U. S. COLST GUARD Washington, D.C. NYI 8 May 1953 (Yernstream — Hamaitan Ratcher-C-12 Ba)

From: Chief, Merchant Vessel Inspection Division

To: Commendant

Via: Chief, Office of Merchant Marine Safety

Subj: Marine Board of Investigation; collision involving MV FERNSTREAM (Norwegian) and SS HAWAIIAN RANCHER, San Francisco Bay, California, 11 December 1952

- 1. Pursuant to the provisions of Title 46 CFR Part 136, the record of the Marine Board convened to investigate subject casualty, together with its Findings of Fact, Conclusions and Recommendations, has been reviewed and is forwarded herewith.
- 2. On 11 December 1952, the SS HAVAIIAN RANCHER, a cargo vessel of 8,353 g.t., was inbound in San Francisco Bay and proceeding to an anchorage, and the MV FERNSTREAM (Norwegian) was outbound proceeding to sea. The weather was feggy, with visibility from 1/4 to 7/10 mile, and the sea calm. Both vessels were sounding regulation fog signals and their respective reders were manned by competent personnel. While proceeding on various courses and speeds, errors in judgment of course and speed were made and both vessels collided at 0730, 11 December 1952, in position 121° True, 0.8 miles from Lime Point Lighthouse. The FERRSTHEAM sank with no loss of life and the HAWAIIAN FANGHER suffered bow damage.
- 3. The Board made the following Findings of Vast:
 - "1. On 11 December 1952, about 0730 P.S.T., the SS HAHAIJAN RANCHER and the Norwegian meter vessel FERESTREAM cellided during foggy wenther on San Francisco Bay, California, in a position about 1210 T., 0.8 miles from Line Point Lighthouse (U.S.G. & G.S. Chart No. 5535). The FERESTREAM mank with no loss of life. The HANAIIAN RANCHER suffered bow damage.

"2. The vessels involved were:

a. HANATIAN RANCHER-Official No. 246204, a "C-3" type ocean freight vessel built of steel in 1944 at San Francisco, California. It is of 8,353 gross tone, 468.5 feet registered length and powered with a steem turbine engine of 8,500 horse-power driving a single screw through geared reduction. The vessel

THE LOSS OF THE PARTY OF THE PA

was last inspected and certificated at Sen Francisco, California, on 10 April, 1952, as an ocean freight vessel authorized to carry 12 persons in addition to the crew. It is comed and operated by Matson Mavigation Company, 215 Market Street, San Francisco, California.

- b. FERRITRIAL Sorvegian nationality ocean freight vessel, built of steel in 1949 at Outhenburg, Seeden. It was of 4,980 gross tons, 416 feet registered length and powered with a Bornelster Waix, seven cylinder, two-cycle dissel engine of 7,00 shaft horsepower directly driving a single name. This vessel's home port was Onle, Morrey, and was comed by Fernier and Rec. The vessel was operated under authority of a valid Morregian register, and load line and enfety certificates required by International Conventions. In addition, it had a valid certificate insued by the U. S. Goast Guard paraliting it to carry besieve persons in addition to the area from U.S. parts. The vessel's local representative is Oversees Shipping Company, 310 Sansons Street, San Francisco, California.
- "3. The weather at the time of casualty was wind and see caim. It was daylight and a misty for limited visibility from 1/4 mile to 7/10 mile in the area of Presidio Shoul between Fort Point Lifeboat Station and the degreesing range. The stage of the tide at the time of collision was about one-half hour past high water but the current was still flooding in an easterly direction at a velocity of shout one knot.
- "4. The HAMAIIAN RANGERR was on a voyage from Hilo, Humii, to San Francisco, California. It carried his persons in addition to the error and about 9,000 tons of sugar, mplasses, cannot pincapple and miscellaneous cargo. The draft leaving Hilo was 26'06" forward and 28'03" art (27'04)" mean).
- *5. Prior to arrival at the San Francisco Light Taccal, the second mate on watch checked the bridge clock against the chromoseter and then synchronised the bridge alock with the engine room clock by reporting the correct time to the engineer on watch. Differences in time between the bridge bell book, engine bell book, FERESTRAN'S log books and testimony of the PRINCIPARICS crew members had to be resolved. The Board determined that the bridge time of the HAVAIIAN RANCHER checked closer to the times stated on Engl. 2 and the testimony of the pilot of the FERESTRAM. The times employed in these findings of facts are Pacific Standard Times to which the bridge clock of the NAMALIAN RANCHER was set.

S. 186

The source recorder clock of the RAJAIIAF ROWER sheeked within one minute of the bridge clock time. The gyro error, if any was so slight it was not considered.

"6. The HAWAITAN RAKEER took extinuitely the Sex Francisco
Light Vector at 0628 hours on 11 December 1962. The engine was
turning 60 space. At 0657 specif was reduced to 90 space. At
07106 Hilo Rock Light Rouse was about 0,6 miles off on course
0650 gyro. Average specif between times points was 12.7 knots.
For signals were being sounded. The master was on the bridge
piloting. Assisting him were the chief mate, second mate and
helmman. The corporate and a lockout ways on the foc'ule head.
The fathometer was on.

"7. Off Mile Book Light House, course was changed to 0590 gyro. At 0716 speed was reduced to slow (20rpms.) and at 0717 speed was increased to half sheed at 40 rpms.

- *8. Approximately half way between Mile Rock and the Galden Gote Bridge, the second mate scanned the harbor ahead on the Raytheon radar scope, set on the four-mile scale. He saw manarous small targets and two larger targets fairly close tagether just under four miles distant. He reported the larger targets to the master as ships. They later were determined to be the MY PERMSTREAM and SS GEORGE INCREMACH.
- Wy. A minute or two prior to passing under the Golden Cate
 Bridge, the master started swinging his vessel to the right. It
 passed under the bridge at 0723 swinging on right radier. The
 everuge course made good from off Mile Rock to the bridge was about
 061°T. The average speed over the ground between these positions
 was 9.7 knots. The current was flowing in a direction with the
 vessel at a velocity of about one knot. Under the bridge, the
 south tower was visible; but, the north tower could not be seen
 by the lookout, carpenter or chief mate. It was determined the
 HAMAIIAN RANCHER passed under the bridge in a position about 500
 yards north from the south tower.
- "10. When the HAWAIIAN RANCHER was approximately under the bridge, and swinging right, the second mate again checked the radar scope and observed the two larger targets "slightly separated" at a mean distance of about two miles. The bearing of the targets indicated they would be "somewhat to starboard" when the HAWAIIAN RANCHER steadied on its course to Anchorage 7. He reported this

Chief, MVI Division to Compandant

picture to the mater; and, upon the master's request, went to the chart room to determine a safe course to encharage. Before the second mate reported the course to the master, the master ordered the vessel to steer 090° gyro, and at about 0724, the vessel was on this course.

"11. The FERNSTRIAM departed from the north side of pier 22 at about 0692 on 11 December 1952, bound for Manila, P.I. It carried 62 erew, 11 persons in addition to the erew and was full loaded with 6,378 tons of cargo, consisting of 3,000 tons of say beans in bulk, the belance general cargo and mail. Its draft on departure was 23'09" forward and 28'00" aft. (25'10}" mean). The FERNSTRIAM was loaded down to one inch above its allowable load line.

*12. San Francisco Bar Pilot, W. J. Olsen, acting under authority of his California State license, was on the bridge piloting. With him on the bridge were the master, third officer and helmann. The chief mate and carpenter were on the foc sle head standing by the anchors and acting as lookout. Visibility was about 1.5 miles when the FERRSTREAM left the dock and it decreased as the vessel proceeded outbound. The vessel's Sperry radar, set on the two-mile scale, was on and operating satisfactorily. The radar had a plan-position-indicator (PPI) type scope and was located in the wheelhouse.

"13. The vessel's main engine had been running at the lock and was warmed up when the FERRIST LAM departed. As close as can be determined by the testimony, the FERRISTICAM'S maneuvering speeds were about 14 knots at full speed ahead, 10 knots at half speed ahead and 6 knots at slow speed ahead.

"14. After the FERICIES M left the dock, Pilot Olsen headed it is a general northerly direction. Because of other vessels on the bay, Olsen maneuvered on various speeds and headings. The FERISTR AM passed Blossom Rock Buoy close by on its port side and after rounding the buoy, headed in a general direction toward Pier 45. Both Alcatras Island and Pier 45 were visible. It was when these points were abeam or slightly abaft the beam that the FERISTREAM overtook the GEORGE LUCKERBACH about 200 to 300 yards off the FERNSTREAM'S starboard side. The FERNSTREAM'S engine was on full ahead.

"15. According to the testimony of the pilot and chief mate, the FIRNSTREAM passed through the degaussing buoys about 100 yards south of Buoy "A" (the northermost buoy). The master was guarding the redar scope and testified the FERNSTREAM "passed the degaussing buoys on the south side". The master later changed his testimony to agree with that of the pilot and this was supported by the chief mate.

"16. Before continuing with the "ERRST-EAR'S measurers, from this point to the point of collision, it should be stated that records maintained on the FERRSTREAM in regard to times of engine mansuvers, courses steered, and other information from which a definite fix of this vessel could be assertained, were lost and not available to the Board. The rough and smooth bridge logs were written up in the morning and afternoon after the collision, respectively, from recollected times and mansuvers. Heither this information nor testimony of FERRSTREAM witnesses established satisfactorily to the Board the time the FERRSTREAM passed the degaussing buoys or the position of the FERRSTREAM in relation to the degaussing buoys.

*17. It was testified that the FERRETREAM passed the degaussing buoys with its engine on half speed alread and on course 275° gyro. The master was still guarding the radar. The vessel had been and was still sounding fog signals. The wheel had been relieved earlier at about 0715 with the helm hard left and the relieved helmsman was to join the chief mate and carpenter on the foc'sle head as lockout after he called the watch.

"18. Shortly after passing the degaussing range, the master reported to the pilot that he picked up a target (MARATIAN RANCHER) just coming through the bridge bearing slightly on the port bow and 1.7 miles off. This observation checked reasonably close with the observation the second mate of the HAWAIIAN ANCHER made of the mean distance and bearing of the FERNSTREAM and GEORGE LUCKENBACH when the HAWAIIAN RANCHER was about under the bridge (paragraph 10 of facts). A fairly accurate position of the FERNSTREAM was determined to bear about 095°T., 1.7 miles from the HAWAIIAN RANCHER'S position under (or slightly inside) the bridge. The time was determined to be 0723 or 0723.5

"19. The speed of the HAMATTAN WANCIER at half ahead on 40 rms., allowing one knot current and 5% positive slip, was determined to be about 9.0 knots.

8 May 1953 (FERRSTREAM --HAWAITAN RANCHER-C-128d)

"20. After the second mate went to the chart room, the master of the HAWATAN RANCHER observed the radar scope. Then the second mate returned the master asked him about two targets on the scope. The second mate observed the FERRSTREAN had closed rapidly to a distance of 0.7 to 0.8 miles and bore about 50—on the sturboard bow. The time was between 0725 and 0726. The second mate reported the situation to the master who ordered alow speed; heard the for signal of the FERRSTREAM and ordered stop engine. The time was 0726.

course to 090° gyro, the position of the HAMATIAN HAR HER at 0726 was determined to bear 133°1., 0.6 miles from Line Point Light House.

*22. At 0727 the FE MST EAM was sighted and reported by the lookout and chief mate of the HAMAIIAN RANCHER. The master simultaneously ordered the rudder hard right and the engine full astern and blew three short blasts, followed immediately by an emergency jingle to the engine room. The HAWAIIAN RANCHER then heard three short blasts from the FERMSTREAM and it repeated the smargency jingle and three short blasts. When the FERMSTREAM was first sighted it bore about 50 on the starboard bow of the HAWAIIAN TARCHER.

"23. When the helmsman on the HA AIIAN FANCHER received the order "hard right" the heading of that vessel had fallen off to 085° gyro. At about 0729.5 the collision occurred with the MANAIIAN RANCHER heading 090° gyro. Immediately following the impact the engine was stopped and placed slow sheed for helf a minute and then stopped and the helm was put amidalup. The vessel's heading fell off to 047° gyro after the collision.

*24. The FERRETE AM'S position at about 07252 when it bore 09507., and about 0.7 to 0.8 miles from the HAWAIIAN R BCHER, was determined to be within about 0.1 mile east or west of a point bearing 3560 T., 1200 yards from Anita Rock Bell Buoy *1*.

#25. When the master of the FERNSTREAM first reported the HAWAITAN RANGEER as a target to the pilot, the pilot observed the radar scope. Either before or after the pilot observed the picture, he ordered slow speed and a change of course from 275° gyro to 280° gyro. Between this time and the collision, both the master and

8 May 1953 (Pernstrean -Hawaiian Rancher-C-1284)

the pilot again observed the radar picture. The helmsman, who had been relieved at the whoel, reported on the foctale head as lookout shortly after the vessel passed the deganssing buoys.

"26. The next order given by the pilot was to stop engine. The master observed the HAWAIIAN MANCHER on the reder scope a little over half a mile, bearing about 100 on the part bow. The pilot, lookout, and carpenter, prior to seeing the HAMAIIAN HAMCHER, heard its fog signal. Neither the master, chief mate, nor the third mute, heard the fog signal. Shortly after hearing the fog whistle of the HANA LAN RANCHER, it was sighted and reported by telephone to the bridge by the chief mate. When the pilot first saw the HAWAIIAN RANCIER, he ordered course shanged to 2900ggro. The pilot thought the vessels would pass clear. After the HAWAIIAN RANCIER was clearly visible through the fog, and was observed heading on a collision course, the pilot ordered full astern and sounded three short blasts. Just seconds before the collision, the pilot ordered the wheel "hard-a-port" and the engine full shead. He stopped the engine before the order could be executed to protect the engine room crew.

"27. The vessels collided at an angle of about 20°. The port bow and stem of the HAWAIIAN RANCHER first came in contact with the port side of the FERNETRIAM just about the bridge, demoging the lifeboot and superstructure. It penetrated the bull at the after part of the engine room, demaging the vetertight bulkhead to No. 4 hold. The bow of the HAWAIIAN RANCHER withdrew from the hole in the FERNETRIAN within a few seconds. The FERNETRIAM had one or two knots headway when the collision occurred.

"28. All witnesses testified in average agreement that visibility was a half mile when the vessels first sighted each other.

"29. The position of the collision as determined by the Board was about 1210., 0.8 miles from Lime Foint Light House.

"30. After the collision, the FERNSTREAM'S engine room crew had no time to close the watertight door to the shaft allay. Its power failed immediately and the HAMA TAN RANCHER radiced a massage which was interespted by the Coast Guard Fort Point Lifeboat Station. The HAMAITAN RANCHER immediately lowered a lifeboat to assist and stood close by. The master of the HAMAITAN RANCHER offered to coas ahead into the hole. He heard no reply other than to stand by close

Chief, MVI Division to Commendant

to the PERNSTREAM. The FERNSTREAM'S master said "yes" to the offer of the HAMAIAN RANCHER'S master to give a tow line but the crew had all abandoned the FERNSTREAM at this time. The crew and passengers abandoned the FERNSTREAM in three lifeboats less than fifteen minutes after the collision. The FERNSTREAM slowly listed to port and sank by the sterm. At USO7 it went under and now rests on its side in 152 feet of water.

- "31. Coast Guard vescels assisted at the scene—landing survivors, patroling to wern shipping, picking up rloating cargo, sounding over the wreck and establishing a buoy marking the wreck. The vescels were CG-38369, CG-36473, CG-83411, CGC CALDET, CGC WILLOW. Passengers and error were taken to the U. S. Public Health Service Rospital where they were examined and released. One passenger and one crew number were slightly cut. The loss of the FERRSTREAM and cargo was estimated to amount to #3,500,000.
- "32. The second mate of the HAWAIIAN RANCHER plotted some radar fixes when that vessel was standing by. After he FERNSTNEAM sank, the HAWAIIAN RANCHER proceeded to Bethlehes Shippard. It had taken water in the forepeak and damage was estimated to amount to \$40,000.
- "33. During the afternoon of the day of casualty, the HAWAITAN RANCHER, in the same load condition, departed Bethle.em for Crockett, California, to discharge cargo prior to drylocking for repairs. It was in command of a relief master, although its regular master as well as its owner's attorneys, were on board. On the way to Grockett the vessel was subjected to a test simulating closely the maneuvers it made to avoid collision earlier in the day. The result of this maneuvering test helped to confirm the Board's conclusions and the Board's determination of the position of the collision (Par. 21 of Facts.)."

The Board made the following Conclusions:

"34. This is another major marine assualty, in which two wescale, each provided with radar in good operating condition and working at the time, collided. The primary cause of the collision was excessive speed, on the part of the FERRSTREAM, at a time when the circumstances and conditions required a moderate speed. In this regard, the FERRSTREAM'S master are pilot are considered negligent and in violation of Article 16 of the Inland Rules of the Road.

The two vessels were separated by 1.7 miles at 0723; and by 0.7 or 0.8 miles at about 0725.5. This gives a speed of approach of from 21.6 to 24 knots, if the vessels were approaching head on. Since the vessels were approaching at an angle of 50 to 100, the speed of approach would be slightly greater. Allowing a maximum speed of 9 knots over the ground for the HAMAIIAN NAME:ER during this time, the FEFRET MAN'S speed would be from 12.6 to 15 knote over the ground, or from 13.6 to 16 knote through the water. Allowing the FERESTEFAM the beselfit of any doubt or argument that this speed was computed over too short a period of time and distance, then the average speed of the FERRETRIAN from 0723 until 0729.5 can be established at 9.3 knots over the ground, with the FERRISTREAN having decelerated to about one or two knots at the time of collision. The testimony to the effect that the FERNSTREAM'S engine was only meneuvered slow ahead, stop and full astern during this period of time, must be discredited.

"36. Further evidence of headway on the FERNSTRUAN, at the time of collision, is that its momentum swung the bow of the HAWAIIAN RANCHER to the left even after the HAWAIIAN RANCHER had come slow sheed on hard right rudder; and, after the collision, the FERNSTREAM continued to mak was in a westerly direction.

"37. The Board agreed that the HAHAIIAN RANCIER was dead in the water and may have had sternway at the time of collision. The Board was further satisfied that it had lost all headum, within its allotted share of one-half of the visibility. In determining this, the Board considered the trial run data of a sister ship. In the trial test, the vessel had a mean draft of 19°03"; and, from full sheed at 85 rpms. (about 17 knots), it was stopped in the water in 3 minutes and 20 seconds with a head reach of 600 yards. It took 21 seconds to stop the shaft before it started to turn astern. Although the HAWAIIAN ANCIER was about 8 feet deeper in the water, it was going only 9 knots when its engine was stopped for one minute (and its shaft had stopped turning) and before the engine was placed emergency full astern.

"38. Contributing to the collision was the failure of both vessels to take advantage of the full information available to them on roder. The second mate of the HAWAIIAN HANCHER was a qualified reder operator; and, the master of the FERNSTREAM had 10 years! experience with reder. In the case of the AUSTRALIA STAR—HINDOO,

Chief, MVI Division to Commandant

1947 ANC 1630, the U.S. District Court for the Southern District of New York said, in part: "Since the heading of a ship can be plotted from its bearing and distance at two or more points in time, the reder operator can with great accuracy plot the heading of a ship after taking a musber of radar readings. ... By means of her radar the AUSTRALIA STAR could observe the HIMDOO and determine her heading and speed with greater exactitude than if the HIMDOO had shown her nevigation lights. ... Because both vescels could have done this but failed to do so, the master of each vescel, as well as the pilot of the FURNETHIAM, was institutive to his duties.

- "39. The FERNSTREAM'S maneuvers of changing course to the right 10° when the HAWAIIAN RANCHER was first sighted, and her failure to go astern until after the outline of the HAWAIIAN RANCHER had emerged through the fog, made it apparent that the FERNSTREAM'S pilot, and possibly her master, did not believe danger of collision existed prior to this time. The collision might not have been avoided if the Filot of the FERNSTREAM had immediately put its engine astern, when the HAWAIIAN RANCHER was first sighted; but, damage would have been less and the FERNSTREAM might not have been a total loss.
- "40. In determining the position of the collision, the Board allowed 250 yards head reach from 0726, when the HAMAIIAN RANCHER's engine was stopped, until 0727, when the engine was put full astern. Another 250 yards head reach was allowed from the time the engine was placed full estern until the collision. This position corresponded very closely to the position determined by the master of the HAMAIIAN RANCHER. The 0738 redar fix of the second mate of the HAMAIIAN RANCHER was considered ascurate; and, it checked with the sounding he read from the fathometer. Morking back from this redar fix, employing the course recorder, bell books, pitch of the wheel and a slight current, will further confirm the accuracy of the position of the collision.
- "41. The Board cannot understand why the position of collision as determined by the FERESTREAM'S pilot was so in conflict with established facts. The Board was unfavorably impressed with the rapidity, lack of hesitation and positive manner, in which he established positions. He showed the FERNSTREAM on course 290°T. for one-half mile prior to the collision, when the facts show that this course change was not ordered until after the HAWAIIAN RANCHER was sighted. Other facts, which discredit the FERNSTRUAM'S alleged

positions, are: That, after rounding Blossom Rock Buoy, the vessel headed in the direction of Pier 45; it then passed south of the GEORGE LEGISHEACH and in this area the believen was pelieved. When the relieving believen reported on the bridge, the rudder was hard left and remained hard left for so long a period of time that both believen broke tradition and engine by relieving the helm in that position. These measurers would place the FERSTHEAM alone to shope. The Board did not consider that the "marrow channel" rule governed navigation in this area.

- "42. Witnesses from each vessel testified that it was their respective vessel which blow the three-blast signal first; elthough some of the PERESTRIAN'S witnesses testified they heard one blast from the HAWAITAN RANCHER gave the three-blast signal determined that the HAWAITAN RANCHER gave the three-blast signal first primarily because of the immediate full esterm action taken when the FERMSTRIAN was first sighted. The Board concluded that two blasts of the HAWAITAN RANCHER'S first three-blast signal were given at the same time as one of the memorous fog born axis to mavigation in the near vicinity, and therefore were not heard on the FERMSTRIAN.
- "43. The testimony of the FEMSTHAM'S belowner was accepted although it appeared unusual that he could not recall any events other than orders to the helm. Testimony of the FEMSTHAM'S muster, chief mate(who later wrote up the log books from various rough notes which were not produced), third mate, assistant angineer, oiler Kongelbak and seemen Walls, was discredited to a large degree. After the testimony of the assistant engineer a number of the Board talked with the interpreter. The interpreter felt certain that this witness had understood questions in regard to persons the witness had talked with prior to testifying before the Board.
- "AA. It was fortunate that the FERRSTHEAN was abandoned without loss of life or serious injury. The Board felt, however, that the master should have ordered an emergency error to remain on board longer. As it was, the vessel remained affect for thirty-seven to thirty-eight minutes, thus allowing sufficient time to take a line on board and tow the FERRSTHEAN the short distance to shallow water.
- "45. As fer as was determined during the investigation, the FERRST EAM appeared to be in compliance with the provisions of the International Convention for the Safety of life at Sea of 1948, as well as the provisions of the International Load Line Convention, of which the Coversment of Horang is a party. The master of the

F'RNSTREAM did fail, however, to comply with Recommendation 19 of the Safety Conference of 1948, in regard to navigation of ships equipped with radar.

- "M6. There was no failure of material on either vessel and all orders liven were understood and executed promptly and efficiently. The master of the MAWAIIAN MANCHER will be charged with inattention to duty for failure to require a closer guard on the radar and failure to obtain the maximum information the radar was capable of giving him. A hearing will be held at the earliest opportunity.
- "if. A Coast Guard Investigating Officer cannot, at this time, institute disciplinary action against the Federal license of the pilot of the FERNETREAM since he was serving under authority of a State license."
- 5. The Board made the following Recommendations:
 - "48. It is recommended that the pilet of the FERNSTREAM be cited for violation of 33 USC 192 (Art. 16) for excessive speed, and a suitable penalty assessed, as provided therein. A report of this violation will be submitted to the Commander, Twelfth Coast Guard District, in proper form.
 - "49. It is recommended that this case be referred to the American Pilots' Association for appropriate action. An extra copy of the investigation is forwarded for this purpose.
 - *50. There being no further action possible by the Board, it is recommended that this case be closed."

REMARKS

- 6. The recommendation of the Board, paragraph 46, that the pilot of the FERNSTRIAM be cited for violation of 33 USC 192 (Art. 16) for excessive speed, will be held in abeyance until the Coast Guard is informed of the results of the action recommended in paragraph 49.
- 7. The references throughout the Board's report indicating the evidence in the record on which the findings of fact and conclusions are based have been omitted as unnecessary for this report.

Chief, MVI Division to Commandant

8 May 1953 (Flemstram H/Mailan Ranch R C-12 Bd)

8. Subject to the foregoing remarks, it is recommended that the findings of fact, conclusions, and recommendations of the Marine Board of Investigation be approved.

/e/P. A. OVENDEN
P. A. OVENDEN

FIRST (NDORSEM NT TO "WI memorandum of 8 May 1953

M.

14 May 1953

From: Chief, Office of Merchant Murine Safety

To: Commandant

Forwarded, recommending approval.

/a/H. C. SHEPHEARD H. C. SHEPHEARD

APPROVED: MAI 18 1953

/s/ MERLIN O'MEILL

***SELIN O'MEILL

Vice Admiral, U.S. Coast Guard

Commandant