

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

Subj: Marine Board of Investigation; collision involving tankers
ATLANTIC DEALER and ATLANTIC ENGINEER, Delaware River, 30
December 1953, with loss of life

1. The super tanker ATLANTIC ENGINEER, of 19,498 g.t., length 628 ft., was inbound in the Delaware Bay with a full load of crude oil, and the steam tanker ATLANTIC DEALER, of 10,636 g.t., length 504 ft., was similarly inbound with a full load of gasoline.
2. The ATLANTIC ENGINEER anchored in the vicinity of Brown Shoal to delay arrival at Philadelphia, it being necessary to dock the vessel on a rising tide, due to her large size. At 2200 the ATLANTIC ENGINEER got underway for Philadelphia. Fog was encountered on the Liston Range and became more dense so that at Reedy Point the master and pilot deemed it unwise to continue navigation and that anchoring was necessary for the safety of the vessel. The Bulkhead Bar Range channel was selected as the nearest position of safe anchorage where the vessel could swing to her anchor without grounding. At approximately 0225 the ATLANTIC ENGINEER anchored in the channel at the intersection of the New Castle and Bulkhead Bar Ranges.
3. The ATLANTIC DEALER, following some distance astern of the ATLANTIC ENGINEER, encountered fog upon entering the Reedy Island Range and several ships were sighted anchored in and out of the channel. A super tanker was anchored in the channel east of No. 3 anchorage, which necessitated the ATLANTIC DEALER to leave the channel to pass free and clear. Visibility was not bad, but upon passing Pea Patch Light at 0323, forward visibility was observed to decrease rapidly. Further navigation was unwise and the master decided to anchor at the nearest position of safety just north of Buoy 7-N outside the western edge of the channel.
4. While coming to anchor and unaware of the anchored position of the ATLANTIC ENGINEER, the ATLANTIC DEALER heard the whistle fog signals of a downbound vessel but did not hear the bell fog signals of the anchored ATLANTIC ENGINEER and upon sighting the anchor light of the ATLANTIC ENGINEER such light was mistaken for the range light of the downbound vessel. Due to insufficient maneuvering space, the ATLANTIC DEALER and the ATLANTIC ENGINEER collided at 0332 30 December 1953 which resulted in fire involving both tankers and a loss of nine lives from the ATLANTIC DEALER.

5. Pursuant to the provisions of Title 46 C.F.R. Part 136, the record of the Marine Board of Investigation convened to investigate subject casualty, together with its Findings of Fact, Conclusions, and Recommendations, has been reviewed and is forwarded herewith.

REMARKS

6. Undeniably, as stated by the Board, neither vessel was operated with the highest degree of care capable under the circumstances. Notwithstanding the errors in judgment committed by the masters of both vessels involved in subject collision, the evidence nevertheless clearly indicates that both masters were well qualified and competent and used their best judgment in the performance of their duties for the safety of their vessels. Of greater significance with respect to the basic cause for the subject casualty is the Board's statement as follows:

"The decision of the ENGINEER to anchor in the Bulkhead Bar Range Channel being predicated on the safety of the vessel and the result of considered judgment on the part of both master and pilot cannot be criticised. The Board is well aware of the absence of safe anchorages available to vessels of her size and draft between Bombay Hook and Marcus Hook. Upon passing the Bombay Hook anchorage, navigators of the "super" cargo carriers are committed to continue or if anchoring becomes mandatory it must be accomplished in the channel. The problem is further complicated by the fact that these vessels are, with the exception of a few short reaches, almost as long as the channels are wide. Such was the unenviable position of the ENGINEER when the fog was encountered."

7. The subject collision, with resultant fire and loss of life, as well as similar collisions in the past have in large measure been caused by the narrowness of the channel and inadequate anchorage grounds in the Delaware River and Bay area, particularly during inclement or foggy weather when anchorage for the safety of the vessel becomes necessary. Action against the licenses of the masters and pilots involved or other disciplinary action will not correct the basic or underlying cause for the collisions in this area. When approved, a copy of this and the Board's report will be forwarded to the Secretary of the Army for his review, in view of the provisions of the Act of Congress approved on 13 June 1902 (Sec. 1 U.S.C. Title 33).

Chief, MVI Division, to
Commandant

MVI
23 July 1954
(ATLANTIC DEALER --
ATLANTIC ENGINEER - a-3 Bd)

8. It is recommended that the Findings of Fact, Conclusions and Recommendations of the Marine Board of Investigation convened to investigate subject casualty be approved.

P. A. OVENDEN

FIRST ENDORSEMENT ON MVI memorandum of 23 July 1954

M
29 July 1954

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

Forwarded, recommending approval.

(signed) H. C. Shephard
H. C. SHEPHEARD

APPROVED: 30 JUL 1954

(signed) A. C. Richmond

A. C. RICHMOND
Vice Admiral, U. S. Coast Guard
Commandant

REPORT OF A
MARINE BOARD OF INVESTIGATION

Convened at the
Marine Inspection Office, United States Coast Guard
Third Coast Guard District
Room 803 Custom House, Philadelphia, Pa.

on

4, 5, 6, 7, 8, 14 & 15 January & 16 February, 1954

To Inquire Into and Investigate the Circumstances Surrounding The
Collision between the SS ATLANTIC ENGINEER and SS ATLANTIC DEALER
With Loss of Life in the Delaware River
on 30 December, 1953

MMIS 11/40

The Board arrived at the following Findings, Conclusions and Recommendations:

FINDINGS OF FACT:

1. At 0332 1/2, 30 December 1953 during fog, the tanker ATLANTIC DEALER collided with the tanker ATLANTIC ENGINEER while she was anchored in the center of the channel in the Delaware River at the intersection of New Castle and Bulkhead Bar Ranges. As a result of the collision, the ENGINEER's side was punctured, permitting bulk crude to spill into the river between the two ships, a circumstance which resulted in fire aboard both vessels.
2. The DEALER incurred bow damage between the main deck line and the 16 ft. water line and fire damage along the entire length of her hull and superstructure on the port side. The ENGINEER sustained a hole between the nine foot to the thirty-one foot water lines at No. 7 port cargo tank and suffered fire damage along her port side from about amidships to the stern including the port side of the after deck house.
3. Nine crew members from the DEALER were unaccounted for following the disaster and of these, six bodies have been recovered and the others are missing and presumed dead. Several crew members of both vessels sustained injury of a minor nature but none were reported as being incapacitated for any period.
4. The known dead with their next of kin as shown on the crew list of the ATLANTIC DEALER are as follows:

	Age	
Joseph F. Vogt, 3rd Asst Engineer	■	Father: ■■■■■■■■■■
Frank L. Pomeroy, Ordinary Seaman	■	Mother: ■■■■■■■■■■
John I. Waller, Wiper	■	Wife: ■■■■■■■■■■
Louis S. Williams, Deck Maint.	■	Mother: Mrs. ■■■■■■■■■■
Edilberto P. Jamias, Messman	■	Sister: Mrs. ■■■■■■■■■■
James Laughlin, Messman	■	Wife: ■■■■■■■■■■

MMSS 11400

Missing and presumed dead are:

	Age	
██████████, Able Seaman	██████████	Mother: ██████████
██████████, Steward	██████████	Wife: ██████████
██████████, Messman	██████████	Mother: ██████████

5. The weather at the time of the casualty was dense fog, visibility estimated five to eight hundred feet, wind light and variable. The tide was the first of the flood with a 1.5 knot current running. According to the records of the U.S. Geological Survey for the period, the water temperature was 41 deg. F. plus or minus two degrees.

6. The SS ATLANTIC ENGINEER, O.N. 261167 is a steam driven tank vessel of 19,498 gross tons, length 628 feet, breadth 85 feet, depth 45 feet, built in Camden, N.J. in 1951 and develops 16,500 horsepower. She is owned and operated by the Atlantic Refining Co., 260 South Broad Street, Philadelphia, Pa. and at the time of the casualty, was under the command of ██████████ License No. ██████████ of ██████████ of the Pilots Association for the Bay and River Delaware, was aboard in the capacity of pilot under authority of his Coast Guard Pilot's License No. ██████████.

7. The SS ATLANTIC DEALER, O.N. 248208 is a T-2 type tank vessel of 10,636 gross tons, length 504 feet, breadth 68 feet, depth 39 feet, built in Chester, Pa. in 1945 and develops 6,600 horsepower. She is also owned and operated by the Atlantic Refining Company and at the time of the casualty was under the command of ██████████ who was also acting as pilot under authority of his license No. ██████████ with pilotage endorsements for the Delaware River.

8. Both vessels were equipped with radar.

9. On 25 December 1953, the ATLANTIC ENGINEER departed Harbor Isle, Texas with a full load of crude oil en route Philadelphia, Pa. All navigation and steering gear was in constant use and performed perfectly throughout the voyage. Following arrival at Overfalls, the pilot boarded the vessel at 1652 EST 29 December 1953 at which time the salt water draft was noted as 33 ft. 7 inches both fore and aft. The vessel then proceeded to an anchorage in the vicinity of Brown Shoal in order to delay arrival at Philadelphia until 0500 30 December, it being necessary to dock the vessel on a rising tide due to her size.

MMMS 11400

10. At 2200 with good visibility prevailing the vessel was again under way under the con of the pilot. In accordance with the usual practice in inland waters the radar was turned on and functioned satisfactorily, up until the time of the collision. Visibility began to deteriorate on the Liston Range and continued to decrease gradually up the Reedy Island Range. Three vessels were observed in No. 3 anchorage as the ENGINEER passed going half ahead at about eight knots. Rounding Buoy 1N into the New Castle Range fog signals were begun as forward visibility began decreasing rapidly. Abeam of Reedy Point, engines were stopped at 0214 and the master was summoned. After a brief conversation both pilot and master agreed it would be unwise to attempt navigation in the fog. The Bulkhead Bar Range was selected as the best position for anchoring since the channel is 1500 feet wide at that point providing sufficient clearance for the vessel to swing without grounding. Pea Patch Island Light (Official Name - Fort Delaware Light, 1953 L.L. No. 1739) came into view $3/4$ of a mile distant but was obscured intermittently by fog patches. Engines were put slow ahead at 0220 and Pea Patch Island Light was abeam at 0221. The anchoring detail was summoned to the bow and the Second Mate went forward to stand by until the Chief Mate arrived. At 0224 the vessel anchored with three shots at the water's edge. The running lights were secured, anchor lights turned on and the engine room was advised to keep the engines ready. The bow lookout was detailed to ring anchor bells on the bow and as an extra precaution, a man was ordered aft to sound the International gong. The fog lifted momentarily after anchoring revealing the New Castle Ranges nearly in line. With the assistance of the radar the position of the vessel was placed at about the intersection of the New Castle and Bulkhead Bar Ranges. This position was verified by bearings later that morning. The radar was continued in operation and several vessels were observed apparently anchored on the Cherry Island and Deepwater Ranges, one of which later proved to be under way downbound but did not pass until after 0500 that morning.

11. After anchoring the vessel swung slowly to the flood tide and had nearly reached her down bound heading when the pilot got permission to lay below. The master remained on the bridge with the Second Mate checking the radar at regular intervals.

12. The vessel that later proved to be the ATLANTIC DEALER appeared on the radar scope four miles down river about abeam of Reedy Point heading upbound. When the target was 2 miles distant, fog signals of a vessel under way were heard and identified as emanating from the approaching vessel. The vessel's progress was observed on the scope as they

continued to close and appeared to be navigating at or near the center line of the channel. As the whistle signals became louder, the lookout on the bow rang the fog bell harder and more frequently and the master and the second mate in the meantime alternated between the radar and the pilothouse windows where they watched for the DEALER's first appearance. The DEALER's lights finally loomed out of the fog two points on the port bow between five and eight hundred feet away. Although at that instant her range lights were open slightly to the right, she appeared to be swinging to her own starboard and it seemed at first she would pass clear port to port. Her speed was variously estimated by ENGINEER witnesses as being between three to six knots. Her swing was too slow, however, and it soon became evident collision was unavoidable as the anchor was heard going down, followed by danger signals. The master of the ENGINEER turned on the general alarm and within seconds the bow of the DEALER struck the ENGINEER on the port side in way of No. 7 port cargo tank at about a 45 degree angle. The DEALER's bow glanced off after impact and she passed down the port side with about 15 ft. of clearance. Flames appeared on the water between the two vessels almost immediately after contact. In quick succession, the second mate was ordered to ready No. 1 boat and lower it to the embarkation level, the radio officer was directed to send a distress message and the remainder of the crew was ordered to fight the fire. The fire pump was in operation within a minute but full pressure on the hoses was not immediately obtained as a result of the fire lines having been drained and left open in anticipation of freezing weather. Within five minutes the fire on the water had spread to the vessel igniting the paint on the hull and superstructure aft along the port side. Fed by oil from the ruptured tank, the fire on the water had reached its height about 15 minutes after impact with flames estimated to be well over 100 feet in the air. Fog nozzles were used first but had little effect on the fire on the water which was finally extinguished by a blanket of foam. Employment of the fixed foam system was occasioned by some delay, but foam was brought into play by transferring the mechanical foam nozzles to the regular water system and utilizing the foam pickup feature from five gallon foam cans. By 0430 the fire aboard the vessel was under control with the exception of isolated smoldering fires in various compartments aft on the port side. These were completely extinguished by 0830 in the morning.

13. There was some confusion among the crew members aboard the ENGINEER at the outset but this was quickly overcome with a minimum of lost time when fire fighting efforts were organized.

14. Several of the unlicensed personnel took it upon themselves to lower No. 3 lifeboat to the water's edge and descend the ladder into it. The boat was not cast off, however, and when the men were advised that others were fighting the fire, they returned aboard and assisted.

15. The personnel in the engine room remained at their stations until forced to retreat into the shaft alley by a heavy concentration of smoke which, in spite of all fans and ventilators being closed, continued to fill the area. It was later determined that much of this smoke had poured through the vents in the skylight coaming. The boilers were kept in operation in order to keep the fire pump running and each man in turn checked the boiler fires and water level every few minutes. The chief engineer, after advising the master of the situation and with his permission, ordered the men topside. Again each man in rotation returned to the fire room periodically to check the boiler operation. When the bulk of the fire topside had been extinguished the smoke in the engine room spaces cleared sufficiently to allow the men to return. Small fires were then discovered in various spaces abutting the skin of the ship on the port side and were extinguished without difficulty.

16. At 1349, 30 December, the ENGINEER was again under way and docked at Philadelphia without further incident.

17. The ATLANTIC DEALER, with a full load of commercial gasoline, departed Port Arthur, Texas on 25 December 1953 enroute Philadelphia, Pa. All navigation and steering gear were in constant use and functioned satisfactorily throughout the voyage. Arrival at Overfalls L.V. was recorded as 2318 on 29 December and a mean salt water draft of 28.8 ft. was noted. Under the con of the master, the vessel proceeded up the Delaware Bay. The radar had been turned on coming up the coast and was continued in operation. Visibility in the lower Bay was estimated at 10 miles, decreasing gradually to four miles upon entering the Reedy Island Range. At that time, several ships were sighted anchored in and out of the channel at the upriver end of the Reedy Island Range. Continuing up the Reedy Island Range, visibility decreased further to three miles and as the DEALER neared the anchored vessels, speed was reduced and the chief mate was summoned to the forecastlehead to stand by the anchor. An unidentified supertanker was anchored in the channel east of No. 3 anchorage necessitating leaving the channel on the western side in order to pass clear. Clearing the group of anchored vessels the DEALER then returned to the channel. The New Castle Range was entered with Buoy 1N abeam to port, still proceeding at reduced speed. After steadying down on the New Castle Range, an unidentified freight vessel which

appeared to be coming up the old Fern's Point Range was observed overtaking on the port quarter. The DEALER was about two miles below Pea Patch Island Light when the mate on watch, Second Mate [REDACTED], reported a radar target at eight miles dead ahead. This report was in error, however, and [REDACTED] did not remember until later that he had previously shifted the radar to the four mile scale and that the target in reality was only four miles off. Nevertheless, the master acknowledged the report but did not verify it. With Pea Patch Island Light then clearly visible the master called to the bow and advised the Chief Mate that the vessel would not be anchoring immediately and suggested he stand by on the bridge. Continuing up the New Castle Range the overtaking freight vessel reached a point close aboard on the port bow and then dropped aft again. Approaching Pea Patch Light the DEALER was steaming half ahead at an estimated 10 knots over the ground on the channel course of 334 deg. T. Pea Patch Light was abeam to port at 0323 estimated 100 feet off when it was noticed that the forward visibility was decreasing rapidly and fog signals were begun. At about that time the chief mate who was still on the bridge, stepped over to the radar. Although the radar had been operating to the complete satisfaction of the master and the second mate up until that time, the chief mate observed the targets dragging on the scope, however, the channel showed up clearly. Without attempting to adjust the receiver or to shift to another range, he observed a large target about 2 degrees on the port bow 1.7 miles distant which he placed "below the turn" in the river at the end of the New Castle Range. The chief mate was of the belief he reported the bearing and distance of this target but neither the master, second mate or helmsman recalled hearing it. At about this same time, still in the vicinity of Pea Patch Island Light, the fog signals of a vessel under way were heard 2 or 3 points on the starboard bow and were estimated to be approximately four miles away. The chief mate continued to observe the radar and when the target ahead had closed to 1.3 miles with the bearing unchanged he again reported it to the master. The master thereupon went to the chartroom, measured off a mile and a half from his estimated position half way between Pea Patch Light and Buoy 1N. Although this would have placed the target in the upper end of Bulkhead Bar Range Channel the master checked the radar and being unable to distinguish any targets due to the ghosting effect, he assumed the target was a light on the bulkhead two miles ahead of the vessel. In the meantime, visibility had decreased to 1/2 mile, the fog signals of the vessel ahead were getting nearer and the bearing seemed to be closing on the bow. The master again ordered the chief mate to the forecathlehead, stating he intended to anchor just north of Buoy 7-N outside the western edge of the channel. At 0327 engines were put slow ahead and at 0328.5 they were stopped as the fog continued to thicken. Buoy 7-N was left abeam to port 100 feet off and the engines

were put half astern from 0330 to 0330.5 to help kill the headway without losing steerageway. At 0331 engines were again rung half astern for one half minute and with the vessel then about 2000 feet beyond Buoy 7-N the wheel was ordered hard left in order to swing around to the tide and out of the channel prior to letting go the anchor. The vessel had hardly started to swing to the left and the master had just ordered stop engines at 0331 1/2 when a white light appeared out of the fog about 800 feet away slightly on the port bow. Believing it to be a light on the downbound vessel from which the fog signals had been heard, the master instantly ordered hard right, followed by slow ahead and half ahead in the hope the bow would swing back and the two vessels would pass port to port. Within seconds the deck lights of the vessel which later proved to be the ATLANTIC ENGINEER became visible ahead and realizing collision was imminent, engines were backed full astern at 0332 and the danger signal was given. The chief mate was at the eye of the ship at the time and saw the light ahead at about the same instant as the master. Turning immediately, he ran to the anchor windlass, shouted to the bridge to the effect "vessel ahead, full astern" and on his own motion dropped the starboard anchor as the danger signal was being sounded. Closing on the ATLANTIC ENGINEER it was apparent she was at anchor headed downbound lying at a 45 degree angle across the bow of the DEALER less than a ship length away. In spite of the avoiding action the DEALER's heading changed little, and with her engines going full astern, her bow struck the port side of the ENGINEER in way of No. 7 tank at 0332 1/2. The impact was described as glancing and the two vessels separated immediately with the DEALER passing down the port side and parallel to the ENGINEER only a few feet apart. Within seconds after the collision, the general alarm was sounded as fire broke out on the water between the two vessels beginning at the bow of the DEALER and extending aft as she continued to draw astern of the other vessel. By the time the DEALER cleared the stern of the ENGINEER, the flames had reached a height of 60 feet along the DEALER's port side. In an effort to draw away from the fire, engines were ordered slow ahead followed immediately by half ahead at 0335 1/2. The radio officer appeared on the bridge, was advised of the situation and directed to contact any station he could raise for assistance. With the engines half ahead, the rudder still hard right and the starboard anchor dragging, the stern began swinging around to the left. As a result of the swing the flames along the port side swept inboard towards the center line of the vessel and extended around the stern under the counter to the starboard quarter.

18. Prior to entering the Bay, the fire hydrants on deck had been opened in anticipation of freezing weather and scupper plugs were

already in place preparatory to unloading. When the fire pumps were turned on following the general alarm, the deck flooded and water spilled over the sides extinguishing nearly all the burning paint work on the vessel's hull approximately five minutes later. As the vessel continued to come around the engines were stopped at 0337 1/2. The fire on the water appeared to be concentrated about 800 feet on the starboard bow and at the same time several men in the water were observed 300 feet off outlined against the flames. The master believed these men were off the other vessel and the fact that they were DEALER crewmembers did not become apparent until later. Glancing aft on the starboard side, the master saw men attempting to launch Nos. 2 and 3 lifeboats and others grouped on deck apparently dazed and indecisive. The master thereupon ordered the men away from the boats and directed them to fight what blaze remained assuring them the cargo was not on fire. All hands responded to the order immediately and proceeded to man fire fighting equipment. While isolated fires were being fought in lifeboats and other locations on deck, the burning oil on the water forward appeared to be drifting toward the vessel. The chief mate was sent forward to heave in the anchor and at 0342 engines were ordered full astern. In the meantime No. 1 boat was ordered prepared for launching in an attempt to save the men in the water. The chief mate was unable to raise the anchor. The fire on the water forward went out shortly thereafter and at 0347 the engines were stopped. The vessel then lay riding to the flood tide on a heading of about 325 deg. T. with Buoy 4-B abeam to port about 50 feet off. No. 1 lifeboat was ready for launching soon after the engines were stopped and under the command of the second mate departed in search for survivors. The chief engineer and the third mate were recovered from the river but due to darkness and fog no other survivors were heard or sighted. The Chilean freighter COPIAPO was encountered under way up river of the DEALER and after stopping took the survivors and boat crew aboard. Further search by the boat crew was considered useless, however, power boats from the Delaware State Police Rescue Squad were on the scene and continued to look for survivors.

19. Aboard the DEALER all fires were extinguished by 0430. A list of missing crew members was compiled and furnished to the Delaware State Police. The COPIAPO established radio communications offering the services of the ship's doctor and advising that they had the boat crew and two survivors aboard. After daybreak the lifeboat, together with boat crew and survivors were returned to the vessel. When the weather cleared the DEALER got under way at 1253 and proceeded to Philadelphia without further incident.

CONCLUSIONS:

1. It is considered that the failure of the master of the ATLANTIC DEALER to make adequate use of the radar before proceeding into the fog constituted the initial error leading up to this collision. There can be little doubt that the target the second mate observed at four miles and mistakenly reported as eight miles was in fact the ATLANTIC ENGINEER as was the target later observed by the chief mate. Although the presence of fog ahead became apparent while approaching the light on Pea Patch Island and the decision to anchor was made when that light was ahead, no effort was made to check the radar by either the second mate or the master until the chief mate reported the target 1.3 miles ahead. According to the master, the vessel at that time was estimated to be half way between the light on Pea Patch and Buoy 7-N, a position which proves to be almost exactly 1.3 miles from the place the ENGINEER was anchored. Whether or not the radar returns were so poor as to prevent the master's identification of the target reported by the chief mate, it must be assumed that reception was sufficiently good prior to that time to enable the chief mate to track the target from 1.7 miles to 1.3 miles and also impress him with the need to call that particular one to the master's attention out of all the others within range. In any case the master's unwarranted assumption that the chief mate's report was in reality a beacon on the bulkhead two miles ahead did not reflect the care and prudence required by the circumstances particularly since careful plotting would have provided timely notice of the anchored vessel. In this connection it is also considered significant that no effort was made to focus the receiver, change the range scale or otherwise attempt to improve radar reception. In addition the master admitted that following the casualty the radar was noisy indicating some malfunctioning but was nevertheless useable.

2. Since the master was unaware of the presence of the ATLANTIC ENGINEER it must be assumed he was navigating with regard to the vessel from whence the fog signals were heard. Unfortunately the DEALER's navigation in this respect appears to be no less faulty. Having heard the fog signals on the starboard bow and determined the bearing was closing the assumption that the vessel was downbound was logical since such is the configuration of the channel. According to the master, the DEALER was then navigating on her own lefthand side of the channel, passing both Pea Patch Island and Buoy 7-N an estimated 100 feet off. The possibility of encountering the downbound vessel before the anchoring position was reached could not be overlooked and had the other vessel continued down river the presence of the DEALER on the wrong side of the channel would unquestionably have embarrassed her navigation. This contention is supported by the master himself who testified his first impression upon sighting the lights of the ENGINEER was that he had in fact met the

downbound vessel. He claimed further that it was for this reason he shifted rudder to hard right and put engines half ahead in an effort to clear port to port.

3. The Board is also of the opinion that excessive speed on the part of the DEALER under the prevailing conditions of fog and low visibility that contributed to this casualty. At the time the light on Pea Patch Island was abeam the DEALER was proceeding half ahead and based on the previous bells it is evident she had attained maximum half speed through the water. The master's estimate of the speed at this time was eight knots with a 1.5 knot current under foot which was maintained until 0327 when speed was reduced to slow ahead followed by stop at 0328.5. During the three minutes remaining until the ENGINEER was first sighted the engines were stopped for two periods totaling two minutes and were going half astern for two periods of 30 seconds each. It is considered that these engine orders were insufficient to reduce the speed of the DEALER to safe limits. In this regard it is noted that the distance of 1.6 miles between the light on Pea Patch Island and the scene of the collision was traversed at an average speed of about 10 knots. By similar computation using 800 ft. as the best estimate of the distance traveled from the moment the lights were first sighted the speed of the DEALER would average out to over five knots which in itself could hardly be considered prudent under the conditions obtaining. The failure of those aboard the DEALER to hear the fog bells of the ENGINEER cannot be explained and the lookout who might have given more adequate testimony in this regard was lost. The Board is of the opinion however that the chances of hearing the ENGINEER's bell would have been greatly increased by a more moderate speed.

4. The decision of the ENGINEER to anchor in the Bulkhead Bar Range Channel being predicated on the safety of the vessel and the result of considered judgment on the part of both master and pilot cannot be criticised. The Board is well aware of the absence of safe anchorages available to vessels of her size and draft between Bombay Hook and Marcus Hook. Upon passing the Bombay Hook anchorage, navigators of the "super" cargo carriers are committed to continue or if anchoring becomes mandatory it must be accomplished in the channel. The problem is further complicated by the fact that these vessels are, with the exception of a few short reaches, almost as long as the channels are wide. Such was the unenviable position of the ENGINEER when the fog was encountered. When the necessity for anchoring had been agreed upon by pilot and master the Bulkhead Bar Range Channel with its 1500 ft. width provided the first available position of sufficient dimensions to permit the vessel to swing to the tide without fear of grounding. The anchoring accomplished, her statutory obligations were

discharged by showing the proper lights and sounding the required anchor bells. In this particular case, however, where the continued approach of the other vessel was readily apparent in the radar, the Board cannot help but feel that use of a supplementary signal might have averted the collision. While Article 12 of the Inland Rules permits the use of a flare up or detonating signal the Board is not aware of any required equipment aboard a tank vessel of this class which might serve the purpose, or any means by which such signals might safely be improvised. The use of the ship's whistle was therefore the only practical means available to the ENGINEER of calling attention to her presence. The need for such a whistle signal appears to be recognized by the newly adopted International Rules but in the absence of any statutory provisions in this instance it could reasonably be argued that the sounding of an unauthorized whistle signal could tend to prevent rather than promote mutual understanding. In any case it is considered the ENGINEER was entitled to presume that the fog bells as required by statute would provide ample warning to the approaching vessel and further that the DEALER was navigating according to law, regulating her action so as to avoid possible danger.

5. Although it is believed that any additional precautions on the part of the ENGINEER would not have prevented or reduced the effects of the collision a better state of readiness could have been attained. Notwithstanding the fact that 500 feet or more of navigable channel lay to either side, there was considerable danger in this situation which was apparently recognized by the master. The Board feels constrained to point out that the care to be exercised must be in proportion to the danger to be avoided. To this end preparations to wear chain and possible consideration of maneuvering on the engines in anticipation of a close passing, would have more fully reflected the due care and diligence that marks the prudent navigator.

6. The varied testimony of the DEALER witnesses concerning events after the collision prevents an accurate determination of the time elapsed between the master's first knowledge of the men in the water and the order to launch the lifeboat in a rescue attempt. Since those who abandoned the DEALER presumably jumped from the starboard side aft, their relative positions forward of the starboard beam when first sighted by those on the bridge would indicate the vessel had by then completed half or more of her swing to the downbound heading. The master at that time found his crew for the most part in a state of mental aberration acting independently, if at all, and was simultaneously faced with fire aboard and the added hazard of burning oil apparently drifting down on the vessel. Whether or not the master believed the men in the

water were from the DEALER or the other ship, his primary responsibility was to his own vessel and those on board. It is therefore believed the master cannot be criticized for first directing the efforts of the crew toward saving the vessel. In any case the fact that two persons were recovered from the river alive in spite of the water temperatures would indicate that even under such adverse circumstances timely action was taken to effect rescue.

7. The Board also took notice of the conduct of Paul N. Skipper, Bk [REDACTED], Chief Engineer and Rolf L. Eklund [REDACTED] Third Mate of the DEALER, both of whom abandoned ship with no apparent thought of their responsibility towards the vessel or other crew members. While similar conduct by unlicensed personnel may be partially explained by inadequate training and the absence of positive leadership, there appears to be no justification for such action on the part of officers upon whose judgment and direction the fate of a vessel and her crew, would in an emergency, largely depend. Accordingly, the Board instituted disciplinary proceedings against both of these officers and the cases were referred to the OCMI, Philadelphia for action under R.S. 4450 as amended.

8. Similar criticism can be directed at the DEALER's Chief Mate, Thomas H. Manley III Bk [REDACTED] who failed to take immediate charge at the scene of the emergency as required by the station bill or otherwise make any effort to exercise his authority as the leading seaman aboard the vessel until after the order to fight the fire had been given by the master. Although his actions were ameliorated somewhat by the fact that he performed satisfactorily after overcoming his initial aberration, he was nevertheless charged by the Board under the provisions of R.S. 4450 as amended and his case was likewise referred to the OCMI, Philadelphia for action.

9. In spite of the foregoing, the Board recognized the exemplary conduct and devotion to duty exhibited in many instances aboard both vessels without which the loss of life and property damage could conceivably have been far greater.

10. While the record indicates that both vessels complied with the law requiring emergency drills the Board nevertheless concurs with the opinions expressed by several witnesses that greater realism in the execution of such drills provides one of the most practical means available to ships' officers for the efficient organization and training of all hands to meet emergencies. Beyond that, however, the needless loss of life resulting from the premature abandonment by some crew members aboard the DEALER again highlights the need for a complete understanding of the problem of fire aboard ship and the realization that fire, even aboard

tank vessels, can be coped with successfully by prompt and efficient use of the fire fighting equipment provided. In this connection, it was noted that positive direction dispelled confusion and when proper use was made of the equipment provided the fire was readily overcome.

11. Notice was also taken of the fact that no means are provided for closing the fixed louvered vents in the coaming of the engine room skylight aboard the ENGINEER, a condition which permitted smoke to fill the engine room spaces eventually forcing the personnel therein away from their stations. It has since been learned, however, that the Atlantic Refining Company is presently preparing plans for the correction of this deficiency aboard the ENGINEER and others of her class and under the circumstances no further action appears indicated.

RECOMMENDATIONS:

1. Based on the foregoing facts and conclusions adduced therefrom, the Board recommends that Captain Bennington, master of the SS ATLANTIC DEALER be charged with negligence under the provisions of R.S. 4450 as amended.

2. There being no evidence of any material failure and since the record is clear that all equipment functioned satisfactorily when properly used, it is recommended that no further action be taken and the case be closed.

(signed) L. H. Shackelford
L. H. SHACKELFORD
Captain, U. S. Coast Guard

(signed) R. Y. Edwards
R. Y. EDWARDS
Commander, U. S. Coast Guard

(signed) J. H. Hawley
J. H. HAWLEY
Lieutenant Commander, U. S. Coast Guard

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At 4:30 p.m. the Board adjourned to await the action of the Convening Authority.

(signed) L. H. Shackelford
L. H. SHACKELFORD
Captain, U. S. Coast Guard
Chairman

(signed) J. H. Hawley
J. H. HAWLEY
Lieutenant Commander, U. S. Coast Guard
Member and Recorder