

UNITED STATES COAST GUARD

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COMMANDANT  
U.S. COAST GUARD  
HEADQUARTERS  
WASHINGTON 25, D.C.



MVI  
(JANE - MORMACPINE  
a-13 Bd)

6 JUN 1960

Commandant's Action

on

Marine Board of Investigation; collision between the  
FV JANE and SS MORMACPINE, sinking of the JANE, off  
Cape Flattery, Strait of Juan de Fuca, 27 September  
1959 with loss of life

1. The record of the Marine Board of Investigation convened to investigate subject casualty, together with its Findings of Fact, Opinions and Recommendations has been reviewed.
  
2. Early on the morning of 27 September 1959 the American freight vessel MORMACPINE en route San Pedro, California, to Seattle, Washington was proceeding northward at 11.5 knots off the Washington coast. The master and second mate were on the bridge. At 0720 a fog bank was observed ahead about four miles away in the vicinity of Tatoosh Island. A lookout was posted on the bow and fog signals were commenced. The engine was placed on standby but no reduction in speed was made. The radar was on and appeared to be operating satisfactorily showing a good presentation of land mass but no vessel targets were observed. At 0734 Tatoosh Island was abeam to starboard. At this point the vessel had entered the fog bank and visibility was between 500 and 1,000 yards. At 0746 with Tatoosh bearing 145°T three miles off the master ordered right rudder to enter the Strait of Juan de Fuca. At this same time the lookout reported by phone to the master that he heard a whistle ahead. Immediately the engine was stopped and the master checked the radar which was on the eight-mile scale but observed no vessel targets. Approximately one and one-half minutes later the lookout reported sighting a vessel 1,000 feet ahead fine on the starboard bow. This later proved to be the FV JANE. The JANE appeared to be underway with little or no way on and was heading across the bow of the MORMACPINE from starboard to port. Upon receiving the report from the lookout the master ordered full astern on the engines. The rudder was already hard right. The response to the engine order was immediate but these maneuvers did not succeed in evading the JANE and at about 0755, with the MORMACPINE making an estimated three to four knots through the water, her bow struck and holed the JANE on the port side in way of the forward end of the JANE's pilothouse.

3. The JANE, a 49 foot, wood hull, American fishing vessel with the master and four crew members aboard departed Neah Bay, Washington at about 0600 en route to the fishing grounds near Destruction Island at the entrance to the Strait of Juan de Fuca. After clearing the harbor the vessel headed west at half speed - approximately five knots - into a nine-foot westerly swell. At about 0720 fog was encountered. The master came to the bridge, took the wheel and began sounding fog signals. Five minutes later speed was further reduced to four knots. Some time later the master ordered the stabilizers rigged to reduce the vessel's roll as the seas had increased. The man who had previously had the wheel and had remained in the pilothouse then went below to call two other crew members to assist. While waiting for the others the helmsman was standing on the fore deck acting as lookout and had been there two to three minutes when he heard the master shout "Look out!" Shifting his gaze from right to left the helmsman saw the bow of the MORMACPINE bearing down on the port side of the JANE about 50 or 60 feet away and felt the engine of the JANE being reversed and the revolutions increased. Within seconds the collision occurred.

4. The MORMACPINE was undamaged but the JANE was severely holed and after passing down the starboard side of the MORMACPINE she sank about three minutes after the collision. The momentum of the MORMACPINE carried her past the scene of the accident but the master took a bearing on the JANE before she disappeared in the fog. The MORMACPINE then came about and in the meantime lowered her motor lifeboat to just above the water's edge. Returning to the scene only wreckage of the JANE was visible. Two survivors were observed to starboard and with the aid of heaving lines they were hauled in alongside No. 2 hatch where a jacob's ladder was rigged. John F. Murray, A.B., Z-403414, descended the ladder and although he was alternately submerged and raised above the surface of the water by the motion of the vessel he succeeded in assisting both men up the ladder to safety. A third survivor was rescued by the motor lifeboat. The master and fifth crew member were not recovered and are presumed dead.

#### REMARKS


1. Concurring with the Board it is considered that the principal cause of this collision was the failure of the MORMACPINE to go at a moderate speed in the fog. In this connection there can be little doubt that undue reliance was placed on the fact that no vessel targets were observed on the radar and that the radar appeared to be working properly. While there is no evidence in the record to indicate whether or not any attempt was made to periodically shift the range scale as the Board pointed out, such procedure is often successful in detecting targets not visible on one range scale alone.

2. Although the Board concluded that no violation of any navigation rules or wrongful acts on the part of the JANE contributed to the collision the question of a proper lookout aboard the JANE is raised by the record. The crew member who was relieved at the wheel by the master indicated that he remained in the pilothouse until he went below to rouse the other deck crew members to help rig the stabilizers. When he returned topside he took position on the fore deck to act as lookout and within two or three minutes the collision occurred. Had he been out on deck well forward and away from any distractions prior to that time there remains the possibility that he might have heard the fog signal of the MORMACPINE thereby providing additional time in which to take avoiding action.

3. The Board was also of the opinion that the use of a radar reflector aboard the JANE may have made her a more effective radar target. Considerable work and study have been and are presently going on in the field of radar reflectors, both in materials and design; however, recent tests conducted by the Testing and Development Division of the Coast Guard indicate that the increase in radar detectability presently offered by this equipment is definitely limited and offers no assurance that vessels so equipped will be observed by radar in time to avoid collision or even that they will be observed at all. To the extent that the owners of small vessels, particularly those of non-metallic construction, should be encouraged to employ any means which might improve radar detectability the recommendation of the Board in this regard is approved. At the same time, however, it should be publicized to all mariners that the greatest chance of avoiding collisions still lies in scrupulous adherence to the Rules of the Road.

4. Recognition of the commendable action on the part of John F. Murray, A.B. Z-403414 will be given.

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

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

A25/4936  
7 December 1959

Marine Board of Investigation  
SS MORMACPINE - F/V JANE  
618 Second Avenue  
Seattle 4, Washington

From: Marine Board of Investigation  
To: Commandant (MVI)  
Via: Commander, 13th Coast Guard District (d)

Subj: Collision in fog between SS MORMACPINE and F/V JANE off entrance to Strait of Juan de Fuca on 27 September 1959, with loss of life

#### FINDINGS OF FACT

1. The SS MORMACPINE and the seine fishing boat JANE collided in dense fog at approximately 0750 hours, P.s.t., on 27 September 1959, approximately four (4) miles northwest of Duntze Rock Buoy at the entrance to the Strait of Juan de Fuca. The JANE sank as a result of the collision with an estimated loss in the amount of \$65,000, and the MORMACPINE received no apparent damage. The master and one crewmember of the JANE were lost and presumed dead; one crewmember was injured.

2. Vessel specifications and information are as follows:

a. SS MORMACPINE:

(1) Nationality	U. S. A.	
(2) Type	Inspected Victory freight vessel.	
(3) Official number	247477	
(4) Home port	New York, N. Y.	
(5) Type propulsion	Turbo-electric; 8500 h.p.	
(6) Year and place built	1945; Portland, Oregon	
(7) Tonnage	7,632 gross; 4,599 net	
(8) Length, breadth and depth	439.1 by 62.1 by 34.5	
(9) Date and place last inspected	21 May 1959; Baltimore, Maryland	
(10) Draft	Forward: 19' 06"; Aft: 24' 08"	
(11) Gyro compass	Yes	
(12) Course recorder	No	
(13) Radio direction finder	Yes	
(14) Fathometer	Yes	
(15) Radar	Yes; RCA, model CR101A	
(16) Steering	Electro-hydraulic	
(17) Vessel's speed	Slow 20 r.p.m.	4.52 knots
	Half 40 r.p.m.	9.04 knots
	Maximum 85 r.p.m.	19.21 knots
(18) Backing power (% full ahead)	80 percent at 45 r.p.m.	
(19) Time needed to go from full ahead to full astern on the engines	15 seconds	
(20) Overall slip on day in question	16.2 percent to 20 percent	

- (21) Owner and operator
- (22) Master

Moore-McCormack Lines, Inc.  
Stephen H. Elliot, 8 Parker Road,  
Convent Station, New Jersey

b. JANE

- (1) Nationality American
- (2) Type Motorboat, wood construction
- (3) Official number 229345
- (4) Home port Seattle, Washington
- (5) Type propulsion Cummins Diesel; single screw
- (6) Year built 1930
- (7) Tonnage 23 net
- (8) Length, breadth and depth 49.7 by 14.5 by 6.8
- (9) Date and place last inspected Uninspected - licensed for fishing
- (10) Compass Magnetic
- (11) Radio telephone Yes
- (12) Steering Manual and automatic
- (13) Vessel's speed
  - Slow 60 r.p.m. 1½ knots
  - Half 900 r.p.m. 4½ knots
  - Full 1500 r.p.m. 8½ knots
- (14) Backing power 100% with immediate engine response
- (15) Owner P. H. Toft, 3036 W. 60th, Seattle  
Washington
- (16) Master Harold C. Toft, 6209 - 7th N.W.,  
Seattle, Washington

3. The weather at the time of the casualty was: Wind from the northwest at force 5, approximately nine foot sea from the northwest, dense fog.

4. The MORMACPINE departed San Pedro, California on 24 September 1959, en route Seattle, Washington, with approximately 4449 long tons of general cargo which gave her a draft of 20' 01" forward and 23' 09" aft. On 27 September 1959, at approximately 0400 hours, the vessel's second officer, Raymond Howard, Z-764330, took charge of the vessel's navigation. The vessel at this time was proceeding up the Washington coast south of Umatilla Reef at approximately 11.5 knots (62 r.p.m.) on course between approximately 009 and 011 degrees true. Upon arriving on the bridge at approximately 0400 hours, Mr. Howard turned on the vessel's radar set and observed that it was working properly.

5. At 0634 hours on 27 September the MORMACPINE was abeam of and some two miles to the west of Umatilla Reef Lightship. At this time the master was notified of this fact, pursuant to his night orders, and Captain Elliot arrived on the bridge at approximately 0635 hours. Shortly before 0720 hours the master and the second officer observed fog ahead in the direction of Vancouver Island, and at 0720 hours the engine was placed on standby because of the approaching fog bank; this action did not order any reduction in engine speed, which remained at approximately 62 r.p.m. At 0720 hours the vessel was approximately 4.6 miles due west of Waatch Point and 4.2 miles southwest of Tatoosh Island (position No. 1, CG Exhibit No. 5). The fog bank was approximately four miles ahead of the vessel at this time, in the general area of Tatoosh Island (C&GS Chart No. 6265). A lookout was posted on the bow, and the sounding of fog signals was commenced. No vessel targets were visible on the radar scope.

6. At 0734 hours, with Tatoosh Island abeam to starboard, Mr. Howard took a radar bearing of the island and found it to be 2.29 miles distant, bearing 098 degrees true (position No. 2, CG Exhibit No. 5). The vessel at this point was in the fog with visibility between 500 and 1,000 yards. The master had stationed himself at the radar set when the fog closed in, while the second officer operated the fog signal, took occasional radar bearings of nearby landmarks, and kept a lookout.

7. A few moments before 0746 hours the master ordered right rudder to bring the MORMACPINE around to starboard for entering the Strait of Juan de Fuca. During this sequence the bow lookout reported by phone to the master that he heard a whistle ahead, and, at 0746 hours, the master ordered the vessel's engine stopped, which was done. At this point the vessel was in approximate position 3 miles to the northwest of Tatoosh Island Light (position No. 3, CG Exhibit No. 5). The master then returned to observing the radar, which was on the 8 mile scale, but could observe no vessel targets on the scope. Approximately a minute and 30 seconds later the bow lookout reported sighting a vessel (the JANE) approximately 1,000 feet ahead and dead ahead to fine on the starboard bow. The JANE was underway with little or no way on, crossing the bow of the MORMACPINE from starboard to port.

8. Upon receiving the report by telephone from the bow lookout that the JANE was sighted, Captain Elliot immediately ordered full astern speed; this occurred at 0747.5 hours according to the engineroom bell log. Captain Elliot and the second mate then went to the starboard wing of the bridge, where the JANE was observed to be about 100 feet ahead. The MORMACPINE's rudder remained at hard right during this time. The JANE was kept under observation by Captain Elliot until it disappeared under the flare of the MORMACPINE's bow at approximately 0750 hours, at which time the vessel's engine was stopped.

9. John F. Murray, able seaman (Z-403414), was assigned lookout duty on board the MORMACPINE between 0700 and 0800 hours on the morning in question. He was ordered forward to the eyes of the vessel at 0720 hours due to approaching fog and assumed his station on the forecandle head between 0720 and 0730 hours. According to Murray the fog bank was approximately 0.5 miles ahead at that time. Shortly after arriving at the bow, Murray heard a fog whistle on the starboard beam, which he duly reported to the bridge by telephone. Murray believed that this signal came from shore because it sounded like a lighthouse whistle and came from the area where he could see mountains over the top of the fog bank, but he did not inform the bridge of his opinion. Approximately 2 minutes later Murray heard a different two-blast whistle approximately dead ahead or a bit to starboard which he reported to the bridge. Approximately a minute or so later Murray heard the second whistle again and much closer. As he was reaching for the phone he saw the hull of the JANE break out of the fog about 1,000 feet ahead, and he immediately reported the sighting to the bridge. Murray could see a man standing near the bow of the JANE and he called out repeatedly until the man turned and saw the

MORMACPINE bearing down. Moments later, at approximately 0750 hours, the bow of the MORMACPINE rammed the port side of the JANE in way of the forward edge of the JANE's pilothouse. The actual moment of collision was witnessed by Murray who testified, in part, that, "Well, our bow hit the ship and it opened up. You could see the inside, the interior of the ship the groceries and things like that . . . and see clothes and stuff like that inside."

10. The collision occurred in approximate Latitude  $48^{\circ} 25' 04''$  N., Longitude  $124^{\circ} 45' 47''$  W., bearing  $333^{\circ}$  true from Tatoosh Island Light distant 3.87 miles. (C&GS Chart No. 6265)

11. On the early morning of 27 September, 1959, the F/V JANE lay at anchor in Neah Bay, Washington. The complement of the vessel was as follows:

Harold C. Toft, master (missing and presumed dead);

Per B. Jorgensen, crewmember (missing and presumed dead),  
1102 East 146th, Seattle, Washington;

Harold E. Hansen, crewmember, 4113 24th Place South,  
Seattle, Washington;

Darwin E. Hoel, crewmember, 7220 Fourth Ave. N.W.,  
Seattle, Washington; and

Alfred Horn, crewmember, Route 1, Blaine, Washington.

12. At about 0600 hours or shortly thereafter, the JANE raised anchor and got underway en route to the entrance of the Strait of Juan de Fuca with the intention of fishing in the vicinity of Destruction Island. Toft and Hansen were in the wheelhouse and the remainder of the crew were below. Upon clearing Waada Island at the entrance to Neah Bay the vessel was headed west, proceeding at half speed ahead (approximately 5 knots) into approximately a 9-foot swell from the west. The automatic pilot was not engaged, the JANE being steered manually at all times during the period under discussion. Some 30 minutes before the collision, or at about 0720 hours, the JANE entered the fog bank lying across the straits in way of the entrance. At this time Tatoosh Island was on the port hand, distant some 5 miles.

13. Some ten minutes before the JANE entered the fog bank, Toft went down below to eat breakfast, leaving Hansen alone in the wheelhouse. When the vessel entered the fog bank Hansen commenced blowing a 4 to 5 second fog signal with the craft's electrically operated whistle. The master immediately returned to the bridge and took over the operation of the whistle. The visibility at this time on board the JANE was approximately 400 feet. Approximately 5 minutes after the master returned to the wheelhouse the swells worsened, and Toft reduced speed from 5 knots down to 4 knots or a bit less. The visibility had steadily worsened and was approximately 100 feet at that time. A few minutes later Toft decided to have the "stabilizers" rigged out. They are rigged out amidships, to port and starboard, and are for the purpose of reducing rolling in rough weather. According to survivors' testimony the initial step in rigging

this gear consisted in unshipping vertically stowed stabilizer poles and the extension of these poles out over the surface of the water (similar to the rigging of trolling poles) and securing them by appropriate guy and lift lines; the rigging of this gear is accomplished with the vessel stopped or proceeding slow ahead. Toft told Hansen to go down below and get the other crewmembers to help him in rigging the stabilizers. Hansen went down to the berthing area located just forward of the galley and told Jorgensen and Horn that the skipper wanted to rig the stabilizers and went back to the main deck, where he stood outside the wheelhouse near the bow. About two minutes later Hoel, who was in the galley, heard the vessel's engine slow to idling speed, and heard a noise which indicated to him that the clutch controls had been operated from the wheelhouse to disengage the shaft. Approximately one minute later Hoel felt and heard the engine go full astern followed in an additional minute's time by the collision.

14. Hansen, who was standing on the main deck outside the wheelhouse, was looking off the starboard side of the JANE and first became aware of danger when Toft called to Hansen to "Look out!" and also reversed the engine at full speed. Hansen looked to port and saw the bow of the MORMACPINE bearing down, distant approximately sixty feet away. Hansen also heard a man on the bow of the steamer (Murray) calling for the JANE to get out of the way. A moment later the two vessels collided and Hansen was knocked overboard into the water. Upon coming to the surface Hansen started to swim toward a piece of wreckage approximately one hundred feet distant. He could see a portion of the JANE, the rear of the wheelhouse aft to the stern, floating in the water on the far side of wreckage, stern uppermost, but it had sunk by the time Hansen reached the wreckage, some five minutes later. Just before starting for the wreckage Hansen saw the master about sixty to seventy feet away, also swimming toward the same wreckage. The two men exchanged a brief conversation to the effect that they were both "all right," and Hansen then devoted his attention to swimming. Upon reaching the wreckage, which was a portion of the JANE's keel and hull, Hansen looked around for Toft but could not see him, nor was he ever seen again. The momentum of the MORMACPINE carried it onwards after the collision, and the vessel had disappeared in the fog.

15. Horn and Jorgensen were in the berthing quarters just forward of and open to the galley area when Hansen came down and informed them about rigging out the stabilizers. Horn and Jorgensen went to the engineroom area and started to put on their rubber boots, at which time the engine was thrown into full reverse. Horn hurriedly completed donning his boots and climbed up the ladder and looked out of the access door which was at the starboard after corner of the deck house. Horn noticed the bow of the MORMACPINE approaching from the port side, less than fifty feet distant. Simultaneously, Toft shouted back from the wheelhouse area for all hands to put on their lifejackets; Jorgensen was still below in the engineroom and was never again seen.

16. Horn ran for the stern, arriving there when the collision occurred. According to Horn's testimony the bow of the MORMACPINE sloughed into the port side of the JANE in way of the superstructure house for a distance of some two and one-half feet, then scraped along the port side of the deckhouse to the bow, crushing in or holing the section thus encompassed.



17. At the time of collision Darwin Hoel was in the galley cleaning up the breakfast dishes. The force of the collision had jammed the ladder and access to the main deck rendering it impassable. Hoel managed, after what he testified to as "quite an effort," to get out through the forward escape hatch and made his way through waist deep water to the stern portion of the JANE where he assisted Horn in launching the JANE's dory. Horn then donned a lifering which had been thrown onto the deck of the JANE from the bridge of the MORMACPINE and went into the water while Hoel remained with the dory until it capsized when the JANE sank some 5 minutes after the collision. Hoel then left the dory and swam to the same wreckage that Hansen was clinging to. Horn, wearing the lifering, drifted apart from the other two men.

18. Immediately after the collision the JANE, down by the bow, drifted back along the starboard side of the MORMACPINE. As it came abeam of the bridge of the MORMACPINE the second officer tossed a lifering down onto the stern of the fishing vessel. Captain Elliot then ordered the general alarm sounded, took bearings on the fishing vessel, and, when the JANE had passed clear of the stern, maneuvered to come around to starboard to regain contact. Lookouts were stationed at various vantage points, No. 2 motor lifeboat made ready, lowered to the rail, and manned by a designated crew. At approximately 0816 hours the MORMACPINE had returned to the collision area and had recovered Messrs. Hansen and Hoel. This was done by maneuvering the vessel to windward of the two men and picking them up via Jacob's ladder at the main deck, starboard side, forward. The No. 2 lifeboat was then lowered into the water and the third man, Alfred Horn, was picked up at approximately 0822 hours.

19. Immediately after the collision the MORMACPINE transmitted an emergency distress message on 500 kcs and Coast Guard surface and aircraft units responded from Neah Bay Lifeboat Station and Port Angeles CGAS. The MORMACPINE continued the search for the two missing men until approximately 1310 hours, when, after obtaining release from Coast Guard authorities, the vessel proceeded to Seattle, Washington, with the three rescued survivors. The Marine Board notices that the official search for Harold Toft and Per Jorgensen was secured at 1600 hours on 27 September, 1959, with negative results.

20. The radar of the MORMACPINE was under practically continuous observation by either the master or the second officer from 0720 hours until the collision. In the opinion of both officers the radar appeared to be operating normally. The radar was operated on the 8 mile range scale at all times, except when the second officer switched scales briefly for navigational reasons. In addition to the 8 mile range the radar also possesses 1.5 mile, 4.0 mile, 20.0 mile and 40.0 mile ranges. On the morning in question the master kept the radar on the 8 mile scale for observation of any vessel targets, according to his testimony, because he thought he would get more sea return on the 4 mile scale, and because he did not believe he could pick up targets any better on the 4 or 1.5 mile scales than he could on the 8 mile scale, under the existing conditions of weather and sea.

21. The rescue of the two men, Hansen and Hoel, was accomplished as follows: as the MORMACPINE returned to the scene of the collision, Murray, the lookout, reported to the bridge that he heard voices two points on the starboard side. Proceeding in that direction at dead slow, the MORMACPINE visually sighted

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the two men in the water to starboard. Heaving lines were tossed to the men and they were hauled in along side the MORMACPINE at No. 2 hatch. Murray then descended the Jacob's ladder into the water and, being alternately submerged beneath and raised above the surface of the water, assisted both men up the ladder to safety.

22. No whistle signals from the MORMACPINE were heard on board the JANE by the survivors. None of the personnel on the bridge of the MORMACPINE personally heard any whistle signals from the JANE.

23. The JANE was properly equipped with lifesaving equipment; none of the survivors nor the missing men when last seen were wearing life preservers from the JANE.

24. During the period in question the main machinery plant of the MORMACPINE was in operation with all twelve nozzles "on the block" in operation and with the remaining three sets of nozzles on the ahead turbine secured. The steam equalizing valves between the ahead and astern turbines were open, the astern guarding valve was open, and, according to the testimony of the second assistant engineer, Edward J. Hodgins, the main plant was in optimum condition for rapid maneuvering.

25. No defects or abnormalities were noted in the operation of the MORMACPINE's steering apparatus, navigational equipment, or machinery plant during the period under discussion.

26. Administrative action under the provisions of R.S. 4450, as amended, has been initiated against the master's license of Captain Elliot.

27. The Board notices that Darwin Hoel suffered injuries as a result of the collision for which he was hospitalized at the USPHS Hospital, Seattle, for approximately three weeks. The following statistical information was furnished for the missing men:

- a. Harold C. Toft was a male, caucasian, U. S. citizen, born on 14 July, 1921, social security No. 536-12-4062, a veteran of service in the U. S. Navy, and residing at 6209, 7th NW., Seattle, Washington. Next of kin were properly notified.
- b. Per B. Jorgensen was a male, caucasian, U. S. citizen, born in Norway on 14 January, 1921, social security No. 532-20-5420, not a veteran of any U. S. Armed Force, and residing at 1102 E. 146th St., Seattle, Washington. Next of kin were properly notified.
- c. Both men were reputed to be good swimmers and in good physical condition at the time of the casualty.

28. The JANE was not equipped with any type of radar reflector.

9. Although the MONROVIA was equipped with a radio telephone installed in Montreal to enable her to communicate on Channel 51 (2182 KCS) as required by the Agreement For the Promotion of Safety on the Great Lakes by Means of Radio, her ability to stand an effective listening watch was seriously impaired by a shortage of personnel who could understand or speak English sufficiently well to converse by radio telephone.

10. That the lack of a pilot familiar with the navigation of the Great Lakes materially contributed to this casualty since such a pilot would have kept the MONROVIA closer to the recommended upbound track and thus more safely separated from downbound traffic.

11. That the ROYALTON, standing downbound in Lake Huron in the vicinity of Thunder Bay, was being navigated in thick fog by the master who failed to maintain or have maintained a graphic radar plot although he had ample time to originate such a plot on the upbound vessel known to be in the vicinity of his downbound track. By this failure to plot the vessel, which later proved to be the MONROVIA, with a series of ranges and bearings and establish the closest point of approach, the ROYALTON's master did not utilize the full potential of the radar and allowed a collision pattern to develop.

12. That the ROYALTON was being navigated beyond the westerly limits of the track recommended for downbound vessels, apparently having cut the corner formed by the two legs of the recommended courses off Middle Island, and then continued to steer courses that kept her to the west of the westerly limits to the point of the collision.

13. That after the ROYALTON had established radar contact with the MONROVIA 13 miles distant fine on her starboard bow, the master initiated a series of slight course changes to the left thus keeping the MONROVIA on his starboard bow. During this entire period, the ROYALTON failed to determine whether the situation was one of crossing or meeting. By navigating in this manner, the master showed a failure to appreciate the applicability of Rules 17 and 18 to the situation and was more concerned in returning his vessel to within the limits of the recommended downbound track.

14. That the master of the ROYALTON being aware of the approach and continued presence of a vessel on his starboard bow which he knew, or should have known, from the whistle signals and radar bearings to be crossing, failed to take the necessary action to keep out of the way of that vessel as required by Rule 18 of the Pilot Rules for the Great Lakes.

15. That both the MONROVIA and the ROYALTON approached each other in an area intended to separate upbound and downbound tracks as recommended by two private agencies representing a large percentage of the shipowners and operators whose vessels ply the Great Lakes and its connecting waters. These

recommended courses, although not officially adopted or sanctioned by the United States or Canada, are given semi-official cognizance by their insertion in the U. S. Great Lakes Pilot and its Canadian counterpart. In Lake Huron, in the area of this casualty, the opposing limits of these tracks are separated by some seven miles and particularly under adverse weather conditions and periods of reduced visibility, use of the courses affords a measure of safety by minimizing the number of passing situations. There was no excuse for the ROYALTON being west of the westerly limits on the downbound track as she was equipped with navigational devices from which her position could have been fixed at anytime. The MONROVIA, on the other hand, was not so equipped, nor were her officers sufficiently familiar with the area and its recommended courses to have even properly considered proceeding under the weather conditions that prevailed upon her departure from Lake Huron Lightship. With the increase in traffic of ocean going vessels in the Great Lakes, the importance of adhering to the recommended courses by all vessels takes on added significance, but observance therewith should never supersede compliance with the Rules of the Road and regulations promulgated pursuant thereto.

16. That although there is much doubt, because of the difficulty aboard the MONROVIA in actually standing an effective listening watch on Channel 51, that telephone communications could have been established between the two vessels in time to avoid the collision, it is considered that the master of the ROYALTON could have enhanced the possibility of establishing radio contact by being more precise in his call. No vessel which does not consider herself to be on the wrong track would be likely to reply to a call such as "salt water ship upbound on the downbound course."

17. That the Coast Guard units which were ordered to the scene of the collision responded in a timely fashion but because of the dense fog which covered the area were unable to reach the scene before the MONROVIA sank.

18. That no failure of material was involved.

19. That no personnel of the Coast Guard or any other Government agency contributed to the casualty.

20. That no aids to navigation were involved.

## RECOMMENDATIONS

1. It is recommended that the Commandant examine into the applicability of the Agreement for the Promotion of Safety on the Great Lakes by Means of Radio entered into between United States and Canada insofar as it pertains to the standing of a continuous effective listening watch on Channel 51 (2182 KCS) aboard foreign vessels in waters of the United States. While it appears that foreign vessels, as well as vessels of the United States, under Article 7, Section 1(c), of this Agreement are required to stand the aforesaid watch, it also appears that the regulations promulgated by the FCC to implement its provisions apply only to United States vessels, and has, in effect, waived or exempted foreign vessels from this requirement while in United States waters. The incident under investigation by the Board clearly illustrated that a continuous effective listening watch could not have been maintained aboard the MONROVIA due to the shortage of persons aboard possessing the ability to speak and understand the English language sufficiently well to converse via radio telephone.
2. That steps be taken to remind persons in charge of the navigation of all vessels on the Great Lakes regarding the precedence which must be accorded the Pilot Rules for the Great Lakes over the course tracks recommended by the Lake Carriers Association and the Dominion Marine Corporation whenever action to follow the latter conflicts with that required by the former. While the Board believes that the degree of safety afforded vessels on the Great Lakes by the separation of the upbound and downbound courses is highly desirable, it also feels that undue reliance may inadvertently be placed upon the observance of the recommended courses. Since there are several places in the Great Lakes where the recommended courses normally bring vessels to pass starboard to starboard thus creating passing situations contrary to the applicable International, Inland, and Great Lakes Rules of the Road for vessels meeting end on, or nearly so, it is imperative that navigators on the Great Lakes fully appreciate the need for strict adherence to the Rules of the Road. It is believed that while the main reason for assigning the deep water tracks to the heavier laden downbound vessels, thus bringing about the above mentioned starboard to starboard passings, was entirely logical in the past, this reason may no longer be valid due to the fact that more and more deep draft vessels will be proceeding upbound with cargo and will also desire to seek the deeper water.
3. That all vessels of 200 gross tons or over navigating on the waters of the Great Lakes be required to have on board a pilot for those waters duly licensed by either the United States or Canada.
4. That the Commandant continue the study into the desirability of reducing the existing differences between the International and Great Lakes Rules of the Road in the interest of safe navigation on the Great Lakes.
5. That the owners of the SS MONROVIA be cited for violation of Rules 15 (33 USC 272), Rule 26 (33 USC 291) and Rule 28 (33 USC 293) of the

Pilot Rules for the Great Lakes and that the statutory penalty be imposed for the first two rules violated.

6. That the owners of the SS ROYALTON be cited for violation of Rule 18 (33 USC 283) of the Pilot Rules for the Great Lakes and that the statutory penalty be imposed.

7. That a wreck buoy be maintained to mark the SS MONROVIA until such time as it is determined that it does not constitute an obstruction to navigation.

8. That no further action be taken and that the case be closed except that in the event the vessel is raised that the Coast Guard examine the vessel in the attempt to more exactly determine the cause of the progressive flooding which resulted in the vessel's sinking.

/s/ C. E. Leising

C. E. LEISING  
Commander, U.S. Coast Guard, Chairman

/s/ Benjamin Malloch

BENJAMIN MALLOCH  
Commander, U.S. Coast Guard, Member

/s/ F. B. Thatcher

F. B. THATCHER  
Commander, U.S. Coast Guard, Member

/s/ A. G. Jones

A. G. JONES  
Lieutenant Commander, U.S. Coast Guard,  
Recorder

The Board then at 5:30 p.m., adjourned to await the action by the Convening Authority.

/s/ C. E. Leising

C. E. LEISING  
Commander, U.S. Coast Guard, Chairman

/s/ A. G. Jones

A. G. JONES  
Lieutenant Commander, U.S. Coast Guard,  
Recorder