MHz would have been heard by some of an estimated 600 airplanes which transited the distress area during the 3-day period immediately following the sinking. As a result of this accident, Norway has taken positive action to require the carriage of EPIRB's on most Norwegian vessels.

#### E. SS *Chryssi*

The tankship *SS Chryssi* broke in two on December 26, 1970, about 250 miles southwest of Bermuda. This vessel, built in the United States, was owned by a Greek concern and was registered under the Panamanian flag. At the time of the casualty, the *Chryssi* was en route from El Palito to Boston. No radio distress message was transmitted. The U.S. *SS Geneva* sighted the bow section of the *Chryssi* 2 day after the fracture. The stern section had sunk. The Norwegian M/V *Ross Mount* later rescued 17 survivors from one of the lifeboats. The crewmembers reported that 21 other crewmen had abandoned the stricken vessel in other lifeboats. An extensive air-sea search failed to find these 21 persons or the lifeboats.

#### F. SS *Texaco-Oklahoma*

On March 27, 1971, the tankship *Texaco-Oklahoma*, en route from Port Arthur, Tex., to Boston, Mass., broke in two and eventually sank approximately 120 miles northeast of Cape Hatteras, N.C. Immediately after the vessel broke in two, at about 0330 hours e.s.t., the bow section rose bow-up and the midship house was partially submerged. No distress message was sent. Although 13 crewmembers were in the midship house and the bow section did not sink immediately, there were several possibilities concerning the failure to transmit a distress message: (1) the antenna was broken; (2) there was no primary source of power; and (3) emergency batteries may have been submerged.

A portable lifeboat radio designed to transmit on 500 kHz and 8364 kHz was available and was used by the 31 members of the crew who were on the stern section of the vessel. Although this radio was operated continuously for over 12 hours and although there were many vessels in the area, no auto alarms were activated and no vessel or shore station reported hearing any distress signal. The crewmembers on the stern section made other unsuccessful attempts to alert passing ships of the vessel's distress.

At 0530 on March 28, 1972, approximately 26 hours after the vessel broke in two, all 31 crewmembers stranded on the stern section abandoned ship. Within 30 minutes, the stern section sank. Approximately 11 hours later, 11 survivors in an inflatable liferaft were sighted and picked up by the passing tankship *Sasstown*. The *Sasstown* reported the rescue to the Coast Guard at 1642 on March 28, 1972. This was the first notification that the *Texaco-Oklahoma* had sunk. Two more survivors were rescued at approximately 1410 on March 29. Thirty-one out of 44 crewmembers perished.

#### G. M/V *Brandenburg*

The German cargo motor vessel *Brandenburg* sank in 3 minutes in the English Channel, southwest of the Varne light-vessel, on January 12, 1971. This ship sank so rapidly that her crew was unable to send a radio distress message. Fortunately, about 2 hours later, a passing vessel sighted survivors in the water. Eleven of the crew were rescued, although 20 perished. There were in the area of the disaster numerous vessels which could have saved many of those who perished.

This case demonstrated the need for an EPIRB capable of transmitting on 2182 kHz, an international distress frequency. Ships in the vicinity and the coastal radio stations at Foreland, England, and Boulogne, France, would have heard an alerting signal on this frequency, and could have plotted the position of the sinking vessel.

#### H. V.A. *Fogg*

This jumbolized T-2 tankship departed Freeport, Tex., at about 1230 c.s.t. on February 1, 1972. The vessel had discharged benzene and was scheduled to clean tanks en route to Houston, where she was to complete discharge and load other petroleum products destined for northeast U.S. ports. The normal practice was to proceed outside the 50-mile limit en route and to notify the operator's home office 5 hours prior to reaching the sea buoy off Galveston. The *Fogg* was expected to arrive at the buoy at about 0200 on February 2. No communications were received from the tankship.

At about 1610 on February 1, a NASA pilot reported sighting an expanding smoke cloud 40 miles off Galveston. Coast Guard aircraft investigated the area in the vicinity of the smoke, but found no vessels or oil platforms in distress. The operators notified the Coast Guard at 1345



on February 2 that the *Fogg* was overdue. The smoke report was not associated with the *Fogg* until that time. Search efforts were initiated, and the hulk of the sunken tank vessel was finally located on February 12 by the use of side-scan sonar.

The *Fogg* had 34 crewmembers and 5 tank cleaners on board, all of whom perished. Divers examined the wreck. Most of the tanks were ruptured by massive explosions, causing the vessel to sink within a few minutes. There is a possibility that a few of those on board might have survived if the vessel had been able to advise potential rescue vessels or search and rescue aircraft of her distress.

#### *I. M/V San Nicolas*

The 522-foot-long Liberian motor tank vessel *San Nicolas* departed Recife, Brazil, on February 21, 1972, with 16,000 tons of molasses bound for New Orleans. She had a crew of 30 on board. The Coast Guard was notified on March 6 by her agents that the *San Nicolas* was overdue. Efforts were made to locate the vessel on the assumption that she may have diverted to another port. No radio distress message from this tankship had been received. On March 10, an intensive search, which eventually covered 14,000 square miles, was begun.

Two engineroom crewmembers were rescued by the Swedish motor vessel *Simmsmetal* on March 11. They had drifted on an improvised liferaft since the *San Nicolas* broke in half and sank on March 5. These survivors stated that no distress message had been transmitted. Position of the casualty were approximately latitude 24°51' N. and longitude 86°17' W. The crewmembers stated that they did not know whether other shipmates had abandoned the sinking vessel. Search in this area located one body and various debris from the tankship. The survival of the two crewmembers is attributed to their fortitude and to the alertness of the crew of the *Simmsmetal* in detecting them.

#### *J. F/V Nanna*

This case is an example of the type of casualty which involves U.S. fishing vessels. The *Nanna* departed Seattle, Wash., on May 9, 1970, en route to the fishing grounds off Triangle Island in Queen Charlotte Sound off British Columbia. On May 10, she stopped en route at Alert Bay, British Columbia, to pick up bait. She expected to be on the fishing grounds the morning of May 11. On May 29, the vessel was reported 4 days overdue. An intensive search of the area and harbor checks of all local ports were fruitless. On June 17, another fishing vessel in the fishing grounds discovered fishing gear identified as belonging to the *Nanna*. However, neither the *Nanna* nor any of the five crewmembers has been found. A period of 18 days elapsed during which the status of the *Nanna* was unknown. The casualty could have occurred on any one of those days.

The NTSB summarized its conclusions and recommended as follows:

#### *A. Case Histories*

1. The number of marine casualties involving large losses of life which have occurred within the past 10 years indicates the need for an effective alerting and locating system.

2. A number of smaller seagoing vessels have experienced problems in communicating their distress, but data are not available concerning the numbers of these casualties or the lives lost unnecessarily.

3. The case histories cited involved casualties in which the distress situations developed so rapidly that no distress signal or message was transmitted successfully.

4. Existing requirements for radio equipment on U.S. seagoing vessels are not adequate to insure transmission of distress messages in case of sudden foundering or loss of power.

5. In most of the cases, there would have been a much greater probability that more crewmembers would have been saved if a prompt distress alert had been transmitted and received successfully.

#### *B. Regulatory Requirements*

1. Currently, there are no U.S. regulations or international treaties which require the carriage of automatic emergency position-indicating beacons on U.S. vessels.

2. All of the currently required electronic equipment which could be used to transmit a distress alerting signal must be actuated manually and none will continue to operate once the vessel sinks or there is no one available or physically able to operate it.

3. The currently required portable emergency radio apparatus for survival craft is bulky, hard to handle, difficult to operate by untrained personnel, and not suitable for use in a liferaft.

4. There is a need for a thorough evaluation of the effectiveness and reliability of both the portable emergency radio apparatus and the radiotelegraph auto alarm device and distress system.

5. The lack of a common aviation-maritime distress frequency greatly reduces the effectiveness of any maritime distress alerting system.

6. The action of Norway, Germany, France, and Japan in requiring their SOLAS vessels to carry EPIRB's is highly creditable.

#### *C. History of United States and IMCO Positions on EPIRB's*

1. The potential benefits of automatic radio beacons have been known for over 20 years.

2. The need for emergency position-indicating devices on board seagoing vessels has been recognized internationally since 1960.

3. A lack of agreement has existed in the United States on the operating frequency for EPIRB's. This lack of

agreement also has prevailed in IMCO and has stymied efforts to require the use of EPIRB's.

4. Recommendation 48 in the SOLAS Convention of 1960 was a compromise primarily because of the differences of opinion between nations as to which frequencies should be used.

5. No U.S. requirement for EPIRB's has been implemented since it was proposed prior to the 1960 SOLAS Convention.

6. The most effective use of EPIRB's requires participation by all maritime nations.

7. IMCO is the logical organization for establishing the necessary requirements for effective worldwide use of EPIRB's.

8. The choice of optimum frequencies depends upon the area of operations. In confined areas with a high ship density and the close proximity of shore stations such as the North Sea, 2182 kHz would be a logical choice. In the open seas such as the Atlantic and Pacific Oceans, the use of 121.5 MHz and 243 MHz would be more effective.

9. International requirements are in force for civil aircraft which operate over water to carry automatic radio beacons. These beacons have proven effective in assisting search-and-rescue units to locate distressed aircraft rapidly.

10. IMCO has been considering the matter of EPIRB's for over 10 years. This organization has not taken positive action to require vessels of its member nations to carry EPIRB's.

#### D. Possible Solutions

1. EPIRB's are technically and economically feasible today.

2. EPIRB's provide both an automatic distress alerting signal and a homing device to assist potential search-and-rescue efforts.

3. The use of the aeronautical emergency and survival-craft frequencies of 121.5 and 243 MHz will provide the most effective cover for transatlantic and transpacific voyages.

4. The GRAN system, when fully developed and operational, will provide an effective, worldwide alerting and locating system.

5. There is no need for the mariner to wait several years for the development of the GRAN system. An effective, low-cost alerting and locating system utilizing EPIRB's can be implemented today.

6. The DAL system will be effective for vessels operating within 20 miles of the coastline.

7. The DAL system is still a research and development project and will not be operational for several years.

8. The current maritime distress system requires modifications and changes in order to be more effective.

9. The improvements recommended in the provisional proposals for a future maritime distress system which the

Subcommittee on Radiocommunications presented to the Maritime Safety Committee of IMCO are reasonable and worthwhile.

10. A time schedule of 10 to 20 years for implementing the proposed improvements to the existing maritime distress system is excessive. The need for these improvements is too great to wait 10 or 20 years to achieve them.

The Safety Board recommends that:

1. The Coast Guard, in conjunction with the Federal Communications Commission, require all U.S. vessels subject to the provisions of the 1960 SOLAS Convention to carry emergency position-indicating radio beacons which will transmit automatically on 121.5 MHz, 243 MHz, and 2182 kHz. This requirement should become effective within 1 year.

2. The Coast Guard, in consultation with the State Department, take positive action through the Intergovernmental Maritime Consultative Organization to obtain passage of an amendment to the SOLAS Convention of 1960 which would require all member-nations' vessels which are subject to the provisions of the convention to carry emergency position-indicating radio beacons which will transmit automatically on 121.5 MHz, 243 MHz, and 2182 kHz.

3. The Coast Guard analyze the statistical data on the loss of the U.S. vessels which were operating more than 20 miles off shore and were not subject to the provisions of the 1960 SOLAS Convention to determine to what degree the carriage of emergency position-indicating radio beacons might have reduced the loss of life. Based upon this analysis, the Coast Guard should determine whether the carriage of these beacons should be made mandatory for these types of vessels.

4. Pending the results of this analysis, the Coast Guard encourage the owners of U.S. vessels which are not subject to the provisions of the 1960 SOLAS Convention, when operating more than 20 miles off shore, to provide emergency position-indicating radio beacons which will transmit automatically on either 2182 kHz or 121.5 MHz and 243 MHz.

5. The Federal Communications Commission, in conjunction with the Coast Guard, evaluate the effectiveness and reliability of existing radiotelegraph auto alarm and portable emergency radio apparatus to determine what changes or modifications are necessary to improve the performance of these devices.

6. The U.S. delegation to IMCO strongly support and actively work for rapid and effective action to revise and improve the current international distress system.

The Coast Guard is at present actively studying the recommendations contained in the NTSB study. Copies of the NTSB report are available from: Publications Section, National Transportation Safety Board, Washington, D.C. 20591. Requestors should reference Report Number NTSB-MSS-72-3.

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## ANNUAL STATISTICS OF CASUALTIES

Annually the U.S. Coast Guard releases to the public a statistical summary of casualties involving commercial vessels. This year the following brief explanation of the statistics is given in an attempt to make them more meaningful.

Casualties involving commercial vessels are required to be reported to the Coast Guard whenever the casualty results in the following:

- (a) Actual physical damage to property in excess of \$1,500.
- (b) Material damage affecting the seaworthiness or efficiency of a vessel.
- (c) Stranding or grounding.
- (d) Loss of Life.
- (e) Injury causing any persons to remain incapacitated for a period in excess of 72 hours; except injury to harbor workers not resulting in death and not resulting from vessel casualty or vessel equipment casualty.

The statistical summary represents casualties to commercial vessels which meet the above criteria. It is important to note that the summary represents casualties reported to Coast Guard Headquarters in fiscal year 1972.

This statistical tabulation is intended to summarize the casualty experience for the entire commercial fleet. Because this summary is so all-encompassing, the use of the statistics may lead to erroneous conclusions unless the limitations of the data are well understood.

Since the limitations are dependent upon the parameters of a problem, the below listed office will gladly assist in quantifying those limitations for each specific need.

To better serve the public's pursuit of safety, the Coast Guard would like to change the presentation of data to serve the widest possible spectrum of maritime interests. Persons who have used these data in safety programs, educational pursuits, business management, and those who could use this information if presented in a different form are requested to forward their recommendations for changes to U.S. Coast Guard (GMIS/83), 400 Seventh Street SW., Washington, DC 20590.

The suggestions solicited last year in a similar request have been partially incorporated in the data base but are yet not reflected in the following tables.

### STATISTICAL SUMMARY OF CASUALTIES TO COMMERCIAL VESSELS<sup>1</sup>

	Nature of casualty																		
	Collisions; crossing, meeting and overtaking	Collisions, while anchored, docking, or undocking	Collision, fog	Collisions with piers and bridges	Collisions, all others	Explosion and/or fires— cargo	Explosion and/or fires— vessel's fuel	Explosion and/or fire— boilers, Pressure vessel	Explosion and/or fire— structure, equipment, all others	Grounding with damage	Grounding without damage	Foundering, Capsizings and floodings	Heavy weather damage	Cargo damage	Material failure— structure and equipment	Material failure— machinery and engineering equipment	Casualty not otherwise classified	Totals	
1 July 1971 to 30 June 1972																			
Fiscal year 1972																			
Number of casualties	188	159	58	426	254	12	25	2	131	304	236	85	3	31	341	145	24	2,424	
Number of vessels involved	618	459	168	787	395	12	27	2	136	442	304	123	4	42	409	148	41	4,117	
Number of inspected vessels involved	164	131	60	285	159	10	3	2	39	155	162	13	1	28	181	103	11	1,507	
Number of uninspected vessels involved	454	328	108	502	236	2	24		97	287	142	110	2	14	228	45	30	2,610	
PRIMARY CAUSE																			
Personnel fault:																			
Pilots—State	5	7	12	12	1					5	19						1	62	
Pilots—Federal	25	27	9	73	18					26	40				2		1	224	
Licensed officer—documented seaman	37	20	17	78	15	3			7	48	37	5		5	11		1	284	
Unlicensed—undocumented persons	145	39	32	141	40	1	3		9	106	36	24		3	14		4	597	
All others	36	44	11	32	19	4			18	14	14	4		2	10		6	139	
Error in judgement calculated risk					1					3								4	
Restricted maneuvering room				1						1								3	
Storms—adverse weather	1	13	5	35	39	1				33	19	11	4	19	74	2		250	
Unusual currents	1	1		11	1					2	2							14	
Shear, suction, bank cushion	2			1						13	37							7	
Depth of water less than expected					2													52	
Failure of equipment	10	21	3	31	20	2	15	2	55	33	19	10		2	118	140	3	483	
Unseaworthy—lack of maintenance	1			1					1	5		14			36			58	
Floating debris—submerged object		1		4	110					5					2		1	123	
Inadequate tug assistance	1	1		1						3								6	
Fault on part of other vessel or person	350	285	79	359	125		2		5	143	74	39		11	134	6	10	1,619	
Unknown—insufficient information	3			7	4	1	7		41	3	4	18			7		14	109	

See footnote at end of table.

# STATISTICAL SUMMARY OF CASUALTIES TO COMMERCIAL VESSELS<sup>1</sup>—Continued

1 July 1971 to 30 June 1972 Fiscal year 1972		Nature of casualty																		Totals
		Collisions, crossing, meeting and overtaking	Collisions, while anchored, docking, or undocking	Collision, fog	Collisions with piers and bridges	Collisions, all others	Explosion and/or fire— cargo	Explosion and/or fire— vessel's fuel	Explosion and/or fire— boilers, pressure vessel	Explosion and/or fire— structure, equipment, all others	Grounding with damage	Grounding without damage	Foundering, Capsizings and floodings	Heavy weather damage	Cargo damage	Material failure— structure and equipment	Material failure— machinery and engineering equipment	Casualty not otherwise classified		
TYPE OF VESSEL																				
Inspected vessels:																				
Passenger and ferry—large	4	3		6	3		1		1	5	2	2			5	3		34		
Passenger and ferry—small	3	8	3	4	12				8						13	5		81		
Freight	19	30	11	101	49	4		2	13	27	65	1		19	103	55	8	507		
Cargo barge	7	15	10	24	12		1		1	14	4	3		8	14		1	114		
Tank ships	11	23	6	13	32	2			6	13	50		1		18	30	1	206		
Tank barge	112	46	25	128	45	4	1		8	71	32	6			18	2	1	497		
Public	2	2	1		2					2		1			6	3		19		
Miscellaneous	6	4	4	9	4				2	6	2			1	6	5		49		
Uninspected vessels:																				
Fishing	68	40	9	12	43		15		45	101	22	32			79	27	6	499		
Tugs	208	91	42	280	117		5		27	119	65	42	1	9	63	5	6	1,080		
Foreign	35	71	24	29	18	2			6	15	40	2		1	5	1		249		
Cargo	103	83	18	160	32				4	37	11	24		3	50		14	539		
Miscellaneous	40	43	15	21	26		4		15	15	4	10	2	1	31	12	4	243		
GROSS TONNAGE																				
300 tons or less	283	171	67	260	197		23		87	232	98	83	1	12	188	44	16	1,762		
Over 300 to 1,000 tons	163	126	44	255	57	2	3		12	89	27	29		2	63	8	10	895		
Over 1,000 to 10,000 tons	140	79	37	214	95	6	1	1	27	97	87	8	2	17	77	44	5	937		
Over 10,000 tons	32	83	20	58	46	4		1	10	25	92	3	1	11	61	52	4	523		
LENGTH																				
Less than 100 feet	252	140	50	207	164		24		80	206	84	70	1	6	156	41	16	1,497		
100 to less than 300 feet	303	193	81	424	139	5	3		31	179	66	48	1	14	118	17	16	1,638		
300 to less than 500 feet	25	22	16	62	27	2		1	14	21	40	2	1	8	36	26	5	318		
500 feet and over	38	94	21	94	65	2		1	11	36	114	3	1	14	99	64	4	664		
AGE																				
Less than 10 years	312	182	92	322	146	7	9	1	38	157	105	41	2	14	136	53	15	1,632		
10 to less than 20 years	176	152	49	223	98	2	5		41	120	80	43		10	101	21	9	1,130		
20 to less than 30 years	73	80	17	141	77	2	7	1	35	94	66	23	2	15	103	53	11	800		
30 years and over	57	45	10	101	74	1	6		22	71	53	16		3	69	21	6	555		
LOCATION OF CASUALTY																				
Inland—Atlantic	21	36	8	69	42	2	5		16	70	87	18		2	38	18	6	438		
Inland—Gulf	83	51	25	137	54	4	3	1	31	66	63	22	1	1	38	7	3	590		
Inland—Pacific	11	26	5	23	47	3	7	1	24	64	22	14	1	3	49	22	2	324		
Ocean—Atlantic	6	2	6	1	7		1		11	8	4	5	1	6	45	21	1	125		
Ocean—Gulf	14	3	1	7	24	1	1		8	14	10	4			35	7	2	131		
Ocean—Pacific	9	3	2	2	9	1	4		22	16	1	12		17	72	44	1	215		
Great Lakes	9	4	1	71	29				4	17	25	1			24	11		196		
Western Rivers	28	17	6	93	23		3		11	31	6	8		1	21		3	251		
Ocean—other		3		1	2		1		1	9	2	1				8	1	29		
Foreign waters	7	14	4	22	17	1			3	9	16			1	19	7	5	125		
TIME OF DAY																				
Daylight	77	93	32	207	151	10	14	1	88	132	107	54	2	17	238	94	13	1,330		
Nighttime	104	56	24	192	87	1	11	1	38	148	113	29	1	12	89	40	10	956		
Twilight	7	10	2	27	16	1			5	24	16	2		2	14	11	1	138		
ESTIMATED LOSSES																				
Vessel	5,280	3,363	1,744	4,088	3,757	489	3,854	47	21,316	19,587	76	6,330	122	71	8,527	3,109	735	82,475		
Cargo	4,282	29	26	323	270	481	3		792	3,096		557		1,085	1,806	10	107	12,866		
Property	18	1,388		8,202	625	50	7		84	157	2	170	178	2	54	8	160	11,105		
VESSELS TOTALLY LOST																				
Inspected	1		1	2		3	1		2	9		1			2			22		
Uninspected	19	8	4	10	31		14		46	56		24	1		64	5	5	287		

<sup>1</sup> Statistics concerning recreation and pleasure boating accidents are published in CG-357.



# STATISTICAL SUMMARY OF DEATH/INJURIES DUE TO A VESSEL CASUALTY

	Nature of casualty																	Total
	Collision; crossing meeting and overtaking	Collision, white anchored, docking or undocking	Collision, fog	Collisions with piers and bridges	Collisions, all others	Explosion and/or fire—cargo	Explosion and/or fire—vessel's fuel	Explosion and/or fire—boilers, pressure vessel	Explosion and/or fire—structure, equipment, all others	Grounding with damage	Grounding without damage	Foundering, capsizeings and floodings	Heavy weather damage	Cargo damage	Material failure—structure and equipment	Material failure—machinery and engineering equipment	Casualty not otherwise classified	Total
1 July 1971 to 30 June 1972 Fiscal year 1972																		
Number of casualties.....	13	4	4	6	4	4	6		21	8		16		1	29	4	5	125
Number of inspected vessels involved.....	1			3		51			28	2				1	6	1	3	98
Number of uninspected vessels involved.....	27	6	4	7	13		4		36	11		25			51	5	2	191
Number of persons deceased/injured.....	15/13	1/5	3/1	3/7	10/3	44/7	/4		23/41	11/2		21/4		1/	43/14	/6	2/3	177/110
PRIMARY CAUSE																		
Personnel fault:																		
Pilots—State.....																		
Pilots—Federal.....																		
Licensed officer—documented seaman.....	1					2			1	1				1				6
Unlicensed—undocumented persons.....	9	2	1	3	2	1			5	3		5			3		1	35
All others.....	1		1						6						2			10
Error in judgment—calculated risk.....																		
Restricted maneuvering room.....																		
Storms—adverse weather.....										2		1						5
Unusual currents.....				1											2			
Sheer, suction, bank cushion.....																		
Depth of water less than expected.....																		
Failure of equipment.....	1					1	3		4	1		1			11	4		26
Unseaworthy—lack of maintenance.....				1								3			6			10
Floating debris—submerged object.....					2													2
Inadequate tug assistance.....																		
Fault on part of other vessel or person.....	1	2	2	1								1			4			11
Unknown—insufficient information.....							3		5	1		5			1		4	19
TYPE OF VESSEL INVOLVED																		
Inspected vessels:																		
Passenger and ferry—large.....																		
Passenger and ferry—small.....	/1			/1						/1					/3	/1	/3	/3
Freight.....																		1/12
Cargo barge.....									/4	/1								
Tankships.....						41/8			/4									
Tank barges.....				2/		3/1			1/4						/2			41/12
Public.....															/1			6/6
Miscellaneous.....									8/7									8/7
Uninspected vessels:																		
Fishing.....	2/3	1/1			8/2		/3		2/2	11/		19/1			21/2		2/	66/14
Tugs.....		/4	1/	1/2	1/				1/2			1/1			10/2			15/11
Foreign.....	2/		2/						/2						4/2	/1		8/5
Miscellaneous.....	11/9		/1	/4	1/1		/1		11/16			1/2			8/2	/4		32/40
PARTICULARS OF PERSON DECEASED/INJURED																		
Papers of deceased/injured:																		
Licensed by Coast Guard.....				1/		13/2			2/2	/1					1/2			17/7
Documented by Coast Guard.....						23/4			/8			1/			1/3			26/17
No license or document.....	13/13	1/5	1/1	2/7	10/3	8/1	/4		21/29	11/1		1/		1/	40/8	/1	/1	129/82
Other—unknown—foreign.....	2/		2/						/2			20/4			1/1	/4	2/2	5/4
Status or capacity on vessel:																		
Passenger.....	9/7			/2	/1					/1		1/2			2/			12/13
Longshoreman—harbor worker.....						3/1			5/4			1/2			4/2		/2	12/9
Crewmember.....	6/6	1/5	3/1	3/5	10/2	35/6	/4		5/14	11/1		19/2		1/	35/10	/6	2/1	131/63
Other.....						6/			13/23			1/			2/2			22/26
Activity engaged in:																		
Off duty.....						1/			3/2						/2		/1	9/8
Deck department duties.....	5/6	/3	3/1	3/4	5/2	15/4	/1		/4	3/		2/			11/5		2/	64/28
Engine department duties.....					1/	13/			1/4	6/		4/2			/1	/6	/1	15/13
Stewards department duties.....		/1		/1		7/1			/1	/1								9/4
Handling cargo.....						3/1			3/			2/			4/2			11/3
Fishing.....	2/1	/1					/3								10/		/1	26/7
Drills.....						/1				2/		9/			/2			/3
Passenger.....	8/7			/2						/1		1/2			1/			10/12
Other and unknown.....		1/			1/	5/			16/30			3/			17/3			43/32
Location of vessel:																		
At dock.....				/1														5/8
At anchor.....	10/4	/3		3/1	2/	2/5			3/1						/1			19/8
Underway.....	5/9	1/2	3/1	/5	8/3	42/2	/4		20/40	11/2		4/		1/	43/13	/6	2/3	153/94
Part of body:																		
Head.....	/1			/1	1/	2/6									6/3	/1	/1	9/13
Back.....	/3	/3		/1					/13			/2			/6			/27
Chest.....	/5																	/7
Extremities.....	/2	1/1		/1	/1													10/22
Illness.....							/3		9/11	/1					/3			2/
Drowning.....	15/		3/	3/4	9/2				5/	10/		21/		1/	1/		2/	103/
Unspecified and miscellaneous.....	/2	/1	3/1	/4	/2	42/1	/1		9/16	/1		/2			2/3	/5	/2	53/41

# STATISTICAL SUMMARY OF DEATHS ON BOARD COMMERCIAL VESSELS<sup>1</sup>

## (Not Involving a Vessel Casualty)

1 July 1972 to 30 June 1972

Fiscal year 1972

		Nature of death																								
1 July 1972 to 30 June 1972 Fiscal year 1972		Natural cause	Homicide	Suicide	Disappearance	Slips and falls—ladders	Slips and falls—gangways	Slips and falls—on deck	Slips and falls—other	Falls from vessel—into water	Falls into holds or tanks	Struck by objects; falling, dropped, or moving	Exposure and asphyxiation	Struck against, crushed, bumped into objects	Operating machinery and tools	Burns and scalds (other than electrical)	Electrical shock and burns	Caught in lines, chains, or wire ropes	Pinching and crushing	Heavy weather	Overexertion, sprains and strains	Cuts, lacerations, bruises, and punctures	Alterations and misconduct	Unknown or insufficient information		
CAUSE OF DEATH		Total: 348	147	7	19	—	8	2	—	9	100	5	21	8	3	—	1	2	7	1	—	—	—	—	3	
19	Intoxication	1	—	—	—	1	—	—	—	14	—	—	—	—	—	—	—	1	—	—	—	—	—	—	2	
149	Physical deficiency or handicap	145	—	—	—	—	—	—	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
2	Unsafe movement or posture	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
20	Psychological—immaturity, insanity	1	2	18	—	—	—	—	—	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
42	Unsafe practice	—	—	—	—	2	—	—	7	17	2	8	5	1	—	—	—	—	3	—	—	—	—	—	3	
6	Violation of law or regulation	—	5	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
61	Human errors	—	—	—	—	3	1	—	—	42	2	5	1	2	—	—	1	1	2	—	—	—	—	—	1	
4	Decks—slippery or cluttered	—	—	—	—	—	—	—	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
7	Weather conditions	—	—	—	—	1	—	—	—	5	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	
—	Poor maintenance or housekeeping	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
2	Inadequate lighting	—	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
2	Inadequate rails or guards	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
11	Failure of equipment	—	—	—	—	—	—	—	1	1	—	8	—	—	—	—	—	—	1	—	—	—	—	—	—	
6	Inadequate supervision	—	—	—	—	1	1	—	—	2	—	—	1	—	—	—	—	—	1	—	—	—	—	—	—	
1	Inadequate life preservers	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	Inadequate tools or equipment	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	Inadequate protective equipment	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
2	Improper use of tools or equipment	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	
4	Miscellaneous causes	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	2	
TYPES OF VESSELS INVOLVED																										
Inspected vessels:																										
16	Passenger and ferry—large	9	1	4	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
22	Passenger and ferry—small	20	—	1	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
96	Freight ships and barges	47	2	6	—	5	—	—	6	12	3	6	2	1	—	—	—	—	2	—	—	—	—	—	4	
40	Tankships and barges	22	—	2	—	—	1	—	1	7	1	1	3	—	—	—	—	1	—	—	—	—	—	—	1	
6	Public	3	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
1	Miscellaneous	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Uninspected vessels:																										
64	Fishing	17	3	3	—	1	—	—	—	32	—	1	2	1	—	—	—	2	—	—	—	—	—	—	2	
40	Tugs	18	—	1	—	—	—	—	—	17	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—	
29	Foreign	4	1	2	—	2	1	—	2	8	1	4	1	—	—	—	1	—	2	—	—	—	—	—	—	
34	Miscellaneous	6	—	—	—	—	—	—	—	20	—	6	—	1	—	—	—	2	—	—	—	—	—	—	—	
TIME OF DAY																										
205	Daytime	98	1	4	—	5	—	—	8	55	2	17	4	2	—	—	—	1	6	1	—	—	—	—	3	
128	Nighttime	46	6	13	—	3	2	—	—	41	3	4	4	1	—	—	1	1	1	—	—	—	—	—	2	
15	Twilight	5	—	2	—	—	—	—	1	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	
PARTICULARS OF DECEASED																										
Papers of deceased:																										
42	Licensed by Coast Guard	32	—	4	—	1	1	—	1	2	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
100	Documented by Coast Guard	55	2	5	—	4	—	—	6	18	—	4	1	—	—	—	—	—	—	—	—	—	—	—	5	
186	No license or document	57	4	8	—	3	1	—	1	74	3	14	7	3	—	—	1	2	5	1	—	—	—	—	3	
20	Other—unknown—foreign	3	1	2	—	—	—	—	2	6	1	3	—	—	—	—	—	—	—	—	—	—	—	—	—	
Status or capacity on vessel:																										
42	Passenger	28	1	3	—	—	—	—	—	9	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	
27	Longshoreman—harbor worker	1	—	1	—	1	1	—	1	3	3	8	3	1	—	—	1	—	3	—	—	—	—	—	—	
253	Crewmember	115	4	15	—	6	1	—	8	81	1	11	4	1	—	—	—	2	2	1	—	—	—	—	6	
21	Other	3	2	—	—	1	—	—	—	7	—	2	1	—	—	—	—	—	—	—	—	—	—	—	2	
Activity engaged in:																										
107	Off duty	65	3	13	—	2	—	—	3	16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	
84	Deck department duties	20	—	1	—	2	—	—	5	37	1	13	1	—	—	—	—	1	1	1	—	—	—	—	1	
17	Engine department duties	13	—	—	—	1	—	—	—	2	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	
7	Stewards department duties	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
16	Handling cargo	—	—	—	—	—	—	—	—	1	3	6	2	1	—	—	—	—	3	—	—	—	—	—	—	
46	Fishing	20	1	—	—	1	—	—	—	20	—	—	2	1	—	—	—	1	—	—	—	—	—	—	—	
—	Drills	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
28	Passenger	16	1	3	—	—	—	—	—	7	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	
43	Other and unknown	6	2	2	—	2	2	—	1	17	1	2	2	—	—	—	1	—	3	—	—	—	—	—	2	
Location of vessel:																										
18	At dock	3	1	—	—	1	—	—	1	10	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	
16	At anchor	9	—	—	—	—	—	—	—	6	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	
314	Underway	135	6	19	—	7	2	—	8	84	5	18	8	3	—	—	1	2	7	1	—	—	—	—	8	
Part of body:																										
31	Head	—	3	1	—	2	1	—	5	2	3	11	—	—	—	—	—	—	2	—	—	—	—	—	1	
12	Back	—	—	3	—	3	—	—	—	—	1	3	—	—	—	—	—	1	—	—	—	—	—	—	—	
14	Chest	—	3	1	—	—	—	—	—	2	—	1	—	2	—	—	—	—	4	—	—	—	—	—	—	
4	Extremities	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
141	Illness	139	—	1	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
116	Drowning	1	1	11	—	2	1	—	1	93	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—	
31	Unspecified and miscellaneous	6	—	2	—	1	—	—	—	2	1	1	8	1	—	—	1	—	1	—	—	—	—	—	6	

<sup>1</sup> Statistics concerning recreation and pleasure boating accidents are published in CG-357.

# STATISTICAL SUMMARY OF PERSONNEL INJURIES ON BOARD COMMERCIAL VESSELS<sup>1</sup>

## (Not Involving a Vessel Casualty)

CAUSE OF INJURY	Nature of injury															
	Slips and falls—ladders	Slips and falls—gangways	Slips and falls—on deck	Slips and falls—other	Falls from vessel—into water	Falls into holds or tanks	Struck by objects, falling, dropped or moving	Exposure and asphyxiation	Struck against, crushed, bumped into objects	Operating machinery and tools	Burns and scalds (other than electrical)	Electrical shock and burns	Caught in lines, chains, or wire ropes	Pinching and crushing	Heavy weather	Overexertion, sprains, and strains
Totals: 1,243	145	23	180	128	12	12	224	4	71	41	56	2	41	65	11	100
48 Intoxication	16	4	8	7					1							38
26 Physical deficiency or handicap	5		5	4						3						1
36 Unsafe movement or posture	1		5	6	1											1
41 Psychological—immaturity, insanity			1	1												38
200 Unsafe practice	25	3	7	19	3	3	48	2	8	13	20		6	12	1	22
5 Violation of law or regulation							1									
648 Human errors	86	11	110	68	6	6	100	2	43	20	24	1	34	45	3	51
41 Decks—slippery or cluttered	4	1	25	6			1									19
69 Weather conditions	3	2	14	9	1		12		10	1	2	1				2
9 Poor maintenance or housekeeping	1		2				3									1
3 Inadequate lighting							1									1
4 Inadequate rails or guards		1	1	1		1										1
57 Failure of equipment	2		1	3			40		3		6					1
12 Inadequate supervision	2		1				7		1		2					1
Inadequate life preservers																
4 Inadequate tools or equipment			1				1									2
11 Inadequate protective equipment				2			2			1						4
18 Improper use of tools or equipment	1			1	1		6		3	3	1			1		1
11 Miscellaneous causes		1		1			2		1		1					1
TYPES OF VESSELS INVOLVED																
Inspected vessels:																
55 Passenger and ferry—large	8	1	11	9			6		3	1	1		2	3	1	2
23 Passenger and ferry—small	3		4	5		1	2		1							4
824 Freight ships and barges	109	19	123	75	5	5	139	3	43	21	37	2	14	49	9	90
144 Tankships and barges	16	2	23	17	1	2	26	1	13	6	10		1	4		8
4 Public	1		1	1												3
39 Miscellaneous	4	1	2	4		1	7		8	4			1	1		5
Uninspected vessels:																
62 Fishing			4	7	1	1	20		3	3	2		14	3		1
69 Tugs	3		10	9	4	1	10		2	5	2		7	2	1	4
5 Foreign				1		1	1		1		1					2
18 Miscellaneous	1		2	1		1	7		1	1	2		1	2		1
TIME OF DAY																
859 Daytime	95	9	109	92	6	8	171	4	52	31	41	2	30	30	9	86
324 Nighttime	44	14	61	28	5	3	44		16	8	13		10	20	2	31
60 Twilight	6		10	8		1	9		3	2			1			7
PARTICULARS OF PERSON INJURED																
Papers of person injured:																
131 Licensed by Coast Guard	20	5	13	16	2	2	17		2	11	13		6	1	1	15
931 Documented by Coast Guard	118	18	146	89	6	4	108	1	55	20	37	2	21	61	9	89
175 No license or document	7		21	22	4	6	38	3	13	9	5		20	8	1	5
6 Other—unknown—foreign				1			1		1	1	1					5
Status or capacity on vessel:																
24 Passenger	2		7	5		1	1		3				1	1		
9 Longshoreman—harbor worker						1	3		2							1
1,167 crewmember	135	23	189	120	11	9	212	2	65	36	52	2	38	63	11	108
43 other	8		3	3	1	1	8		3	5	3		2	1		17
Actively engaged in:																
194 Off duty	35	20	40	23	4	1	3		8		1		7	2	2	7
545 Deck department duties	49	1	81	50	4	7	104	2	34	11	8		29	20	7	42
283 Engine department duties	39	2	23	29	1		28		17	24	36	2	1	20	1	47
112 Stewards department duties	16		23	10			7		4		7		2	8	1	11
5 Handling cargo							2									
34 Fishing			2	4	1	1	12		2	1			8	1		
14 Drills			2	5		2	1						1			1
21 Passenger	2		7	4		1			3				1	1		
35 Other and unknown	4		2	3		1	7		3	4	3		1			2
Location of vessel:																
28 At dock	3	2		3		1	6		2	2	1		2	3		2
24 At anchor	3		4	2	2		8		1	1	1		1			1
1,191 Underway	139	21	176	123	10	11	210	4	68	39	54	2	38	62	11	106
Unknown																37

See footnote at end of table.

# STATISTICAL SUMMARY OF PERSONNEL INJURIES ON BOARD COMMERCIAL VESSELS<sup>1</sup>

Continued

(Not Involving a Vessel Casualty)

		Nature of injury												
		Slips and falls—ladders	Slips and falls—gangways	Slips and falls—on deck	Slips and falls—other	Falls from vessel—into water	Falls into holds or tanks	Struck by objects falling, dropped or moving	Exposure and asphyxiation	Struck against, crushed, bumped into objects	Operating machinery and tools	Burns and scalds (other than electrical)	Electrical shock and burns	Caught in lines, chains, or wire ropes
Totals														
Part of body injured:														
121	Head.....	22	2	9	15			29		10	3	6		1
41	Eye.....	1		1				11	1	3	2	14		
28	Neck and shoulder.....	5	1	6	3			2		45	35	28		39
704	Extremities.....	59	14	92	61	6	8	135		12	2	4	2	62
61	Chest.....	10	4	8	17	3	1	9		5	5	4		1
70	Abdomen and hip.....	9		16	3		1	6						2
194	Back.....	37	2	44	25	2	2	11		6	1	1		
24	Unspecified and miscellaneous.....	2		4	4	2		1	3					1

<sup>1</sup> Statistics concerning recreation and pleasure boating accidents are published in CG-357.

## lessons from casualties

### Death Dealing Drinks

This true story of five thirsty crew members of a Gulf Coast fishing boat provides tragic proof of the adage, "Alcohol and salt water don't mix!":

After spending a night anchored in the vicinity of the Mobile Ship Channel—a lonely Saturday night eased by the fellowship of good shipmates and liberal amounts of wine and whiskey brought on board—the vessel and its crew were supposed to proceed to the snapper fishing grounds in the Gulf of Mexico. During the "morning after," however, the captain found a red and white can which was labeled "lacquer thinner." Highballs of orange juice mixed with the contents of the can were poured for all hands and the can was thrown overboard. One crewmember didn't drink any of the brew because it didn't taste right to him, but the other four emptied their glasses.

The four that drank the concoction became ill and began vomiting. When their condition hadn't improved on Wednesday morning, the crewman who had not drunk any of the mixture decided to bring the men in for medical attention. The captain died within three days of their return to port; another crewmember died within a month. The two other crewmembers who drank the highballs lived, but were hospitalized for three months.

Autopsies of the bodies revealed that the cause of the death was the ingestion of carbon-tetrachloride. The chemical was used by personnel of the company that owned the fishing vessel to clean and maintain the fleet's electronic equipment. Though the chemical is normally kept locked in a store room ashore, the can found by the captain that Sunday morning was probably inadvertently left onboard the vessel by a repairman. The lesson should be obvious.

### Where's the Fire?

In the spring of 1972 the crew of a vessel proceeding through the ice packed waters of Lake Superior found their vessel's engine space suddenly filled with CO<sub>2</sub> from the fixed fire fighting system. No evidence of fire was found, and none of the men aboard had activated the system.

Subsequent investigation indicated that the ship's vibrations while grinding through the ice caused some of the system's CO<sub>2</sub> cylinders to rotate in their brackets. Those that rotated were the "pilot" cylinders; their motion activated the rest of the system.

A confined space suddenly filled with deadly carbon dioxide can be fatal to those trapped within. In this case no one was hurt; however, the lesson to be learned is that special attention should be paid to the tightening of the cylinder rack bolts to prevent similar unwanted and possibly dangerous discharges.



## Container Ship Visibility Manual Published

Sea-Land Service, Inc. has recently published a pamphlet entitled "Visibility Manual for Container Ships" as an educational and safety effort for the company's personnel as well as for pilots. It is felt that this effort on behalf of safer operation of container vessels is worthy of note. A sample page from the manual is reprinted below.

CLASS: C4-X, C4-X2, C4-X3

Charleston, Portland, Newark, Boston, Mobile, Brooklyn, Galveston, New Orleans, Philadelphia

1. Diagram is based on a draft of 26'-0" forward and aft.
2. Visibility forward is from centerline window in wheelhouse.
3. Visibility aft is from wheelhouse side doors.
4. For drafts other than the basic draft, the following corrections per foot of draft should be made.

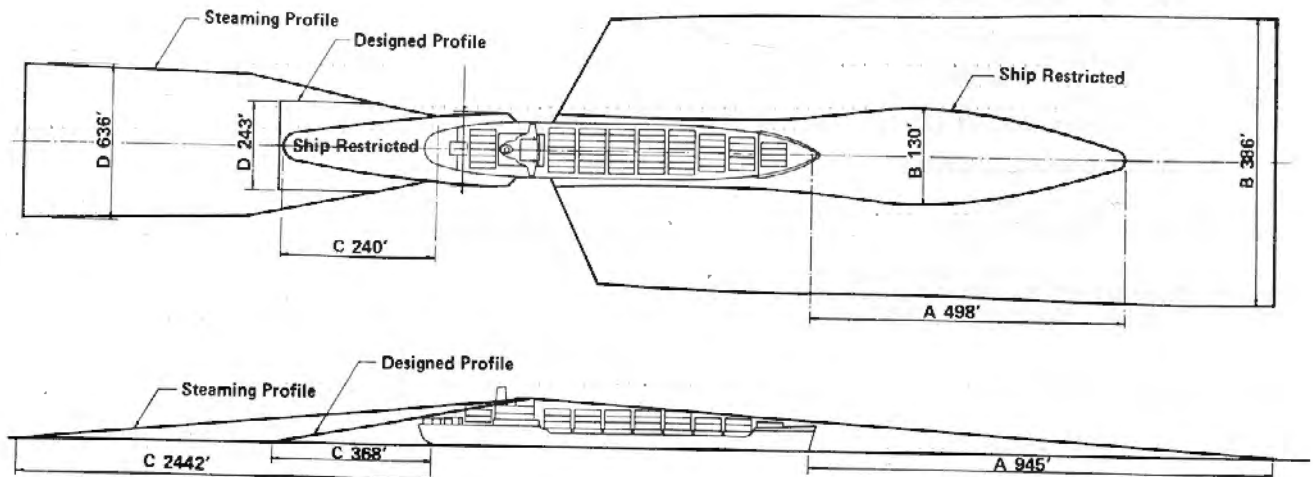
APPROXIMATE CORRECTION PER FOOT OF DRAFT				
	A	B	C	D
<b>Designed Profile</b>				
Increased Draft	-13	-8	-4	-6
Decreased Draft	+13	+8	+4	+6
<b>Steaming Profile</b>				
Increased Draft	-13	-8	-42	-6
Decreased Draft	+13	+8	+42	+6

5. In addition to the draft correction, the following modifications should be made for trim.

APPROXIMATE CORRECTION PER FOOT OF TRIM				
	A	B	C	D
<b>Designed Profile</b>				
Trim By Head	-40	-11	+8	+5
Trim By Stern	+40	+11	-8	-5
<b>Steaming Profile</b>				
Trim By Head	-40	-11	+10	+8
Trim By Stern	+40	+11	-10	-8

6. The following example shows how the corrections are made for draft and trim variations, assuming the designed profile applies.

	A	B	C	D
Data from Diagram 26' Draft	945	386	368	243
Corrections 2' Deeper Draft	-26	-16	-8	-12
Corrections 2' Stern Trim	+80	+22	-16	-10
Final Visibility Data	999	392	344	221



# COAST GUARD RULEMAKING

(Effective December 1, 1972)

	Notice of proposed rulemaking	Public hearing	Deadline for comments	Awaiting final action	Withdrawn	Published as rule	Effective date
<b>1971 PUBLIC HEARING</b>							
PH 8-71 Specification:							
8a. Lifeboat winches.....	2-24-71	3-29-71	5-15-71	.....	.....	8-24-72	9-22-72
8b. Lifeboats.....	2-24-71	3-29-71	5-15-71	.....	.....	8-24-72	9-22-72
8c. Line-throwing appliances.....	2-24-71	3-29-71	5-15-71	.....	.....	8-24-72	9-22-72
8d. Inflatable liferafts.....	2-24-71	3-29-71	5-15-71	.....	.....	8-24-72	9-22-72
PH 9-71 Fibrous glass-reinforced plastic construction of small passenger vessels.....	2-24-71	3-29-71	5-15-71	.....	.....	.....	.....
(Second Notice of Proposed Rulemaking due to revisions of original proposal).....	4-6-72	None	5-8-72	×	.....	.....	.....
<b>1972 PUBLIC HEARING</b>							
Tailshaft inspection and drawing (67-71, 4-71).....	3-1-72	3-27-72	4-3-72	×	.....	.....	.....
Stability-wind heel criteria for cargo and miscellaneous vessels (43-71).....	3-1-72	3-27-72	4-3-72	×	.....	.....	.....
Definition of international voyage (12-70).....	3-1-72	3-27-72	4-3-72	×	.....	.....	.....
Portable foam firefighting equipment—tank vessels (17- 71).....	3-1-72	3-27-72	4-3-72	×	.....	.....	.....
Visual acuity requirements, original licenses (23-71).....	3-1-72	3-27-72	4-3-72	×	.....	.....	.....
<b>ANCHORAGE REGULATIONS</b>							
Casco Bay, Maine.....	6-16-72	.....	7-19-72	×	.....	.....	.....
Henderson Harbor, N.Y.....	6-28-72	.....	8-1-72	×	.....	.....	.....
Puget Sound Area, Wash. (CGFR 72-13).....	2-3-72	.....	3-5-72	.....	.....	11-30-72	12-1-72
St. John's River, Fla. (CGFR 71-162).....	12-22-71	.....	1-31-72	×	.....	.....	.....
St. Marys River, Mich.....	6-7-72	7-6-72 7-12-72	7-15-72	.....	.....	11-4-72	12-1-72
San Francisco Bay Area (CGD 72-78).....	4-28-72	5-24-72 San Fran- cisco	5-27-72	×	.....	.....	.....
San Juan Harbor, P.R. (CGFR 72-12).....	2-1-72	.....	3-4-72	×	.....	.....	.....
Willington River, Ga. (CGFR 71-153).....	11-25-71	.....	12-27-71	×	.....	.....	.....
<b>BOATING SAFETY (GENERAL)</b>							
Numbering and casualty reporting (CGD 72-54) corrected; F.R. of 11-17-72.....	4-19-72	5-17-72	5-31-72	.....	.....	10-7-72	7-1-73
Revocation of Parts 171, 172, and 173 of Subchapter S of Title 46 (CGD 72-176).....	.....	.....	.....	.....	.....	10-7-72	1-1-73
Personal Flotation Devices (CGD 72-172, 120, 163).....	10-6-72	11-20-72	12-11-72	.....	.....	.....	.....
<b>BRIDGE REGULATIONS</b>							
Bear Creek, Md. (CGFR 72-17).....	2-2-72	.....	3-7-72	×	.....	.....	.....
Chattahoochee River (CGFR 71-166).....	12-29-71	1-26-72 Florida	1-27-72	×	.....	.....	.....
Idaho State Memorial Bridge, Clearwater River, Lewiston, Idaho (CGFR 71-169).....	12-29-71	2-1-72	2-1-72	×	.....	.....	.....
Interstate 1-90 at Lake Washington (CGFR 71-168).....	12-21-71	1-27-72 Washing- ton	1-27-72	×	.....	.....	.....
Three Mile Creek (CGD 72-217).....	.....	.....	.....	.....	.....	11-4-72	11-15-72 through 1-13-72
White River, Ark. (CGD 72-213).....	.....	.....	.....	.....	.....	11-3-72	11-3-72

# Coast Guard Rulemaking—Continued

	Notice of proposed rulemaking	Public hearing	Deadline for comments	Awaiting final action	Withdrawn	Published as rule	Effective date
Humble Canal, La. (CGD 72-227).....						11-28-72	1-29-73 through 3-11-73
North Fork, Mokelumne R., Calif. (CGD 72-218).....	11-8-72		12-12-72	X			
Raritan R., N.J. (CGD 72-219).....	11-8-72	12-14-72	12-29-72	X			
Nansemond R., Va (CGD 72-244).....	11-11-72		12-15-72	X			
Biscayne Bay, Fla. (CGD 72-230).....	11-28-72		1-2-73	X			
John Day R., Blind Slough, Clatskanie R., Oregon (CGD 72-231).....				X			
Oakland Inner Harbor Tidal Canal, Calif., (CGD 72-225).....	11-28-72		1-2-73	X			
Nanticoke, Del. (CGFR 71-142).....	11-17-72		12-22-72	X			
Ogden Slip, Chicago, Ill. (CGFR 72-16).....	11-24-71		12-24-71	X			
Sacramento River, Cal. (CGFR 71-165).....	2-2-72		3-7-72	X			
Saginaw River, Mich. (CGFR 72-18).....	12-29-71		2-7-72	X			
Union Pacific RR Co., Columbia River (CGFR 71-167).....	2-2-72		3-7-72	X		11-17-72	1-1-73
	12-29-71	2-23-72 Washington	1-27-72	X			
Fort Caswell Bridge, N.C. ....	6-21-72		7-25-72			11-25-72	1-1-73
Mare Island, Cal. ....	6-30-72		8-7-72	X			
Ohio River at Huntington. ....	6-10-72	7-13-72	7-27-72	X			
Ortega River, Fla. ....	6-21-72		7-25-72	X			
Alabama River, Ala. (CGD 72-159P).....	8-22-72		9-26-72	X			
Clear Creek, Tex. (CGD 72-165P).....	8-26-72		10-3-72	X			
New River, Fla. (CGD 72-170P).....	8-30-72		10-3-72	X			
Pompano Beach, Fla. (CGD 72-158P).....	8-22-72		9-26-72	X			
St. Lucie River, Fla. (CGD 72-168P).....	8-26-72		10-3-72	X			
West Palm Beach, Fla. (CGD 72-167P).....	8-26-72		10-3-72	X			
Back Bay of Biloxi, Miss. (CG 72-173R).....				X		9-7-72	10-2-72 through 3-3-73
Great Canal, Satellite Beach, Brevard County, Fla. (CGD 72-175PH).....	9-13-72	10-30-72	11-13-72	X			
Debbies Creek, Manasquan, N.J. (CGD 72-138R).....	9-14-72		10-24-72	X			
Drawbridge Operations:							
AIWW, Mile 342, Fla.; Drawbridge Operations (CGD 72-190P).....	9-30-72		11-1-72	X			
Barneget Bay, N.J. (CGD 72-211).....	10-31-72		12-5-72				
Middle Branch, Patapsco River, Md. (CGD 72-212).....	10-31-72		12-5-72				
Alabama River, Ala. (CGD 72-203).....	10-14-72		11-20-72	X			
Ewing Narrows, Harpswell, Me. (CGD 72-205).....	10-17-72	11-21-72	12-6-72				
HAZARDOUS MATERIALS							
Cold compressed gases (CGFR 72-10).....	10-16-71	1-11-72	1-18-72	X			
Etiologic agents (CGFR 71-170).....	1-21-72	12-22-72	2-29-72			9-30-72	12-30-72
Radioactive materials (CGFR 71-62).....	1-7-72	3-28-72	4-4-72	X			
Radioactive materials (CGFR 71-136).....	7-9-71	8-24-71	8-31-71	X			
Radioactive materials packages (CGD 72-91).....	11-20-71	2-22-72	2-29-72	X			
Compressed Gas Cylinders (CGD 72-115PH).....	5-24-72	6-20-72	6-27-72	X			
Dangerous Cargoes—Dichlorobutene (CGD 72-162PH).....	8-31-72	9-28-72	10-2-72	X			
Etiologic Agents—Supplemental Notice (CGD 72-148PH).....	8-30-72	10-24-72	10-31-72	X			
Dangerous Cargoes—Phosphorus Pentasulfide (CGD 72-171PH).....	8-9-72	9-5-72	9-12-72	X			
Dichlorobutene, Corrected, F.R. 9-20-72, Hazardous Cargoes (CGD 72-162PH).....	9-6-72	10-24-72	10-31-72	X			
Dangerous Cargoes; Nitrogen Tetroxide (CGD 72-34).....	8-30-72	10-24-72	10-31-72	X			
Certification of Cargo Containers for Transport under Customs Seal (CGD 72-139).....						11-11-72	2-16-73
	11-17-72		12-19-72	X			

See footnote at end of table.

# Coast Guard Rulemaking—Continued

	Notice of proposed rulemaking	Public hearing	Deadline for comments	Awaiting final action	Withdrawn	Published as rule	Effective date
<b>MARINE ENVIRONMENT AND SYSTEMS (GENERAL)</b>							
Oil pollution prevention (CGFR 71-160, 161).....	12-24-71	2-15-72	4-21-72	×			
Atlantic Intracoastal Waterway, Vero Beach, Fla. (CGD 72-155P).....	8-16-72		9-19-72	×			
Revocation of Standards of Waterfront Security (CGD 72-194).....						11-3-72	11-6-72
<b>MERCHANT MARINE SAFETY (GENERAL)</b>							
Buoyant devices, special purpose water safety (CGFR 72-5).....	1-29-72		3-15-72	×			
Documentation ports (CGFR 72-19).....	2-4-72		4-4-72	×			
Fire extinguishers, marine type portable (CGFR 72-36).....	3-9-72	4-18-72	4-24-72	×			
Incombustible materials (CGFR 72-47).....	3-9-72	4-18-72	4-24-72	×			
Oceanographic vessels, fire main systems (CGFR 72-20).....	2-4-72		3-19-72	×			
Washroom and toilet facilities (CGFR 72-4).....	1-15-72		3-20-72	×			
Water lights, floating electric (CGFR 72-48).....	3-9-72	4-18-72	4-24-72	×			
Great Lakes Maritime Academy, List as a Nautical School-Ship (CGD 72-92P).....	8-9-72		9-15-72	×			
Revocation of Fernandina Beach as a Port of Documentation (CGD 72-75P).....	8-9-72		9-12-72	×			
Ship's Maneuvering Characteristics Data (CGD 72-132PH).....	8-22-72	9-28-72	10-13-72	×			
Disclosure of safety standards (CGD 72-187).....	10-31-72		12-4-72	×			
Unmanned Barges; hull construction (CGD 72-130).....	10-31-72	12-19-72	12-29-72	×			
Great Lakes Bridge-to-Bridge Exemption (CGD 72-223).....	11-11-72	12-4-72	12-15-72	×			
Marine Engineering Systems and Components (CGD 72-206).....	11-17-72	12-12-72	12-20-72	×			
Remote Valve Controls (CGD 72-57).....	11-17-72		12-19-72	×			
Update of Examination Requirements for Second and Third Mate (CGD 72-151).....	11-16-72		1-1-73	×			

1 Extension of comment period and second public hearing.

**NOTE:** This table which will be continued in future issues of the Proceedings is designed to provide the maritime public with better information on the status of changes to the Code of Federal Regulations made under authority granted the Coast Guard. Only those proposals which have appeared in the Federal Register as Notices of Proposed Rulemaking, and as rules will be recorded. Proposed changes which have not been placed formally before the public will not be included.

## AMENDMENTS TO REGULATIONS

### TITLE 33—NAVIGATION AND NAVIGABLE WATERS

#### Chapter I—Coast Guard, Department of Transportation

[CGD 72-96 R]

#### PART 92—ANCHORAGE AND NAVIGATION REGULATIONS; ST. MARYS RIVER, MICH.

#### Speed Limits for Vessels of 50 Gross Tons or More

This amendment establishes permanent speed limits for the St. Marys River in Part 92 of Title 33 of the Code of Federal Regulations.

This amendment is based on a notice of proposed rule making published in the Wednesday, June 7, 1972, issue of the Federal Register (37 F.R. 11342), and public hearings held at Cleveland, Ohio, on July 6, 1972, and at Sault Ste. Marie, Mich., on July 12, 1972.

At the public hearing held in Cleveland, Ohio, on July 6, 1972, five (5) persons attended. Comments were received from a representative of the Lake Carriers' Association to the effect that the establishment of permanent speed regulations as proposed would not accrue the intended results; would unwarrantably restrict the navigation of commercial vessels; and under adverse conditions may jeopardize the safety of such vessels



with possible adverse environmental impact on the adjacent surroundings. It was further stated that the Lake Carriers' Association believes that this further abridgement of reasonable access by users of the waterway is not warranted and urged that the present method of flexibility in the adjustment of speed regulations on the St. Marys River be continued. It was recommended by the representative of the Lake Carriers' Association that an unbiased organization be commissioned to study the problem.

A representative of the Great Lakes and Rivers District Masters, Mates and Pilots supported the stand taken by the Lake Carriers' Association.

The proposed regulations authorizes the Commander, Ninth Coast Guard District to establish, raise, lower, or otherwise amend the speed regulations. In exercising this authority, the District Commander will consider all interests affected by the speed of vessels, including the mariner as well as the protection of the property of riparian owners.

At the public hearing held in Sault Ste. Marie, Mich., on July 12, 1972, approximately 100 persons attended. Representatives of the marine transportation industry objected to making the lower temporary speeds permanent feeling that they would be permanently penalized since the reduced speeds were established as a result of high water which history indicates is of a temporary nature. The high water has existed for the past few years and it has been necessary to impose temporary speed limits in an effort to reduce damage to littoral property. The safe navigation of large commercial vessels transiting areas of changing river currents as well as the efficient utilization of the waterway were considered. The proposed regulations provide that the Commander, Ninth Coast Guard District may establish, raise, or lower the speed limits on the St. Marys River should future needs require such change.

All of the property owners who testified recommended that the proposed

speed limits be adopted, and in some instances, recommended a lower-speed limit.

Several pilot organizations commented that the regulations should contain a provision to the effect that when conditions of good seamanship indicate, a departure from the prescribed speed limits is authorized. These recommendations were not adopted. The Coast Guard, in processing violation cases, takes into consideration all aspects of each case including unusual conditions and circumstances which might require a pilot to exceed the speed limit on occasion to maintain control of his vessel. The Coast Guard has the authority to close such cases without action and remit or mitigate any penalties involved.

Three comments were submitted to the effect that the \$200 penalty assessment for violation of the speed limits was ineffective and should be substantially increased. This suggestion cannot be adopted as the \$200 penalty is prescribed by statute and not by regulation.

Eight comments were submitted recommending that the speed limits apply to pleasure craft as well as vessels of 50 gross tons or over. Since this proposal was not contained in the original notice of proposed rule making, the Coast Guard will consider this amendment by separate rule making action.

The notice of proposed rule making recommended that various speed limits be established for the entire St. Marys River from Point Iroquois to Point De Tour.

Based on comments received at the public hearings and observations by Coast Guard personnel, some of the areas in the original proposal have been deleted as no erosion problems exist in these areas. These include the areas in Lake Munuscong between Point Aux Frenes and Buoy Lt 9 off Winter Point and between Point Aux Frenes and Buoy R-8. Also deleted was the proposed speed limit between Sweets Island and Round Island. Additionally, the proposed speed limit

has been terminated at Point Louise instead of Point Iroquois.

The representative of the upper Great Lakes pilots objected to the proposed speed limit of 14 m.p.h. between Round Island and Lake Munuscong Lighted Bell Buoy. He pointed out that this was an area of relative open water which is an ideal place for vessels to pass.

In view of these comments, the proposal has been amended so that the 14-m.p.h. speed limit will apply only between Round Island and Point Aux Frenes.

The Upper Great Lakes pilots representative further objected to the fact that, under the proposal, a vessel would be required to reduce speed from 12 m.p.h. to 10 m.p.h. at Light 33 Downbound just when a vessel is maneuvering for a left turn into the narrower and swifter waters of Rock Cut. At the public hearing the residents of the shore in this area, as well as residents along the shore from Nine-Mile Point to Light 33 complained of the wake damage caused by passing vessels.

In view of these comments the amendment has been changed from the proposal so that the 10 m.p.h. speed limit in the Downbound channel will apply from Nine-Mile Point to West Neebish Channel Light 10 off Winter Point.

An additional comment was made by the Upper Great Lakes pilots representative regarding the establishment of a 10 m.p.h. speed limit between Nine-Mile Point and Six-Mile Point. It is pointed out that the temporary speed limit in this area is presently 10 m.p.h. imposed because of the extreme high water and the resulting wake damage along the shoreline based on comments received and observations made by the Coast Guard.

A 15 m.p.h. speed limit was proposed between Buoy R-2 in Lake Munuscong and Everens Point and a 9 m.p.h. speed limit between Everens Point and Johnson Point. In accordance with comments received, the amendment has been changed

from the proposal to establish a 12 m.p.h. speed limit between Buoy R-8 and Everens Point to allow vessels to slow down prior to entering the 9 m.p.h. speed zone at Everens Point. This will decrease the chances of wake damage in this area.

In consideration of the foregoing, §§ 92.49 and 92.53 of Part 92 of Title 33 of the Code of Federal Regulations are amended to read as follows:

**§ 92.49 Speed limits for vessels of 50 gross tons or over.**

(a) The speed limits in paragraphs (b), (c), and (d) of this section are in statute miles per hour over the ground. The speed limits may not be exceeded by any upbound or downbound vessel of 50 gross tons or over.

(b) Detour Reef Light to Point Aux Frenes: The speed limit between—

(1) Detour Reef Light and Sweets Point is 17 miles per hour; and

(2) Round Island Light and Point Aux Frenes is 14 miles per hour.

(c) Munuscong Channel Lighted Buoy 8 to Lake Nicolet Light 80: The speed limit between—

(1) Munuscong Channel Buoy 8 and Munuscong Channel Buoy 14 is 12 miles per hour;

(2) Munuscong Channel Buoy 14 and Munuscong Channel Buoy 26 is 9 miles per hour;

(3) Munuscong Channel Buoy 26 and Lake Nicolet Lighted Buoy 62 is 10 miles per hour; and

(4) Lake Nicolet Lighted Buoy 62 and Lake Nicolet Light 80 is 12 miles per hour.

(d) Lake Nicolet Light 80 and West Neebish Channel Light 10: The speed limit between Lake Nicolet Light 80 and West Neebish Channel Light 10 is 10 miles per hour;

(e) Lake Nicolet Light 80 to Point Louise: The speed limit between—

(1) Lake Nicolet Light 80 and Six-Mile Point Range Rear Light is 10 miles per hour;

(2) Six-Mile Point Range Rear Light and the lower limit of the St. Marys Falls Canal is 8 miles per hour for upbound vessels and 10 miles per hour for downbound vessels; and

(3) The upper limit of the St. Marys Falls Canal and Point Louise is 12 miles per hour.

(f) The Commander, Ninth Coast Guard District may establish, raise, lower, or otherwise amend speed limit regulations on the St. Marys River. In exercising this authority, the District Commander considers all interests affected by the speed of vessels in the river, including the protection of the property of riparian owners. The regulations issued by the Commander, Ninth Coast Guard District are published in the FEDERAL REGISTER and in the Notice to Mariners.

**§ 92.53 [Deleted]**

(Secs. 1-3, 29 Stat. 54, as amended, sec. 6(b), 80 Stat. 937; 33 U.S.C. 474, 49 U.S.C. 1655(b); 49 CFR 1.46(b))

Effective date: This amendment becomes effective on December 1, 1972.

Dated: November 1, 1972.

C. R. BENDER,  
*Admiral, U.S. Coast Guard,*  
*Commandant.*

(Federal Register of November 4, 1972)

## **TITLE 33—NAVIGATION AND NAVIGABLE WATERS**

### **Chapter I—Coast Guard, Department of Transportation**

#### **SUBCHAPTER K—SECURITY OF VESSELS**

[CGD 72-194R]

#### **PART 121—SPECIAL VALIDATION ENDORSEMENT FOR EMER- GENCY SERVICE FOR MER- CHANT MARINE PERSONNEL**

##### **SUBCHAPTER L—SECURITY OF WATERFRONT FACILITIES**

#### **PART 125—IDENTIFICATION CRE- DENTIALS FOR PERSONS RE- QUIRING ACCESS TO WATER- FRONT FACILITIES OR VESSELS**

##### **Revocation of Standard**

The amendments in this document to the security regulations revoke one of the standards that the Coast Guard uses to determine whether or not an applicant for a special validation endorsement for emergency service, or a holder of such endorsement, may be precluded from a determination

that his character and habits of life are such to warrant the belief that his presence on board vessels of the United States would not be inimical to the security of the United States. This standard is contained in §§ 121.03(e) and 125.19(e) of Title 33, Code of Federal Regulations, and concerns membership in, or affiliation or sympathetic association with any foreign or domestic organization, association, movement, group, or combination of persons designated by the Attorney General pursuant to Executive Order 10450, as amended.

In a review of its security program, the Coast Guard has determined that the standard contained in §§ 121.03(e) and 125.19(e) is stated in indefinite terms and such vagueness does not fully inform the public of the standard to be applied. This document revokes these sections as an interim measure until a more definitive delineation of the standard to be applied is proposed in the Federal Register.

Since the amendment in this document contains a revocation of a general statement of policy, the exception to the notice of proposed rule making contained in 5 U.S.C. 553(b) (A) applies, and the revocation may be made effective in less than 30 days, as authorized by 5 U.S.C. 553(d) (2).

In consideration of the foregoing, Chapter 1 of Title 33, Code of Federal Regulations is amended as follows:

1. By revoking paragraph (e) of § 121.03.

2. By revoking paragraph (c) of § 125.19.

(Executive Orders 10173, 10277, and 10352, 3 CFR, 1949-53 Comp., pp. 356, 778, and 873; sec. 6(b)(1), 80 Stat. 937; 49 U.S.C. 1655(b)(1); 49 CFR 1.46(b))

Effective date. This amendment shall become effective on November 6, 1972.

Dated: October 27, 1972.

C. R. BENDER,  
*Admiral, U.S. Coast Guard,*  
*Commandant.*

(Federal Register of November 3, 1972)

## 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 will be furnished by mail to subscribers, free of postage, for \$2.50 per month or \$25 per year, payable in advance. The charge for individual copies is 20 cents for each issue, or 20 cents for each group of pages as actually bound. Remit check or money order, made payable to the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Regulations for Dangerous Cargoes, 46 CFR 146 and 147 (Subchapter N), dated January 1, 1972 are now available from the Superintendent of Documents price: \$3.75.

CG No.	TITLE OF PUBLICATION
101	Specimen Examination for Merchant Marine Deck Officers (7-1-63).
108	Rules and Regulations for Military Explosives and Hazardous Munitions (4-1-72). F.R. 7-21-72.
115	Marine Engineering Regulations (7-1-70) F.R. 12-30-70, 3-25-72, 7-18-72.
123	Rules and Regulations for Tank Vessels (5-1-69) F.R. 10-29-69, 2-25-70, 6-17-70, 10-31-70, 12-30-70, 3-8-72, 3-9-72, 6-14-72, 7-18-72, 10-4-72, 10-14-72.
129	Proceedings of the Marine Safety Council (Monthly).
169	Rules of the Road—International—Inland (8-1-72). F.R. 9-12-72.
172	Rules of the Road—Great Lakes (7-1-72). F.R. 10-6-72, 11-4-72.
174	A Manual for the Safe Handling of Inflammable and Combustible Liquids (3-2-64).
175	Manual for Lifeboatmen, Able Seamen, and Qualified Members of Engine Department (3-1-65).
176	Load Line Regulations (2-1-71) F.R. 10-1-71.
182	Specimen Examinations for Merchant Marine Engineer Licenses (7-1-63).
184	Rules of the Road—Western Rivers (8-1-72). F.R. 9-12-72.
190	Equipment Lists (8-1-70). F.R. 8-15-70, 9-29-70, 9-24-71, 9-30-71, 10-7-71, 10-14-71, 10-19-71, 10-30-71, 11-3-71, 11-6-71, 11-10-71, 11-23-71, 12-2-71, 1-13-72, 1-20-72, 2-4-72, 2-19-72, 3-3-72, 3-9-72, 9-14-72, 3-14-72, 4-4-72, 4-28-72, 5-10-72, 5-17-72, 6-14-72, 6-21-72, 7-4-72, 8-9-72, 8-11-72, 8-31-72, 9-14-72, 10-19-72, 11-8-72.
191	Rules and Regulations for Licensing and Certification of Merchant Marine Personnel (6-1-72).
200	Marine Investigation Regulations and Suspension and Revocation Proceedings (5-1-67). F.R. 3-30-68, 4-30-70, 10-20-70, 7-18-72.
220	Specimen Examination Questions for Licenses as Master, Mate, and Pilot of Central Western Rivers Vessels (4-1-57).
227	Laws Governing Marine Inspection (3-1-65).
239	Security of Vessels and Waterfront Facilities (3-1-72). F.R. 11-3-72.
249	Marine Safety Council Public Hearing Agenda (Annually).
256	Rules and Regulations for Passenger Vessels (5-1-69). F.R. 10-29-69, 2-25-70, 4-30-70, 6-17-70, 10-31-70, 12-30-70, 3-9-72, 7-18-72, 10-4-72, 10-14-72.
257	Rules and Regulations for Cargo and Miscellaneous Vessels (8-1-69). F.R. 10-29-69, 2-25-70, 4-22-70, 4-30-70, 6-17-70, 10-31-70, 12-30-70, 9-30-71, 3-9-72, 7-18-72, 10-4-72, 10-14-72.
258	Rules and Regulations for Uninspected Vessels (5-1-70).
259	Electrical Engineering Regulations (6-1-71). F.R. 3-8-72, 3-9-72, 8-16-72.
266	Rules and Regulations for Bulk Grain Cargoes (5-1-68). F.R. 12-4-69.
268	Rules and Regulations for Manning of Vessels (10-1-71). F.R. 1-13-72.
293	Miscellaneous Electrical Equipment List (9-3-68).
320	Rules and Regulations for Artificial Islands and Fixed Structures on the Outer Continental Shelf (7-1-72). F.R. 7-8-72.
323	Rules and Regulations for Small Passenger Vessels (Under 100 Gross Tons) (12-1-71). F.R. 3-8-72, 3-25-72, 6-24-72, 7-18-72.
329	Fire Fighting Manual for Tank Vessels (7-1-68).

### CHANGES PUBLISHED DURING NOVEMBER 1972

The following have been modified by Federal Registers:

CG-190, Federal Register of November 8, 1972.

CG-239, Federal Register of November 3, 1972.

CG-172, Federal Register of November 4, 1972.



