From: Chief, Merchant Vessel Inspection Division
To: Commandant
Via: Chief, Office of Merchant Marine Safety

Subj: Marine Board of Investigation; Collision between the SS ALMA S. G. R. and the SS AUDREY (Greek) in approximate position 43°56' N 121°48' W on 26 June, 1951

1. Pursuant to the provisions of Title 46 C.F., Art. 136, the record of the Marine Board convened to investigate subject casualty, together with its findings of fact, opinions and recommendations, has been reviewed and is forwarded herewith.

2. On 26 June, 1951, the SS ALMA S. G. R., a liberty type tank vessel fully loaded, was on route from Martinez, California, to Seattle, Washington, and the SS AUDREY, a liberty type vessel of Greek registry, fully loaded, was on route from Victoria, B.C. to South Africa, via San Pedro, California. At approximately 1600, 26 June, 1951, both vessels encountered fog, placed engines on standby but did not reduce speed. The AUDREY was not fitted with radar. The ALMA S. G. R. was fitted with radar and at 2100 sighted the AUDREY on her radar, 12 miles and made course changes to avoid collision. Neither vessel reduced speed until collision was inevitable and both vessels collided at about 2145 off the Oregon coast in approximate position 43°46' N and 121°48' W. At the time of collision there was a northwesterly swell, southwesterly air and fog. No injuries or loss of life were sustained as a result of this collision, however, both vessels sustained damage estimated at approximately $175,000 each.

3. The Board made the following findings of fact:

"1. The U.S. steam tankship ALMA S. G. R. and the Steam Freighter AUDREY, of Greek registry, collided in fog while underway off the coast of Oregon, in the vicinity of 43 degrees 46 minutes North, and 121 degrees 48 minutes West, at about 2145-1/2 EST.

"2. The two vessels involved were:

a. The ALMA S. G. R., a U.S. inspected Liberty-type steam tankship, official number 284487, of 7123 gross tons, homeport, Los Angeles, California, built in 1943, at that same port, of steel hull materials, owned and operated by Charles Curz & Company, Inc., 1000 almst street, Philadelphia, Pa. The S. G. R. was enrolled for Pacific coastwise trade, equipped with gyro compass, direction finder, fathometer, and Raytheon Engineering Radar.
At the time of the collision in question, the vessel was under the command of Captain John  Torrance. His license number is [redacted], issue 6,9, and carries First Class Pilotage endorsements for major east and west coast ports.

The SS AUDLEY, of Greek registry, a liberty-type steam freighter, of 7176 gross tons, built of steel in 1945, in South Portland, Maine. The vessel was formerly listed as the SS FRED RICK AUSTIN, of U.S. registry. The vessel was sold in 1946 by the U.S. Government to [redacted] of Greece, who is the present owner and operator. This vessel is equipped with a magnetic compass, a direction finder, and fathometer. It does not have a gyro or radar. At the time of the collision, the AUDLEY was in command of Kyriakos A. Koutroufiotis.

"3. At the time of the collision, there prevailed south southwesterly airs, force 1 to 3. There was a northwesterly swell, which was very slight, for, barometer 29.93, air temperature 54 degrees, sea temperature 51 degrees. These conditions were prevalent with respect to both vessels for some two hours prior to the casualty."

"4. The ALAN S. JERGER departed the Shell Oil Terminal, Martinez, California, at 0430 hours, PST, 27 June, 1951, fully loaded with refined petroleum products, consisting of approximately 65,000 barrels. The vessel's draft at time of departure was 26'06" forward, 29' 06" aft, and a mean draft of 28' 02". There was a 5" allowance for brackish water, in compliance with her loadline certificate. The S.J.R was manned by a crew of 37 men, including the Master and 4 mates. She was destined for Seattle, Washington, and was being piloted by the Master, Captain Torrance, who was a duly licensed pilot. Having cleared the San Francisco Pilot Station, the S.J.R proceeded northward along the Pacific Coast on various courses, in presence of intermittent fog and poor visibility. At 1548, 28 June, 1951, the vessel again encountered fog, and as on previous occasions, the engines were placed on standby. The vessel's engines under the previously stated conditions, turned 65 or 66 rpm, which gave an over the ground speed of about 10.5 knots. At about 1617 hours PST, and on course 349 degrees gyro,
Cape Blanco was abeam 6.5 miles by radar. The course was then changed to 360 degrees gyro, allowing 1/2 degree westerly deviation on the vessel's gyro compass. At 1506 hours, Cape Arago was abeam (western part), the vessel being off 13-1/2 miles, and still on course 360 degrees gyro. This radar fix was reported to have been very accurate. At 2000 hours PST, Mr. Varco, the Third Mate, took over the 6 to 12 bridge watch, on the navigating bridge. The vessel's course was changed at once to 358 degrees gyro, the speed remaining the same. At 2100, Mr. Varco stated that he observed on his vessel's radar, a target bearing one point on the starboard bow, distance about 12 miles. At 2106, the ALAN S. G.R. was abeam Umpqua River, distance off 22 miles; however, this distance was computed by Mr. Varco to be 24 miles, and was computed by radar and dead reckoning approximations. At 2115, the radar target previously mentioned bore wo points on the starboard bow, approximately 6 miles distance. Varco then changed course to 350 degrees gyro. At 2120, the vessel's course was changed to 348 degrees gyro, and thereafter this target bore 3 points on the starboard bow, the distance being not accurately ascertained. At 2140, a course change to 335 was made. Thereafter, the target bore 4 points on the starboard bow, distance off, 1.7 miles. At this time, the lookout rang one bell to report a ship's whistle off the starboard bow. This report was acknowledged by Varco. Varco then observed that the bearing of this target was not changing, and at 2145 ordered hard left. Following this order, a fuzzy white light appeared about 1/2 degrees and approximately 0.7 mile off the S. G.R. starboard bow. Varco then rang a full astern on the telegraph and sounded 3 blasts on his vessel's whistle. In addition, he sounded the general alarm, and hollered for the Master, thinking he was within hearing distance on the bridge below. The impact took place shortly thereafter, at 2146-1/2 PST. From the time Varco took over the bridge watch at 2100 until the time of the impact, the ALAN S. G.R. was sounding regulation international signals.

"5. At the time of the impact, the S. G.R. was making approximately 10-1/2 knots, and on a heading of 270 degrees gyro. The bow of the AURACY imbedded in the starboard bow of the ALAN S. G.R., at approximately a 90 degree angle in way of the forpeak tank of the ALAN S. G.R., and penetrating it past the centerline. Both anchors of the AURACY were broken off and remained imbedded on the S. G.R. when the vessels parted approximately 1/2 minute later. Following the collision, the S. G.R. identified the other vessel as the AURACY, of Greek registry.
6. Captain Torrance arrived on the navigation bridge momentarily after the impact. He had not been on this bridge for several hours during which interval of time he made frequent appearances on the port and starboard wings of the lower bridge and in addition listened to the weather reports as they became available over the radio-telephone located in his quarters. In addition, Captain Torrance reviewed the charts relative to his vessel's navigation up the coast and studied tide and current tables preparatory to arriving in Puget Sound waters. He was on the port wing of the lower bridge shortly before the casualty, and while there, heard a vessel's fog signal forward of his vessel's starboard beam, at an estimated distance of one mile. Shortly thereafter, the port sidelight and a white light of another vessel came into his view. He ran to the upper bridge, where on arrival, the collision occurred. The Master of the Umatilla was not notified of the approaching target or the circumstances such as the course changes, radar bearings and whistle signals until he was called just prior to the casualty. The First Officer also did not hear the late call but went to the navigation bridge after twice hearing the whistle signal of another vessel and observing the port and masthead lights. The ship was properly manned; an Able Seaman was on lookout in the eyes of the ship prior to the time of the casualty. The helmsman at the time of the impact, likewise, was an Able Seaman. All hands acted in accordance with their respective duties. The vessel's entire mechanical and navigational equipment operated satisfactorily up to the time of the casualty.

7. The SS Umatilla departed the pilot station off Victoria, B.C., on 27 June, 1951, at 1733 hours, Pacific Daylight Time. The vessel was enroute to South Africa, via San Pedro, California, where she was scheduled to take bunkers for her intended voyage. Her cargo consisted of a full load of lumber, part of which was stowed above deck, at an average height of about 8-1/2 feet. There were some 4,918,000 board feet of lumber in the cargo. The vessel's crew consisted of 35 men, including the Master. At 0035 hours, ship's time, 26 June, 1951, while on course 18° True, Umatilla Light was observed ahead, 5 miles. At that time, the course was changed to 152° degrees magnetic, allowing a 25 degree east rly error. The compass error on this vessel was not correctly ascertained until an azimuth was later taken. This azimuth calculation gave a 2-1/2 degree westerly deviation, and when computed with a 22 degree easterly variation, the true course, as determined from the record, from Umatilla was 172° degrees, rather than the 177° degrees True as stated by the vessel's Master. The clocks on the Umatilla had been set back some 70 minutes between 2000 hours on 27 June to 0800 hours 26 June, 1951. At noon on 26 June, 1951, the Master
of the AURORAY obtained by celestial observation, a noon fix giving a position of 45 degrees 42 minutes North, 121 degrees, 45 minutes West. This position was about 12 miles west of the 172 degree trackline. The vessel's speed over the ground from the point of departure until the noon position averaged 11.92 knots. Following the noon observation, the course of the AURORAY was changed to 162 degrees magnetic, 180 degrees True, allowing for an east rly course error of 15 degrees. At 1930 hours, fog was encountered, and regulation fog whistles were sounded by the AURORAY. At 2000 hours, the second Mate took over the bridge watch. The course of the vessel at that time was 162 degrees magnetic, speed approximately 11.9 knots. Shortly after taking over the watch, the second Mate, Mr. Kotomatis, was relieved by the Master. Kotomatis then took a lookout position on the port wing of the bridge, in accordance with the Master's orders. While on the port wing, Mr. Kotomatis heard a fog whistle of another vessel forward of his vessel's beam, and approximately 30 to 35 degrees off the port bow. This same whistle was heard by the vessel's Master and the lookout, who was posted forward on the deck load. The time was stated to be 2112 ship's time. The AURORAY thereafter commenced sounding signals more frequently in order to get a reply from the other vessel, so as to establish said vessel's position. There was no change in the speed of the AURORAY at this time. At 2115, ship's time, a green light was observed bearing about 05 degrees to port of the AURORAY, and close aboard. On seeing the light, the wheel was put hard right, and the engines stopped. The loom of the oncoming vessel became visible, and the engines were put full astern as the collision occurred. The AURORAY did not sound a 3-blast backing signal. Two fog signals from the other vessel were heard aboard the AURORAY, two minutes apart. From the time the 5-0-5's second whistle was heard and it became visible, a scant 30 seconds elapsed before collision, as previously described. Following the collision, the vessels separated in a parallel manner. Later, the port quarter of the AURORAY struck the S.S. R on the starboard side in way of number 6 tank and did moderate above-waterline damage. Thereafter, the vessels drifted apart in the fog, and with engines stopped the damage was surveyed aboard both vessels, and attempts made to communicate with the other vessel, as well as the owners and the United States Coast Guard. The S.S. R jettisoned some 10,000 barrels of cargo forward in order to lighten the bow. At about 0419, 29 June, the S.S. R got underway and proceeded to the Columbia River to discharge cargo and make permanent repairs. The AURORAY proceeded into Coos Bay for survey and later continued to San Francisco, where it underwent repairs. There were no injuries incurred or lives lost as a result of this casualty. Damage to the S.S. R was estimated at $175,000. The AURORAY incurred
similar monetary damage. NAV Coast Guard forms 2692 of the ALAN S-16-A have been forwarded to Headquarters. The AUDREY declined to submit said forms.

"8. Although the Master and crew of the AUDREY testified that their vessel was at all times on a course of 180 degrees True, it appears more accurately to have been on a southerly course, at least for the half hour preceding the collision. A careful perusal of the movements of both vessels from the information supplied by the testimony and exhibits in the record bears this out, special note being taken of the rudder bearings taken by Varco on the S-16-A, which, all due allowance being given for error, did not change appreciably when plotted as true bearings, as the vessels approached into the jaws of collision."

The Board expressed the following Opinions:

"1. It is the opinion of the Board that the primary cause of the collision was that both vessels were proceeding at an inmoderate rate of speed for the weather conditions then existing, and that the Masters of the two vessels were responsible for operating at such speed.

"2. The Master of the S-16-A, being responsible for the safety of his vessel, was derelict in not having been on the navigating bridge at the time of the collision, and for several hours prior thereto, during which time his vessel was navigating in fog.

"3. The Master of the creek vessel failed to follow the rules of the Road in not stopping his vessel's engines when first hearing the whistle from the S-16-A ahead of him and also obscured by the fog.

"4. It is further concluded that R. Varco, the Third Mate of the S-16-A, failed to follow the Master's orders in failing to call the Master to the bridge at the near approach of the other vessel, that he failed to properly use and interpret the information supplied by the radar, that he further failed to comply with the rule of the Road requiring him to stop his engines and maneuver with caution upon hearing the whistle signal of the approaching vessel, which was obscured by fog, as is required by Article 16 of the International Rules of the Road, if Varco had followed the procedure of other vessels not equipped with radar and customarily followed by prudent watch
officers under similar conditions, he not only would have had his vessel under good control, but he would also have assisted the other vessel to better ascertain his ship's presence by more frequent whistles, and furthermore, would not have altered his course to port, in the maneuvers which eventually led his vessel into collision.

5. The Board made the following Recommendations:

"1. It is recommended that appropriate action be taken under R. S. 4450, as amended, relative to the apparent negligence of Captain Torrance and Third 'ate Varco of the ALCO S.S. 'Rit for the reasons stated in the Opinion above. In this respect, it is to be noted that hearings have already been held in respect to the licenses of both Torrance (Portland, Oregon, NMCU Case No. 628-omp-4450) and Varco (Portland, Oregon, NMCU Case No. 628-omp-4451), with decisions in both cases presently pending.

"2. Since there appears to be no jurisdiction for any action relative to the Master and crew of the ALCOY because of her registry, none is recommended. However, it is recommended that a copy of the Findings of Facts (only), of the Board, be forwarded to creek naval Headquarters at Ithaca, Greece, for its use in its investigation of the operations of the ALCOY.

"3. It is also recommended that further study be made of the application of the rules of the Road to vessels equipped with radar, particularly in respect to operation in fog or periods of limited or obscured visibility. This Board recommends that radar-equipped ships should be cautioned to comply with the present rules, with emphasis upon operation under the foregoing weather conditions, to the same extent as, and in the same manner and method as, vessels not so equipped, and that the mere presence of a target on a radar screen of a vessel shall not entitle said vessel's personnel to depend on it as a vessel whose position has been ascertained, within the meaning of Article 16, paragraph 2, so as to relieve said vessel of the duty to stop engines and navigate with caution until risk of collision is over, upon hearing a fog signal from the direction of the target it is approaching.

"4. It is further recommended that the case be closed."
6. Opinion 2 of the board states that the master of the ALAN SANGER was derelict in not having been on the navigating bridge at the time of the collision and for several hours prior thereto during which time his vessel was navigating in fog. Since the record indicates that the master was up and about and made frequent appearances on the port and starboard wings of the lower bridge and was otherwise engaged in duties for the safety of his vessel and since the mate was on watch on the navigating bridge, contrary to the orders of the master, failed to notify him of the approaching AUDRY, the opinion of the board that the master was derelict in not having been on the navigating bridge at the time subject collision occurred cannot under the circumstances be concurred with, pending the determination and review of this issue in the record of hearings against the license of the master of the ALAN SANGER.

7. Recommendation 2 of the Board suggests that a copy of the Findings of Fact (only), of the subject casualty be forwarded to the Greek Naval Headquarters at Ithaeke, Greece for use in its investigation of the operations of the Greek vessel AUDRY. It is the view of HQ that the entire report including Findings of Fact, Opinions and Recommendations be furnished to the Greek Naval Headquarters, following approval by the Commandant.

8. Recommendation 3 of the Board is fully concurred with. In this connection there is substantive evidence to indicate that had certain of the vessels involved in serious collisions complied with the applicable provisions of the statutory and administrative collision regulations rather than relied upon the radars on board, such collisions would have been avoided. Due to this fact and other factors such as technical qualifications of operators, training, maintenance, etc., the "Radio Technical Commission for Marine Service", consisting of government and industry representatives has undertaken, and is now in the process of making a study for the determination of means of preventing collisions of vessels fitted with radar installations. At the International Conference for Safety of Life at Sea, held at London, England from 23 April to 10 June, 1948, the desirability of making radar installations mandatory on vessels was considered. This Conference rejected such mandatory proposal, and in lieu thereof provided as follows:

"The Conference, while recognizing that the recent advances in radar and electronic navigational aids are of great service to shipping, is of the opinion that the possession of any such device.
in no way relieves the master of a ship from his obligation strictly to observe the requirements laid down in the International Regulations for Preventing Collisions at sea, and in particular, the obligations contained in Articles 15 and 16 of those Regulations."

9. Subject to the foregoing remarks, it is recommended that the findings of Fact, Opinions and recommendations of the Marine Board of investigation be approved.

/s/ P. A. OVENDEN
P. A. OVENDEN
Acting

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From: Chief, Office of Merchant Marine Safety
To: Commandant

Forwarded, recommending approval.

/s/ H. C. SHEPHEARD
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APPROVED
October 30, 1951

/s/ A. C. RICHMOND
A. C. RICHMOND
Rear Admiral, U. S. Coast Guard
Acting Commandant