MARINE CASUALTY REPORT

USCG WHITE ALDER-SS HELENA (TAIWAN) COLLISION IN THE MISSISSIPPI RIVER ON 7 DECEMBER 1968

U.S. COAST GUARD MARINE BOARD of INVESTIGATION REPORT and COMMANDANT'S ACTION

ACTION BY
NATIONAL TRANSPORTATION SAFETY BOARD

DEPARTMENT OF TRANSPORTATION WASHINGTON D.C. 20591

USCGC WHITE ALDER - SS HELENA (TAIWAN) COLLISION IN THE MISSISSIPPI RIVER ON 7 DECEMBER 1968

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NATIONAL TRANSPORTATION SAFETY BOARD DEPARTMENT OF TRANSPORTATION

WASHINGTON, D.C. 20591

COLLISION BETWEEN USCG WHITE ALDER AND SS HELENA (TAIWAN) ON THE MISSISSIPPI RIVER DECEMBER 7, 1968

ACTION BY NATIONAL TRANSPORTATION SAFETY BOARD

This casualty was investigated by a U.S. Coast Guard Marine Board of Investigation convened at New Orleans, Louisiana, on December 10, 1968. The National Transportation Safety Board requested additional information after reviewing the Coast Guard report of this Marine Board. The Coast Guard reconvened a Marine Board of Investigation at New Orleans on August 25, 1970, pursuant to the Safety Board's request. Representatives of the National Transportation Safety Board attended both Marine Boards of Investigation as observers. The Safety Board has reviewed the record of the investigation and has considered those facts which are pertinent to the Board's statutory responsibility to determine the cause or probable cause of the casualty, to evaluate the effectiveness of this investigation, and to make recommendations to prevent recurrence of such a casualty.

SYNOPSIS

The upbound SS HELENA (TAIWAN) and downbound CGC WHITE ALDER collided at mile 195.6 Above Head of Passes in the Mississippi River near Bayou Goula, Louisiana, at 1829 c.s.t. on December 7, 1968. As a result of this collision, the CGC WHITE ALDER (a buoy tender) was overrun and sank within approximately a minute of the collision.

Seventeen of the 20 crewmembers of the WHITE ALDER were trapped in the sunken vessel, and three crewmembers survived. Two bodies were recovered from the pilothouse by diving operations. The remaining victims are still missing. The hull has settled below the river bottom; salvage operations were not successful. Damage to the SS HELENA was minor.

The National Transportation Safety Board determines that the probable cause of this casualty was the WHITE ALDER's abrupt change of course across the bow of the HELENA for unknown reasons. Also contributing to this collision were: the failure of the pilot of the HELENA to sound the danger signal as soon as uncertainty developed concerning the other vessel's intentions; the failure of the officer in charge of the WHITE ALDER to sound a

danger signal, followed by a proposed passing signal on the whistle, when the vessels were within one-half of a mile of each other; the failure of the pilot of the HELENA to slacken speed, stop and reverse when risk of collision became apparent; and the failure of the commanding officer of the WHITE ALDER to reduce speed, stop, and reverse prior to the collision. Other causal factors were: the failure of the WHITE ALDER to respond to the bridge-to-bridge radiotelephone communications initiated by the pilot of the HELENA; failure of the WHITE ALDER to respond to the HELENA's proposed one-blast passing whistle signal; the failure of both vessels' bridge personnel to make proper use of the available radar information; the sharp bend in the river at Bayou Goula Towhead; and the tendency for the current and wind to push the HELENA's bow to her port in making the turn.

The heavy loss of life on the WHITE ALDER was due to her being overrun by the HELENA, and rapid sinking, trapping the Coast Guardsmen inside the hull.

SUMMARY OF FACTS

The upbound SS HELENA (TAIWAN) and downbound CGC WHITE ALDER collided at mile 195.6 Above Head of Passes (AHP) in the Mississippi River about 1829 c.s.t. on December 7, 1968. This collision occurred on a clear, dark night in the sharp turn of Bayou Goula Bend. The channel is about 550 yards wide at the place of collision. An enlarged section of Map No. 48 from the U.S. Army Corps of Engineers Flood Control and Navigation Maps of the Mississippi River is attached for reference (see Attachment A). It shows the constraints of navigation and point of collision. The wind at the time of collision was approximately 20 m.p.h. from the northeast, the current about 3 m.p.h. downriver, and the water temperature was 48° F.

The HELENA was under the advisory navigational control of a licensed pilot, and a third mate, a helmsman, and a standby helmsman, serving as lookout, were on watch on the bridge. No bow lookout was posted. Visibility forward of the bridge was reduced due to the fact that the bow was riding very high out of the water. Her draft was 7 feet forward and 21 feet aft. The pilot experienced no language problems in giving operational orders concerning course, speed, etc. The HELENA was making full speed which, against the current, gave a speed of about 14.5 m.p.h. over the river bottom. This vessel was equipped with two radar sets, one of which was on standby, and the other was not in operation. Her navigation lights were reported to be operating properly. Under normal operating conditions, it takes about 40 seconds to stop the propulsion shaft from full ahead after the order to stop is acknowledged.

As the HELENA approached White Castle Landing about 1820 c.s.t., her pilot broadcast on Channel 13 (156.65 MHz) that this vessel was upbound and was approaching Bayou Goula Bend. This custom is used in such areas of the river to check for downbound traffic and to alert such traffic to the presence of the calling vessel. No reply was received on the HELENA.

The normal channel line for making this turn favors the left bank, upbound off White Castle Landing, then runs closer to Bayou Goula Towhead at mile 195 AHP. The Chinese crewmen on the bridge testified that varying amounts of right rudder were used by the pilot in making this turn. The pilot exercised his rights under the provisions of the Fifth Amendment, and refused to testify at the Marine Board's hearing. It is noted that a sandbar extends

off the south end of Bayou Goula Towhead, and upbound tows favor the left ascending bank in this vicinity. There are very few background shore lights along the river bank in this area.

About 1822 c.s.t., bridge personnel on the HELENA reported sighting a red light with a white light a little higher and to the left of the red light, bearing on the HELENA's starboard bow. These lights, which later were identified as the WHITE ALDER's navigation lights, became visible to the HELENA's personnel when they cleared the western edge of the trees on Bayou Goula Towhead. The HELENA was southeast of Eureka Light at the time of sighting the WHITE ALDER's lights.

The pilot of the HELENA apparently construed the meeting situation as a port to port passing. Therefore, at 1824, he sounded one long blast on the whistle. This action was in accordance with Rule 18(b) of the Rules of the Road for Western Rivers. He also attempted to raise the downbound vessel by radiotelephone on Channel 13, but received no reply to either signal. The full speed of the HELENA was maintained.

As the HELENA swung right, the red and white lights of the downbound vessel crossed the bow of the HELENA, opening to 10° to 15° on her port bow. Bridge personnel on the HELENA considered that this was a routine port to port passing situation with ample room to clear the other vessel. However, at 1827, they observed the green light and one white light of the downbound vessel, which then appeared to be crossing the HELENA's bow from her port to starboard. When the WHITE ALDER became obscured by the high bow of the HELENA, the pilot stepped to the wing of the bridge to attempt to relocate the other vessel. The pilot heard the WHITE ALDER's danger signal and ordered the engines stopped at 1828. A few seconds later, the HELENA's bow struck the starboard side of the WHITE ALDER about two-thirds of the way aft. Personnel on board the HELENA heard the sound of metal scraping on both sides, and saw objects passing down each side. The pilot ordered full astern at 1830, and stop at 1831. The bow of the WHITE ALDER remained above the water for about a minute, then sank. The collision occurred at about mile 195.6 AHP, slightly east of mid-channel. The HELENA proceeded to anchor a few hundred yards above the scene of collision. The pilot reported the collision and requested rescue assistance, using his portable radio. Minor damage to the bow of the HELENA resulted from the collision.

The WHITE ALDER was returning to New Orleans after having retrieved 19 low-water buoys upriver from the point of collision. Her commanding officer, CWO Brown, and Seaman Jacks were on watch on the bridge. Apparently, no other lookout was on duty. The WHITE ALDER was equipped with side lights and a twenty-point mast headlight, but not an after range light. She was equipped with radar, which normally was kept in operation while the vessel was underway, and was able to communicate on Channel 13, which was routinely guarded. The commanding officer's policy was to keep the lee bridge door open underway. The divers reported that the starboard door, which would have been the lee door at the time of the casualty, was open.

Full speed on the WHITE ALDER was 9.2 knots. She was expected back at the Coast Guard base at 0900 on December 8th. The distance from the point of collision to the base is about 100 statute miles. The course and speed of the WHITE ALDER at the time of the collision are not known, as all the bridge and engineroom personnel on watch were lost with the vessel. The divers reported on December 14th that the rudder angle indicator showed

about 10° right rudder, and the pilothouse engine control levers for both engines were positioned for one-third speed ahead.

Three members of the WHITE ALDER's crew of 20 survived the collision. The only whistle signal they heard was the buoy tender's danger signal sounded a few seconds before the impact. The WHITE ALDER was struck on the starboard side, listed to port, quickly flooded, and sank within a minute of the collision. None of the three survivors noticed any radical course or speed change just prior to the sounding of the danger signal. These survivors managed to escape from the sinking vessel and clung to buoys until rescued, about a half hour later.

The remaining 17 crewmembers were apparently trapped in the WHITE ALDER. Divers recovered the bodies of CWO Brown and Seaman Jacks. Salvage operations were hampered by the strong current, severe weather, poor underwater visibility, and the rapid settling of the wreck in the sands of the river bottom. No other bodies of the victims have been recovered.

ANALYSIS

Determination of the actual cause of this collision is not possible due to the loss of all personnel on watch on the WHITE ALDER. Moreover, the declining of the pilot of the HELENA to answer questions concerning the collision further limits available evidence. The development of facts by the Marine Board of Investigation was also influenced by the decision that the U.S. Government was not a party in interest. The Coast Guard did not designate itself as a party in interest. The investigation was also affected by the fact that the Coast Guard was investigating a case involving one of its own vessels. It is difficult for an investigation to be conducted adequately and effectively when one of the parties involved in a collision itself conducts the proceedings. This was demonstrated by the Marine Board's initial refusal to call witnesses who were familiar with standard operating procedures of the WHITE ALDER on the apparent ground that they were not involved at the time and place of the collision. This type of evidence of existing procedures is routinely used in accident investigations.

The Safety Board has noted in previous cases that the Coast Guard was investigating casualties in which the evaluation of important Coast Guard functions, other than operation of its own vessels, was involved. For example, in the foundering of the SS PANOCEANIC FAITH, the search and rescue operations, communications, inspection, lifesaving equipment regulations, and lack of emergency signaling equipment were all Coast Guard responsibilities. This factor has been taken into account in Recommendation No. 2.

Although the bodies of CWO Brown and Seaman Jacks were recovered, no autopsies were performed to determine the cause of death and the physical condition of the men at the time of their deaths. Such a detailed examination might have revealed some physical incapacity which could have accounted for some of the unexplained actions which occurred in this casualty-specifically, the apparent lack of any response to radio calls, lights, or whistle signals, and the apparent lack of evasive maneuvers. An autopsy can be an effective investigative tool for revealing unsuspected causes of accidents. This omission could not be corrected by the time the case was received from the Coast Guard.

The actions of watch personnel on the HELENA are fairly well established by the records of investigation. However, the actions of bridge personnel on the WHITE ALDER prior to the collision are only partially developed. Some facts can be determined from further analysis of the available evidence which suggests several possible causal factors.

As the HELENA approached Bayou Goula Bend, the northeast wind tended to push her high bow to her left. This tendency was augmented by the effect of the current on her starboard bow. There is a sandbar extending south from Bayou Goula Towhead. The photographs of this area in the exhibits show an upbound tow favoring the left ascending (west) bank. Moreover, the line on the attached chart shows the normal trackline favoring this side. It is logical to conclude that she was favoring the left bank as she approached the bend at mile 194 AHP. At 1820, when she sighted the WHITE ALDER's red and white light, the HELENA should have been visible to the bridge personnel on the WHITE ALDER. The HELENA's target aspect would show her green side light and two white range lights, indicating she was heading left of the line of sight to the WHITE ALDER. The commanding officer of the WHITE ALDER might then have interpreted the HELENA's heading as indicating a starboard to starboard meeting. As the HELENA came right in Bayou Goula Bend, her course changes should have been discernible by the closing of her range lights. The WHITE ALDER did not have range lights, hence her course changes were made more difficult to detect visually by personnel on watch on the HELENA.

The bridge personnel on the HELENA were not concerned over the meeting, assuming a port to port passing. They proposed such a passing by sounding one long blast of the whistle. It was not until they saw the green side light of the WHITE ALDER that they recognized the danger of collision. The pilot was unable to raise the WHITE ALDER on Channel 13. Article 24 of the Western River Rules requires the sounding of the danger signal, slowing or stopping until agreement for a safe passing is achieved. The pilot of the HELENA maintained full speed until a few seconds before the collision. If he had slowed or backed as soon as uncertainty developed, the collision probably would have been averted.

The actions taken by the WHITE ALDER personnel are difficult to analyze. Working back from the point of collision, which is established fairly accurately, for the WHITE ALDER to have been seen by the HELENA personnel at 1822, the buoy tender must have been in the vicinity of mile 196 and favoring the west bank. The normal practice of CWO Brown was to favor the right side of the channel, under similar circumstances. The WHITE ALDER's speed from this probable position at 1822 until the collision at 1829 would have been about 4 m.p.h., plus the 3-m.p.h. current. This would correspond to the position of the engine order controls at one-third ahead. Also, a speed of 7 m.p.h. over the ground would have enabled her to meet her 0900 c.s.t. estimated time of arrival at the Coast Guard Base, New Orleans, the next morning. Apparently, neither CWO Brown nor Seaman Jacks heard the HELENA's one-blast signal at a distance of about 2 miles. If only the lee door of the WHITE ALDER's bridge was open, it is doubtful that the signal was audible, due to the WHITE ALDER's being upwind and the noise level of her diesel engines. It also appears that the bridge personnel did not hear the radio transmissions on Channel 13, her VHF radio was inoperative, or Channel 13 was not being monitored.

Testimony of the WHITE ALDER survivors indicates that the only whistle signal initiated by the buoy tender was the danger signal just seconds before the collision. These witnesses did not notice any appreciable course or speed change prior to the collision. They

did not hear any whistle signals from the HELENA. It would appear that the WHITE ALDER could have taken evasive action. She was more maneuverable than the much larger HELENA, and had direct pilothouse controls and twin screws. If the one-third ahead speed and 10° right rudder conditions found by the divers were in effect at the time of collision, no drastic efforts were made to avoid the collision. This would lead to the conclusion that the commanding officer of the WHITE ALDER did not recognize that collision was imminent until too late to take corrective actions.

There is no evidence to explain the WHITE ALDER's crossing in front of the HELENA. Several possibilities suggest hypothetical explanations. A steering failure or engine casualty might have caused her to cross the HELENA's track. However, in the event of a steering casualty, it would seem logical to maneuver, using the twin screws to compensate. In the event of an engine failure, the rudder would be put hard over to compensate for the twisting effect of power on only one shaft.

It is possible and likely that the captain of the WHITE ALDER did not realize that a collision was close at hand. He may not have seen the HELENA until just before they collided. However, the running lights on the HELENA were reported to be operating normally, and there were no known bright background lights along the bank to interfere with identifying the HELENA's lights. There is a remote possibility that he confused the HELENA's green starboard side light with the occulting green navigation light at Bayou Goula Bend. The WHITE ALDER operated only infrequently in this part of the river. It is also possible that the bridge personnel on the buoy tender were not adequately attentive, or that some distraction or incident interfered with maintaining an alert watch. However, CWO Brown was an experienced commanding officer, and would be expected to maintain an alert watch unless something abnormal occurred, particularly when approaching such a sharp turn in the river. It is possible that the WHITE ALDER's watch lost track of their position, and started the turn too soon. The aids to navigation should have precluded this, but CWO Brown might have mistaken their identity. Another possibility was that a dizzy spell, seizure, or momentary blackout affected CWO Brown's actions just prior to the casualty. Nothing in his health records substantiates this hypothesis.

The fair wind and following current would also have affected the WHITE ALDER's maneuvering the sharp turn to her left. To compensate for the set downstream, the buoy tender would have had to come left earlier than she would under no wind or current conditions. The WHITE ALDER would tend to be set towards the west side of the bend, and probably experienced some crabbing effect in making her turn. This effect would be more noticeable at slow speed, as apparently was the case. The effect of the wind would be less on the WHITE ALDER than on the HELENA, due to the WHITE ALDER's having less sail area above the waterline. However, there is a possibility that the wind and current caused both vessels to favor the west side of the bend. The commanding officer of the WHITE ALDER might not have anticipated his vessel's set, or the effect of the wind and current on the HELENA. With both vessels set over on the west side, it is possible that the WHITE ALDER came left, as the commanding officer concluded that there was inadequate room for a port to port passage. He might not have taken this action early enough, or used enough speed or rudder to clear the HELENA.

None of these possible causes of the WHITE ALDER's actions can be substantiated by the record. However, the most probable of the several hypotheses appears to be that the

commanding officer did not realize that collision was imminent until a few seconds before the casualty. No conclusion is apparent as to whether the HELENA's movements were observed by bridge personnel on the WHITE ALDER. The next most plausible explanation is that CWO Brown misinterpreted the passing situation, and considered it to be a starboard to starboard passing. He could have assumed this if he did not hear the HELENA's one-whistle signal or VHF voice radio transmission.

There were a number of possible causal factors which resulted in this collision. A brief summary of these factors suggests measures necessary to prevent recurrence of such a casualty.

Neither vessel took timely actions to avoid collision. Establishment of voice radio communications between the personnel on the bridges of the two vessels probably would have resulted in agreement for a safe passing. Proper evaluation of radar information available to personnel on both vessels would have shown the positions of these vessels with respect to which side of the channel the other vessel was favoring. If the WHITE ALDER had been fitted with an after range light, visual detection of her course changes would have been facilitated. The sharp bend in the river and relatively narrow channel at mile 195 AHP also contributed to the casualty.

The effect of the northeast wind and 3-m.p.h. current was a contributing factor. The prescribed rules for passing do not clearly provide tracklines for upbound and downbound traffic. The system requires exchange of information by whistle signals and visual evaluation of the meeting situation. In this case, the system failed to achieve a safe passage, in spite of the fact that experienced personnel were at the conn of both vessels. Coupled with the whistle, a visual signal such as the amber light required by 33 CFR 95.21 might have alerted bridge personnel on the WHITE ALDER of the HELENA's proposed one-blast passing signal. Neither the WHITE ALDER nor the HELENA was equipped or required to be fitted with an amber whistle light, under this rule, which is optional below mile 237 AHP on the Mississippi River. There was no positive way to know whether whistle signals have been heard by another vessel, unless a reply is received. The Safety Board has previously noted this problem in its final action on the Marine Board of Investigation of the collision involving the SS UNION FAITH and M/V WARREN J. DOUCET, released on December 22, 1970. A recommendation was made in this report to the Coast Guard to consider specification of minimum performance standards for ships' whistles.

The loss of 17 out of 20 crewmembers on board the WHITE ALDER was due to the buoy tender's being overrun by the HELENA, and rapid flooding of the smaller vessel. The HELENA's shallow draft forward contributed to her riding up and over the WHITE ALDER. Scrape marks on both sides of the bow of the HELENA indicate that she pushed the buoy tender under her bow in a very short distance and time. It appears that the angle of impact was between 60° and 90°, or more evidence of scraping would have been found on one side of the HELENA. A smaller angle would have resulted in the WHITE ALDER's glancing off on one side. The rapid flooding is verified by the testimony of the three survivors. It is probable that the other crewmembers were trapped inside the buoy tender. Except for CWO Brown and Seaman Jacks, they are still missing and presumed dead.

PROBABLE CAUSE

The National Transportation Safety Board determines that the probable cause of this casualty was the WHITE ALDER's abrupt change of course across the bow of the HELENA

for unknown reasons. Also contributing to this collision were: the failure of the pilot of the HELENA to sound the danger signal as soon as uncertainty developed concerning the other vessel's intentions; the failure of the officer in charge of the WHITE ALDER to sound a danger signal, followed by a proposed passing signal on the whistle, when the vessels were within one-half of a mile of each other; the failure of the pilot of the HELENA to slacken speed, stop, and reverse when risk of collision became apparent; and the failure of the commanding officer of the WHITE ALDER to reduce speed, stop, and reverse prior to the collision. Other causal factors were: the failure of the WHITE ALDER to respond to the bridge-to-bridge radiotelephone communications initiated by the pilot of the HELENA; the failure of the WHITE ALDER to respond to the HELENA's proposed one-blast passing whistle signal; the failure of both vessels' bridge personnel to make proper use of the available radar information; the sharp bend in the river at Bayou Goula Towhead; and the tendency for the current and wind to push the HELENA's bow to her port in making the turn.

The heavy loss of life on the WHITE ALDER was due to her being overrun by the HELENA, and rapid sinking, trapping the Coast Guardsmen inside the hull.

RECOMMENDATIONS

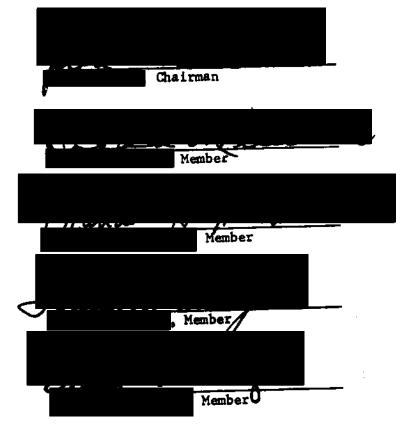
The Safety Board concurs in Recommendation No. 3 of the Marine Board of Investigation concerning the need for bridge-to-bridge radiotelephone communications. The Board testified before the House Merchant Marine and Fisheries Committee in support of H.R. 6971, the Vessel Bridge-to-Bridge Radiotelephone Bill, which was passed by the House of Representatives during the 91st Congress. The Board also testified before the Senate Commerce Committee on March 12, 1971, in favor of S. 699, a similar bill.

The Safety Board recommends that the Coast Guard:

- 1. Take appropriate action to insure that its own vessels guard all of the appropriate operational radio frequencies for the areas of operation.
- 2. Consider, in its current study of Marine Boards of Investigation, changing the procedures used in investigations of its own accident-involved activities.
- 3. Study the effectiveness of navigation lights in depicting the directional aspect of meeting vessels, including the need for range lights on smaller vessels.
- 4. Study the need for supplementing ships' whistle signals with visual or electric indicating devices, such as the amber light required by 33 CFR 95.21.
- 5. Initiate action to obtain post-mortem examinations, when legally possible, in its investigation of those cases in which it is possible that the physical condition, possible death before the casualty, or possible physical defect of persons, could have been involved in the casualty.

BY THE NATIONAL TRANSPORTATION SAFETY BOARD:

Adopted this 19th day of May 1971:



CORPS OF ENGINEERS RANGE FROM Belle Ch



DEPARTMENT OF TRANSPORTATION UNITED STATES COAST GUARD

Address reply to:
COMMANDANT (MVI-3)
U.S. COAST GUARD
WASHINGTON, D.C.
20591

5943/HELENA -USCGC WHITE ALDER A-8 Bd 3 DEC 1969

Commandant's Action

on

The Marine Board of Investigation convened to inquire into the circumstances surrounding the collision between the SS HELENA (Taiwan) and USCGC WHITE ALDER in the Mississippi River on 7 December 1968, with loss of life

1. The record of the Marine Board of Investigation convened to investigate subject casualty has been reviewed and the record, including the Findings of Fact, Conclusions and Recommendations, is approved subject to the following comments and the final determination of the cause by the National Transportation Safety Board.

SYNOPSIS OF FINDINGS OF MARINE BOARD OF INVESTIGATION

- 1. The upbound Taiwan freighter HELENA and the downbound USCGC WHITE ALDER coilided during the early evening of 7 December 1968 in the Mississippi River at about Mile 195.6 above Head of Passes. As a result of the casualty the USCGC WHITE ALDER sank. Of a total crew of twenty on the WHITE ALDER, two crew members are known to be dead, fifteen are missing and presumed to be dead, and three were injured. The SS HELENA sustained minor hull damage.
- The collision occurred in darkness with otherwise good visibility and clear weather. The river current was about three miles per hour.
- 3. As the HELENA, with a licensed State Pilot on her bridge, approached Bayou Goula Bend at 1814, a slow swing to the right was started to negotiate the bend of approximately 180° in the river. The vessel was making about 14 knots over the bottom. A red light and a higher white light of a vessel later identified as the WHITE ALDER were seen at 1822 about 15° on the starboard bow. One long blast of the whistle was sounded by the HELENA. When no answer was received, the pilot attempted to

contact the vessel with his portable transceiver on 156.65 MHz, but without success. After 4 or 5 minutes the lights were observed to cross the HELENA's bow to a point approximately 10° on the port bow. At that time, approximately 1827, the running lights had changed from red to green. A four (4) blast danger whistle signal was heard from the vessel under observation. The pilot ordered the HELENA's engine stopped. The vessels collided at 1829 while in mid-channel at Mile 195.6 above Head of Passes.

4. None of the three survivors from the USCGC WHITE ALDER had been on the bridge before or at the time of the collision.

RIMARKS CONCERNING CONCLUSIONS AND RECOMMENDATIONS

- 1. Conclusion No. 1 of the Marine Board of Investigation concerning the failure of the two vessels to agree on the method of passing is considered to be the only logically ascertainable cause of the casualty in view of the inability to more fully develop and determine the maneuvers and intentions of the vessels involved due to the sharp bend and the nature of the current in the channel. The one-sided nature of the investigation, because of the death of the navigational personnel, did not reveal the courses, engine speeds or intentions of the WHITE ALDER prior to the collision. Nevertheless, it is significant that in this case the testimony of all available witnesses from a public vessel was made available. This has not always been the case where public vessels involved in a casualty were not operated by the agency responsible for conducting the investigation.
- 2. The Commandant concurs with that part of Conclusion No. 2 stating that there is evidence of negligence by the persons in charge of the navigation of the vessels involved. All persons concerned with the navigation on the WHITE ALDER are deceased. Since no charges against the license of the pilot of the SS HELEMA were preferred under the revocation and suspension provisions of RS 4450, as amended before a hearing examiner, and there was no recommendation that the case be referred to the U.S. Attorney for criminal action, the recommendation that the report of investigation be forwarded to the American Pilots' Association for action against the state license of the pilot is considered appropriate.
- 3. This Action on the report of the Marine Board of Investigation does not encompass or extend to the recommendation that a Report of Violation be forwarded to the Commander, Eighth Coast Guard District in connection with the evidence of violations of Rules of the Road by the pilot of the SS HELENA. The recommended appropriate action under the administrative penalty provisions is a separate proceeding within the cognizance of the district commander with provisions for appeal to the Commandant only if the alleged offender is cited.

4. The Coast Guard will continue to support legislation to require bridge-to-bridge radiotelephone communication as recommended by the Marine Board of Investigation. A Bill of this nature is now pending in Congress. The multi-channel radio equipment of the WHITE ALDER (and all other Coast Guard vessels 65 ft. in length and above) included capabilities for receiving and transmitting on the frequencies presently used for navigational purposes by many vessels in the region where the casualty occurred, i.e. 2738 kHz (towing vessels), 156.65 MHz (pilots), and 156.8 MHz (distress and calling frequency).

W. J. SICTH
Admiral, U. S. Chara Guard
Consmandant



DEPARTMENT OF TRANSPORTATION UNITED STATES COAST GUARD

as reply to:

Chairman, Marine Board of Investigation

401 Customhouse

New Orleans, La. 70130

5943/WHITE ALDER/HELENA Marine Board of Investigation 14 April 1969

Chairman, Marine Board of Investigation From:

Commandant, Coast Guard (MVI) To:

Subj: SS HELENA (Taiwan) and CGC WHITE ALDER (WLM-541); collision,

Mississippi River, 7 December 1968, with loss of life

Findings of Fact:

1. The upbound Taiwan freighter HELENA and the downbound USCGC WHITE ALDER (WLM 541) collided at 1829 CST, 7 December 1968, at approximately Mile 195.6 above Head of Passes in the Mississippi River. The CGC WHITE ALDER sank almost immediately with two (2) crew members known to be dead, fifteen (15) missing, and three (3) injured, out of a crew of twenty (20) persons. There were no injuries or loss of life aboard the SS HELENA, which suffered only minor damages.

Vessel Data:

HELENA Name: No. 130 Number:

Republic of China Nationality: Keelung, Taiwan Home Port:

Freight (Ex U. S. Victory Service:

Ship) 7648

Gross Tons: Net Tons: N. A. 455104" Length: 62'0" Breadth:

Fwd 7'04" - Aft 21'0" Draft:

Steam Propulsion: 8500 HP Horsepower:

1944 Year Built: Sincere Navigation Corp. Owners:

Room 602, No. 96 Chung-Shan Rd.

KeeLung, Taiwan Captain

Agent: Formosa Maritime Corp.

> Room 1509 32 Broadway

New York, N. Y. 10004

China Corporation Register Safety Equipof Shipping No. 5-68-182 ment Certificate:

Expires 7 February 1969

WHITE ALDER WLM 541

United States of America New Orleans, Louisiana

Buoy Tender

N. A. N. A. 1321 301911

Fwd 7'2½" - Aft 7'6" (Est.)

Motor (Diesel) 600 HP Twin Screw

1943

U. S. Coast Guard Washington, D. C.

District Commander

Eighth Coast Guard District

U. S. Customhouse

New Orleans, La. 70130

N. A.

Safety Construction Certificate:

China Corporation Register of Shipping No. 5-68-177 Expires 7 February 1969

N.A.

International Load Line

Certificate:

China Corporation Register of Shipping No. 5-68-175 Expires 7 February 1969

N.A.

Master:



N.A.

License:

Master, Class B Republic of China

Pilot:

Harold A. Rowbatham

N.A.

CG License:

Issue 1-1 N.A. Serial No. 1st Class Pilot, Steam and Motor Vessels, any gross tons, Mississippi River from Huey P. Long Bridge, La., to Cut-Off Light, La., and Huey P. Long Bridge, La., to the Baton Rouge, La., Railroad and Highway Bridge, Louisiana

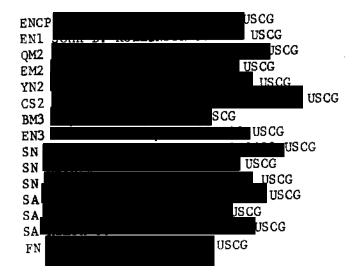
N.A.

MM Document:

Persons known to be dead: 3.

> CWO-3 Samuel C. BROWN, Jr. 28562 USCG SN Roger R. JACKS 368567 USCG

Persons missing:



5. Survivors of the WHITE ALDER:

BM2	2 USC	G
FN		US CG
SA	Dawi Chief Of Landson	USCO

- 6. The weather at the time of the casualty was clear with north to northeasterly winds at about twenty (20) miles per hour. Air temperature was 45 degrees Fahrenheit, water temperature 52 degrees Fahrenheit, and barometric pressure 30.37 inches. The current velocity was between 2.6 and 3.7 miles per hour and the sun set at 1705 CST. It was fully dark at approximately 1800 CST.
- 7. The HELENA was equipped with two (2) radars, one of which was inoperable. The other was maintained in a stand-by mode and infrequently checked by the mate on watch. Pilot Rowbatham did not use the radar at all.
- 8. The HELENA, bound from the Panama Canal to Baton Rouge, Louisiana, arrived at Southwest Pass of the Mississippi River early on the morning of 7 December 1968. At about 1130 CST near Mile 91 AHP (Above Head of Passes), Harold A. Rowbatham, a member of the New Orleans-Baton Rouge Pilots' Association, relieved the lower river pilot and assumed the conn of the vessel. The members of the HELENA's crew were Chinese residents of Taiwan. Of those connected with the navigation of the vessel, only the master spoke and understood any English beyond simple words and phrases directly pertaining to the navigation and handling of the ship. Pilot Rowbatham, however, had no difficulties in having his orders and wishes properly carried out. The HELENA continued up the river at various maneuvering speeds as required to a maximum of seventy-two (72) revolutions per minute on the propeller shaft, which gave the ship a speed of fourteen (14) miles per hour over the bottom against the three (3) miles per hour current.
- 9. Pilot Rowbatham carried a portable transceiver tuned to 156.65 MHZ. This frequency is used for bridge-to-bridge communication between nearby vessels and is commonly referred to as "Channel 13." Using this device, he communicated with the M/V BETTY WOODS and tow at about 1230 CST and again at 1730 CST with the M/V GIRLIE KNIGHT. At about 1730 CST, the HELENA's running lights were turned on and all but the stern and range lights visually sighted by both the helmsman and the lookout. The navigation light indicator panel showed all lights to be burning properly.
- 10. At about 1814 CST, the HELENA was in the vicinity of Mile 192 AHP, just below Bayou Goula Bend. This portion of the river, between Mile 192 and 197 AHP, turns approximately 180 degrees to the right for an upbound vessel and between Mile 194 and 196 AHP, there is an

island known as Bayou Goula Towhead. The bridge watch at this time . Helmsman consisted of Pilot Rowbatham, Third Mate . The ship entered the bend and Lookout at full see speed (72 RPM), still making fourteen (14) miles per hour over the bottom. Right rudder was maintained through most of the bend to keep the vessel in an easy swing. The wheelhouse door on the port (lee) side was open, the starboard door was closed, as were all portholes and windows. At about 1819, the vessel was at Mile 193 AHP. At about 1822, a red light, with a white light over, presumed to be a vessel's running light, was sighted approximately 15 degrees on the starboard bow. The pilot sounded one (1) long blast to which no answer was received. He then attempted to raise the vessel with his portable transceiver, but without success. The lights were kept under routine surveillance for the next four (4) or five (5) minutes, and were observed to cross the HELENA's bow to a point approximately 10 degrees on the port bow. At approximately 1827, the lights were again taken under observation, and it was noted that the bearing was veering to the right, and that the red light had changed to green. No one on the bridge had the lights under observation during the period of change from red to green. This change was reported to the pilot by the Third Mate, who then stood by the engine telegraph while the pilot went out on the port bridge wing. A four (4) whistle signal was heard from the vessel showing the green light, and directly thereafter at 1828, the pilot ordered the engines, which were still turning between 70-72 RPM, to be stopped. This order was carried out by the Third Mate, and at 1829, approximately in mid-channel at Mile 195.6 AHP, the vessels collided. The HELENA's engine was put full astern at 1830 and then variously maneuvered as required to bring the HELENA to anchor at 1837 on the left descending side of the river at about Mile 195.7 AHP, approximately 300 feet from the area of the collision. Immediately after the impact, the master of the HELENA ran from his quarters to the bridge and took over control of the vessel. Spotlights were manned from the port and starboard sides of the flying bridge and over the port quarter a brief glimpse was had of the other vessel's bow. This disappeared and no other debris or persons were sighted. An attempt was made to launch the HELENA's motor lifeboat to search for survivors, but without success, due to the engine not being ready. After about fifteen (15) minutes the boat was secured, since by that time other vessels had arrived on the scene and were searching. The pilot advised his office in Baton Rouge of the collision and requested that they advise the Coast Guard.

11. The CGC WHITE ALDER (WIM 541) departed her berth at the Inner Harbor Navigation Canal moorings in New Orleans at 1834 CST on 6 December 1968 in order to retrieve a number of low water buoys in the Mississippi River, located between New Orleans and Red Eye Crossing (Mile 224 AHP). By 1600 on 7 December 1968, this mission was completed and two (2) 717 LR buoys, one (1) 620 LR buoy, and nineteen (19)

unlighted buoys had been picked up and stowed aboard with an undetermined amount of sinkers. At 1625, the vessel notified Base New Orleans that they were enroute to the New Orleans moorings with an ETA of 0900 on 8 December 1968.

12. At the time of the collision, the bridge watch was composed and the Helmsman. SN of the Commanding Officer, CWO The engineroom watch consisted of EN3 was in his BM2 and EM2 bunk, located in the crew berthing area on the port side of the main deck about amidships. He heard a danger signal sounded on the WHITE ALDER's whistle, followed almost immediately by the collision. The impact tore his bunk from its fastenings and sent it hurtling forward while knocking him to the deck. The vessel took a heavy port list and the compartment filled rapidly with was able to fill his lungs with air and open the door to the forward passageway. He struggled clear of the ship and surfaced. He was facing downstream, saw two (2) floating buoys, heard voices, turned and looked upstream, where he saw a ship that appeared to be 350 to 400 yards upstream from him on the right descending bank. He then swam downstream to a buoy which had floated clear from the WHITE ALDER, climbed aboard and was shortly and SA joined by FN

FN Kopowski was sitting in the mess deck, located on the star-board side of the main deck, at the time of the collision. He heard the WHITE ALDER's danger signal and started to get up when the ship was struck. The athwartship bulkhead at the forward end of the mess deck collapsed aft, the lights went out, and the compartment flooded.

was knocked to the deck from where he struggled clear of the ship to the surface. He then swam to a nearby buoy, and was assisted aboard by

was heating dishwashing water in the galley on the starboard after side of the main deck at the time of the collision. He heard four (4) blasts from the WHITE ALDER's whistle and some men shouting, "Get off the ship!" He saw CS2 and EN1 running from the mess deck toward the galley door leading out to the stern when the collision occurred. saw these men fall to the deck near the door, but he was able to stay on his feet by holding on to the sink. The lights went out following the impact and the water rushed into the space, knocking him about until he was completely disoriented. Finding an air pocket, he was able to fill his lungs and start swimming, surfacing adjacent to a ring buoy approximately in the middle of the river. He grabbed the buoy, looked up-river and saw the WHITE ALDER's bow extending about eight (8) feet out of the water. In a very short time, he saw the bow sink and then noticed a large ship farther up the river. He then joined the other two survivors on the buoy where they heard the HELENA's anchor chain

running out. The buoy drifted down river and grounded on the right descending bank of the river near Mile 194.5 AHP, from where they were rescued at about 1910 hours by the U.S. Army Corps of Engineers' vessel MATEUR. They were then transferred to ambulances aboard the White Castle Ferry FELICIANA for further transfer to the New Castle Hospital. After treatment, they were flown to New Orleans, where were hospitalized for treatment of minor bruises, abrasions and lacerations for one (1) day each, and who was scalded by hot water, for ten (10) days.

- 13. The pilot of the HELENA, Harold A. Rowbatham, was called as a witness before the Marine Board and answered some questions, but refused to testify further, claiming his privilege under the Fifth Amendment to the Constitution of the United States when questions were propounded concerning the collision.
- 14. The wreckage of the WHITE ALDER was located at about Mile 195.2 AHP, lying athwart the channel in approximately ninety (90) feet of water, with the bow towards the right descending bank. The Corps of Engineers' survey boat LESTER F. ALEXANDER, marked the wreck with two (2) buoys, one off the bow and one off the stern, and the CGC WEDGE (CG 75307) and barge (CG 68017) were positioned to commence diving and salvage operations.
- 15. On 9 December 1968, diving operations were begun by Navy and Goast Guard scuba divers. These operations were unsuccessful due to the strong river current and cold water and the divers were unable to reach bottom. On 10 December 1968, the CGC SALVIA (WLB 400) relieved the WEDGE which, with its barge, remained in the area. It was determined by the SALVIA's sea scanner that the wreck was in one piece, but the divers were still unable to reach either the wreck or the bottom.
- 16. On 11 December 1968, a salvage contract was awarded to Merritt Division of Murphy Pacific Marine Salvage Company. The salvage master, arrived on 12 December 1968 with personnel and equipment and diving operations were begun. As before, these divers also found the conditions to be most adverse, and it was only after marrying themselves to a 250 pound descending weight that they were able to reach the wreck. This mode of operation severely limited the mobility of the divers, which was restricted to a radius of about fifteen (15) feet, as this was the maximum length of hose and lifeline they could carry, from the descending wire which was caught by a grapnel on the port bridge wing. Zero visibility required all work to be accomplished by feel and the strong current precluded any exploration or work away from the lee of the wreck. The divers determined that the vessel was in a nearly upright position and heading approximately 303 degrees true, which placed the port side down river. On 14 December 1968, the body of

SN Jacks was recovered from the wheelhouse and on 15 December 1968, the body of the Captain, CWO Brown, was also recovered from the wheelhouse. Movement within the wheelhouse was very difficult due to the large quantity of debris and wreckage throughout the space, but the divers were able to determine that the wheelhouse had some structural damage. The forward limit of this damage appeared to be approximately at the center of the starboard door, and it extended aft involving both the side and after bulkheads. The starboard after corner of the house appeared to be set in and forward about one (1) foot. It was further established by the divers that the pilothouse rudder indicator showed approximately ten (10) degrees right rudder and that the pilothouse engine control levers for both engines were in a position that would run the engines at approximately one-third (1/3) speed ahead.

- 17. On 17 December 1968, the wreck shifted, dropping into a hole caused by the scouring action of the strong current against the hull. This shift caused severe turbulence on the surface of the river and the wreck buoys disappeared. On 18 December 1968, diving operations were resumed, but it was not until 20 December 1968 that the wreck was again located in eighty (80) feet of water. At this time it was determined that the vessel had dropped approximately thirty-four (34) feet below the river bottom and the heading altered to approximately 220 degrees true. The only part of the vessel found above the mud line was the upper ten (10) feet of the A-frame with approximately seventy (70) feet of water over it. On 21 December 1968, all diving operations ceased.
- 18. Between 30 December 1968 and 2 January 1969, attempts were made to sweep wires under the hull in order to raise and transfer the vessel to the bank. These efforts were completely unsuccessful and were stopped. At this point, all salvage attempts and efforts to recover bodies were terminated. The position of the wreck at this time was: Latitude 30°12'01"N, Longitude 91°10'02"W.
- 19. A damage survey was held on board the SS HELENA while lying afloat at Baton Rouge, Louisiana, attended by Coast Guard and vessel owner representatives. The damage found in the area of the bow was minor and did not materially effect the seaworthiness of the ship.
- 20. Vessels, organizations and individuals that assisted in search and rescue operations were:
 - a. S/S MATEUR, U.S. Corps of Engineers
 - b. M/V ALEXANDER, U.S. Corps of Engineers
 - c. M/V BELMONT, U.S. Corps of Engineers
 - d. M/V NATIONAL GATEWAY, National Marine Service Corporation, Houston, Texas

- e. Sheriff's Department, Iberville Parish, Louisiana f. Iberville Parish Sheriff's Flotilla
- g. White Castle Ferry, M/V FELICIANA
- H. Mayor Sam J. Guercio III, White Castle, Louisiana

Conclusions:

- 1. The cause of the casualty to the extent determinable was the failure of the two vessels to agree on the method of passing and to keep to their respective sides of the channel. It is probable that the sharp bend, with its restricted visibility, the swift current, and the narrow channel in this area of the river also contributed to the casualty by making the courses and intentions of the vessels involved difficult to ascertain. A further contributing factor was the failure of the SS HELENA to slacken speed when approaching the other vessel, so as to involve risk of collision, after failing to agree on the method of passing. The speed of the WHITE ALDER during this approach situation was not determined due to the deaths of all of the watch personnel.
- 2. Although there is evidence of negligence by the persons in charge of the navigation of the vessels, no persons involved in this casualty were serving under the authority of any merchant mariner's document or license issued by the Coast Guard. CWO3 Samuel Brown, Jr., who was in charge of the navigation of the CGC WHITE ALDER at the time of the collision, is deceased.
- 3. a. That there is evidence of violation of Rule numbered 18(b) of R.S. 4233 (33 USC 343) by the CGC WHITE ALDER in that she failed to promptly answer the first passing signal of the SS HELENA either by an assenting signal, or, if this maneuver was considered dangerous, by blowing a danger signal. If the WHITE ALDER did not hear this signal, then there is evidence of violation of the foregoing rule in that she failed, when the vessels were within one-half $\binom{1}{2}$ mile of each other, to blow a danger signal followed by a passing signal.
- b. There is evidence of violation of 33 USC 346 (Western River Rule No. 21) in that the HELENA, upon approaching the CGC WHITE ALDER, did not slacken her speed.
- c. That there is evidence of violation of 33 CFR 95.09(b)(2) and (3) by the SS HELENA in that, after receiving no answer to her initial passing signal, she did not resolve the doubt during impending danger by sounding a danger signal.
- 4. That no other personnel of the Coast Guard or other government agency contributed to the casualty.
- 5. That no aids to navigation, nor any uncharted or incorrectly charted objects were involved.
- 6. That strict compliance with the Rules of the Road would have prevented the casualty. The casualty might also have been prevented by the use of bridge-to-bridge radiotelephone communication by the vessels involved to facilitate an agreement on the method of passing.

- 7. That those personnel from the CGC WHITE ALDER that are missing are presumed dead.
- 8. That CWO BROWN and SN JACKS died as a result of this casualty.
- 9. That those Coast Guard persons dead and presumed to be dead, died in the performance of their duties.

Recommendations:

- 1. That a copy of this report be forwarded to the American Pilots' Association for further action on their part against the state license of Harold Anthony Rowbatham, pilot of the SS HELENA and a member of the New Orleans-Baton Rouge Pilots' Association, concerning his part in this casualty.
- 2. That a Report of Violation be forwarded to Commander, Eighth Coast Guard District, for appropriate action under the administrative penalty provisions in connection with evidence of violations of Rules of the Road by the pilot of the SS HELENA.
- 3. That efforts be continued to require bridge-to-bridge radiotelephone communications and the monitoring of same by watch personnel of vessels in the Inland Waters of the United States.

E. J. WORKEL Captain, U.S. Coast Guard Chairman

ENOCH 4. POULTER
Captain, U.S. Coast Guard
Member

WILLIAM A. MENTGOMERY Captain, U.S. Coast Guard Member

Z. Y. WALD / Commander, U.S. Coast Guard Member/Recorder



DEPARTMENT OF TRANSPORTATION UNITED STATES COAST GUARD

Address reply to:
Commander
U.S.Coast Guard Group
4640 Urquhart Street
New Orleans, La. 70117

· 5943/WHITE ALDER/HELENA 28 September 1970

From: Chairman, Marine Board of Investigation

To: Commandant (MVI)

Subj: S/S HELENA (Taiwan) and CGC WHITE ALDER (WLM 541); collision, Mississippi River, 7 December 1968, with loss of life

Ref: (a) COMDT ltr of 31 Jul 1970 reconvening the subject Marine Board of Investigation 5943/Helena-USCGC WHITE ALDER A-8 Bd.

- 1. On 25 August 1970 at 0900 local time, the subject Marine Board of Investigation, at the request of the National Transportation Safety Board, was reconvened at Coast Guard Base, New Orleans, La.
- 2. The Board had been specifically assigned the task of inquiring into four areas. These are:
- I. What instructions were in existence in the Eighth Coast Guard District, or standing order or procedure on board the WHITE ALDER concerning the guarding of Channel 13 (156.65 MHz) while underway in the Mississippi River?
- II. What instructions were in existence in the Eighth Coast Guard District, or standing order or procedure on board the WHITE ALDER concerning the use of radar under the circumstances such as the WHITE ALDER was operating at the time just preceding the accident?
- III. What was the last known service operating condition and history of the radio and radar equipment in the WHITE ALDER?
- IV. What was the actual past routine operating procedure of the Commanding Officer in similar passing situations with respect to indicating passing signals, use of bridge-to-bridge telephone, staying to the right side of the channel in such sharp turns of the inland waterways as Bayou Goula Bend.

Findings of Fact

1. At the time of the collision, the ship's organization manual of CGC WHITE ALDER contained instructions requiring 0.0.D's to guard Channel 13 at all times while underway. All 0.0.D.'s initialled these instructions to indicate that they had read and understood them. There was a regular procedure followed on board wherein Channel 13 was used to communicate with other ships, tugs and pilots concerning meeting and passing situations. The 8th District's operations plans required vessels of the WHITE ALDER type to guard Channel 16 (156.8 MHz),

the National Distress Frequency, at all times and in addition either Channel 22 (157.1 MHz) or Channel 13. Channel 22 was to be guarded only when within range of a Coast Guard shore station and at all other times Channel 13 was to be guarded. The normal range of communications with the FM equipment on board WHITE ALDER was approximately 20 miles. Bayou Goula Bend is in excess of 50 miles from New Orleans, the nearest Coast Guard shore station.

- 2. Coast Guard Regulations, Chapter 7, part 2, under the title "Commanding Officer of a Ship", states: "(14) If the vessel is equipped with radar, insure the use of that equipment at all times when underway in or near areas of reduced visibility and such other times as the safety of the vessel may require." No additional District instructions were deemed necessary. The ship's organization manual also required that the radar be on and used as necessary at all times while underway. Additionally, a procedure of using the radar on different ranges to scan the river as thoroughly as possible for targets was in force at the time of the casualty.
- 3. The radio and radar equipment had been thoroughly inspected, tested and proved in good operating condition by personnel from Coast Guard Base, New Orleans, electronic maintenance department, during the months of November and December 1968. Normal operating procedures required any failures to be corrected prior to departure on assignment and the vessel to file a casualty report with the base by message in the event of any electronic outages while away. No such reports were made at any time from the vessel's departure until the collision. Electronic history of the equipment in question has shown it to be reliable and not subject to failure.
- 4. Past operating procedures of the Commanding Officer was to require all O.O.D.'s to keep to their own starboard hand of the river when approaching such sharp turns of the inland waterways as Bayou Goula Bend. All O.O.D.'s were to broadcast the position of WHITE ALDER, her direction of travel and request answers from vessels in the vicinity. Whistle signals were to be used as required and a method of meeting and/or passing agreed upon. While normally maintaining position on the starboard side of the channel, WHITE ALDER would, upon the request of other vessels or tows, agree to starboard to starboard passings.

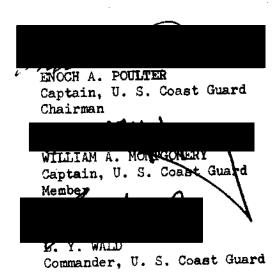
Conclusions

1. It is concluded that there were instructions contained in the Ship's Organization Manual requiring the guarding and use of Channel 13 while underway in the Mississippi River. It is further concluded that this frequency guarding was left by the District Commander to the discretion of the Commanding Officer of vessels, in that they could guard Channel 22 (156.8 MHz) when within range of a Coast Guard shore station, or when out of range of a Coast Guard shore station, monitor Channel 13. The vessel when in the vicinity of Bayou Goula Bend was too far distant from Coast Guard Base New Orleans to transmit or receive on Channel 22. Therefore, it is concluded that the vessel did guard and use Channel 13 when navigating the Mississippi River in the vicinity of Bayou Goula Bend.

- 2. That instructions for the use of radar on board Coast Guard vessels had been promulgated by a superior command and there was no reason for the Eighth Coast Guard District to issue repetitive instructions. That there were in the Ship's Organization Manual instructions pertaining to the use of the ship's radar. That the ship's radar was operational and in service at the time of the collision.
- 3. That the last known service operating condition of the radio and radar equipment on board the WHITE ALDER was satisfactory, and their operating history showed them to be reliable and not prone to failure. That routinely, the Commanding Officer would immediately notify the Base electronics shop and cease all operations of his vessel when there was any malfunction of his electronic equipment and await a repair detachment.
- 4. That the actual past routine operating procedure was in accordance with the applicable rules and regulations.

Recommendations

1. No additional.



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