

UNITED STATES COAST GUARD

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



MVI  
(GULFOIL - S. E. GRAHAM  
a-1 Bd)

20 MAR 1959

Commandant's Action

on

Marine Board of Investigation; collision of the tank vessels GULFOIL and S. E. GRAHAM, off Bull Point East Passage, Narragansett Bay, Rhode Island, 7 August 1958, with loss of life

1. 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, Opinions, and Recommendations, has been reviewed.
2. The SS GULFOIL and the M/V S. E. GRAHAM, both tankers, collided in a dense fog about 500 yards East Northeast of Bull Point Lighted Bell Buoy, East Passage, Narragansett Bay, R. I., at approximately 0553 EST 7 August 1958.
3. The inbound GRAHAM was fully loaded with gasoline; the outbound GULFOIL, was partially ballasted, with a number of empty tanks which were not gas free.
4. As the vessels approached the narrow entrance to Narragansett Bay between Conanicut Island and Newport Neck each was proceeding at reduced speed with radars in constant operation due to low visibility. Although the buoy on Bull Point was on the radar screen until close aboard, it had not been seen or heard on the GULFOIL and her Master was reluctant to alter course to the right, as the pilot proposed, until he had satisfied himself that his vessel was clear of the point. It had still not been sighted when the fog signals of the GRAHAM were heard on the starboard bow, close aboard, and shortly thereafter she loomed out of the fog scarcely fifty feet from the bow of the GULFOIL. Collision appeared imminent, and the general alarm was rung as the engines were ordered full astern.
5. On the GRAHAM, only the Master and the Helmsman were on the bridge, and there was no lookout on the bow as she proceeded cautiously toward the bay entrance. On the radar screen, the Master could see the Bull Point Buoy, a target close to it, apparently not moving and a much larger target (the GULFOIL) proceeding out. The GRAHAM's Master expected the larger target to alter course to the westward as she passed Bull Point Buoy ahead but he noticed the GULFOIL was not changing course as he heard her fog signals on the GRAHAM's port bow. He altered course to the right, heading for Fort Adams as each blast on the fog whistle appeared closer than the preceding one. Just before the collision he rang the general alarm.

6. The GRAHAM was dead in the water or nearly so when her No. 1 port cargo tank was penetrated by the bow of the GULFOIL, a circumstance which permitted her cargo of gasoline to escape and probably ignite through the impact. In the almost instantaneous fire which engulfed both vessels the crews were driven overboard and 17 crew members, among them the Master, of the GULFOIL were known to have lost their lives. Their bodies were recovered but one other disappeared and is presumed dead. Others of the GULFOIL crew suffered varying degrees of injury through burns and immersion, while those from the GRAHAM escaped relatively unscathed.

7. Shortly after the collision the GULFOIL grounded on Newport Neck in the vicinity of Fort Adams where her No. 8 tank, which was not gas free, exploded. The GRAHAM aflame from stem to stern drifted with the flooding tide into Narragansett Bay where she was grounded by vessels of the U. S. Navy and Coast Guard on the north end of Rose Island. The fires on both vessels continued to rage until the next day when they were finally extinguished by units of the Newport Naval Command and those of the First Coast Guard District. As a result of the collision, fires and explosions, both vessels incurred severe structural damage.

8. As the GULFOIL proceeded down Narragansett Bay she was preceded by the USCGC LAUREL with the former slowly overtaking the latter as the fog loomed ahead at Rose Island. Observing this situation and sighting the inbound GRAHAM in the radar the Commanding Officer of the LAUREL decided to close Bull Point Buoy and stop west of it until the congestion lessened at the entrance. While so doing the impact of the collision was clearly heard and a radar range bearing placed the site at 078 degrees true 500 yards from the buoy alongside.

9. The LAUREL was maneuvered so as to head east toward the position indicated by the radar and the voices of men in the water were soon heard. The ensuing rescue operations were timely and efficiently carried out and while so engaged a heavy explosion accompanied by a dull glow was observed in the fog in the direction of Fort Adams. This was probably the explosion of the GULFOIL's No. 8 tank. When all the dead and living in reach were collected, the LAUREL proceeded to anchor north of Fort Adams where they were placed in the care of medical help which had been summoned by radio.

10. She then proceeded in the direction of the drifting GRAHAM which was burning and being carried by the tide towards Rose Island while Navy tugs and fire boats fought the fire. The LAUREL put a tow line aboard and grounded her in a safe area where the fire was finally extinguished. The Board noted the excellent performance of duty on the part of the Navy and Coast Guard units involved in the rescue and firefighting operations on both vessels.

11. While inbound in the fog after delivering a pilot, the master of the pilot boat RHODE ISLAND heard the radio report of the LAUREL and noted the positions of the vessels on the radar. He proceeded to the scene at once, rescued four crew members from the water and searched the area between Fort Adams and Bull Point. Finding no more survivors Captain William J. P. Northrup landed the rescued at Newport. The Board recognized Captain Northrup's prompt participation in the rescue work.

12. Nine bodies were found on board the GULFOIL after the fire was extinguished; eight were recovered from the water and one was missing.

#### REMARKS

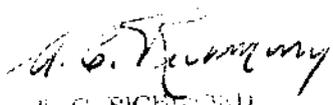
1. The recommendation proposing restrictions on the use of power lines to remote sections of a vessel to "in use" periods only does not appear to be supported by the record in this case. Sound engineering practice includes the deenergizing of nonessential circuits when not in use and past experience with similar casualties has shown that the heat generated by the impact of steel vessels is usually sufficient to ignite oil cargoes.

2. The consideration of hull openings as mentioned in the second recommendation is included in all vessel plan approval and, in this connection, it has been found that there exists as much need for speedy evacuation of interior spaces as for protection from fire or blast without, as was the instant case.

3. The conclusions of the Board that the master of the GULFOIL was responsible for the navigation of his vessel and that he failed to act on the advice of the pilot just before the collision is concurred in, but for these reasons it is also considered that the results of his acts or omissions were of his own making. On the one hand, the pilot lacked authority to enforce his orders, hence his services were limited to advising the master. On the other, the master could assume control of the navigation at any time and he evidently did so before the collision inasmuch as the mate at the telegraph testified he received all engine orders from the master. Other than that developed by the testimony of the pilot himself, the record lacks evidence to support the Board's indication of negligence. In view of the above, the Board has been directed to discontinue action against the pilot for any alleged negligence in this regard.

4. Those recommendations involving the performance of duty of certain Coast Guard personnel have been referred to the Coast Guard Board of Awards.

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

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

REPORT OF  
MARINE BOARD OF INVESTIGATION

convened at

Providence, Rhode Island

To inquire into the collision of the tank vessels GULFOIL and  
S. E. GRAHAM, off Bull Point East Passage, Narragansett Bay,  
Rhode Island, 7 August 1958, with loss of life.

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On 7 August 1958 at approximately 0653, Eastern Daylight Saving Time the Steam Tankship GULFOIL and the Motor Tankship S. E. GRAHAM were involved in a collision in the vicinity of Bull Point Lighted Bell Buoy Number One, East Passage, Narragansett Bay, Rhode Island, resulting in serious damage to both vessels and loss of life.

A Marine Board of Investigation was designated by the Commandant to investigate circumstances of the collision and the Board convened on 11 August 1958 and at subsequent dates.

After full and mature consideration the Board made the following findings:

1. That the Steam Tankship GULFOIL of Philadelphia, Pennsylvania, Official Number 251093, of 10,340 Gross Tons, owned by the Gulf Oil Corporation of 17 Battery Place, New York City, New York, left East Providence, Rhode Island in ballast for Port Arthur, Texas on 7 August 1958 at 0345, Eastern Standard Time. The draft forward was ten feet and the draft aft was twenty-four feet.
2. That the GULFOIL had discharged the last of a part cargo consisting of gasoline and household heating oil at East Providence, and upon departure from East Providence was not gas free.
3. That the GULFOIL proceeded down the Providence River and Narragansett Bay at normal harbor cruising speeds until in the vicinity of Rose Island.
4. That the GULFOIL was being navigated under the direction of Borden A. Tuell, licensed pilot; the vessel's Master using the radar; the Chief Mate on bridge watch; the quartermaster at the wheel and an ordinary seaman on lookout on the forecastle head, until shortly before the collision.
5. That at 0542, EST, Rose Island was abeam and visibility approximately one mile, and the engine was on half speed, the engine having been placed on half speed at 0538, EST.
6. That the GULFOIL was proceeding on a course of 175 degrees true from Rose Island abeam, with a fair tide. Thick fog was observed ahead obscuring Bull Point and the entrance to Narragansett Bay.
7. That the USCGC LAUREL out of Bristol, Rhode Island, proceeded ahead of the GULFOIL down the Bay; turned toward Bull Point Lighted Bell Buoy Number One and was maneuvering close to the buoy, waiting for the other vessels to pass. The Operations Officer was stationed at the radar.

8. That the GULFOIL entered this thick fog and her speed was reduced to slow (20 RPM) at about 0545 EST.

9. That after a short interval after entering the thick fog, the Pilot advised the Master that according to his calculation the GULFOIL should be at the buoy and that she should start changing course to the right. The Master, who was observing the navigation of the vessel on radar, said that they were not quite up to the Bull Point Buoy and that he would let the Pilot know when it was reached and directed the Pilot to watch for it.

10. That the pilot made no further changes or suggestions and stated to the Board that he believed he had been relieved by the Master.

11. That the GULFOIL was sounding the required fog signals.

12. That at 0551, EST, the engine of the GULFOIL was put on stop.

13. That at 0552, EST, the engine of the GULFOIL was placed on full speed astern due to the close proximity of another vessel's fog signals. Three blasts on the whistle were given at this time and the general alarm was sounded.

14. That at approximately 0553, EST, the S. E. GRAHAM was sighted on the GULFOIL's starboard bow approximately thirty feet away.

15. That within a matter of seconds the GULFOIL struck the S. E. GRAHAM on the port side in way of number one tank.

16. That the Motor Tankship S. E. GRAHAM, Official Number 244168, 1591 Gross Tons, owned by Graham Transportation Company of Gladwyne, Pennsylvania, left Newark, New Jersey with a full cargo of gasoline (900,000) on 6 August 1958 for Providence, Rhode Island.

17. That the S. E. GRAHAM prior to and at the time of the collision was being navigated by Karl Anderson, Master, using radar, who was not a licensed pilot for Rhode Island Sound or Narragansett Bay, and with the assistance of only one man, an able seaman, Frank R. Powell, at the wheel; Melvin J. Wroten as the engineer on watch, and Milton Barrowclough as oiler. There was no lookout stationed on the bow and no pilot on board for these waters.

18. That the S. E. GRAHAM was being navigated at various slow speeds, including bare steerageway, on magnetic courses of 60 to 70 degrees in a thick fog just prior to the collision.

19. That the S. E. GRAHAM detected the USCGC LAUREL on the two mile scale of the radar, shifted to four mile scale and detected the GULFOIL.
20. That the S. E. GRAHAM was sounding the required fog signals and heard the fog signals of the GULFOIL prior to the three blast signal from the GULFOIL and exchanged fog signals with that vessel.
21. That the Master of the S. E. GRAHAM stated he expected the GULFOIL to turn to the right; that he kept close to the shore line and maintained bare steerageway.
22. That the Master of the S. E. GRAHAM sighted the GULFOIL on his port bow approximately 50 feet off.
23. That seconds after sighting of the GULFOIL, she collided with the S. E. GRAHAM on the port side in the way of number one cargo tank.
24. That the general alarm on the GRAHAM was sounded upon hearing three blasts from the GULFOIL.
25. That the stem of the GULFOIL penetrated number one tank approximately 20 feet, allowing the gasoline to spill out.
26. That immediately upon contact, the gasoline was ignited in the form of a large fire ball and spread rapidly over the water around both vessels. The GULFOIL was obscured by fire and was not seen again by the S. E. GRAHAM.
27. That after the collision, the vessels separated, the GULFOIL grounding off Fort Adams and the S. E. GRAHAM drifting northward and grounding on Rose Island.
28. That the materiel damage to the GULFOIL from the collision consisted of slight dents on both sides of the vessel's stem and was of a minor nature and did not affect the vessel's seaworthiness.
29. That the materiel damage to the S. E. GRAHAM from the collision was extensive and consisted of an opening in the number one cargo tank from the port side inward for approximately 20 feet, and from the tank top (main deck) down for an undetermined number of feet.

30. That the GULFOIL was extensively damaged by fire and by an explosion in the number 8 cargo tank. The fire damage consisted of complete destruction of all outside lifesaving and fire fighting equipment and fittings. Interior damage consisted of burnt paint work, furniture, mattresses and clothing, and was general throughout both the midship's and after quarters.

31. That the material damage to the GULFOIL from the explosion in number 8 cargo tank, consisted of broken, twisted and distorted bulkheads, deck plating, deck strength members, hull plating, hull strength members and fixtures and fittings in the way of the damaged areas.

32. That the estimated damage to the GULFOIL was reported to be approximately one million dollars.

33. That the S. E. GRAHAM was extensively damaged by fire throughout the entire vessel, with the exception of the pumproom and the main engine room. The vessel was considered to be a total loss, the damage amounting to approximately \$500,000 for the vessel and \$100,000 for the vessel's cargo.

34. That the fire on the GULFOIL was extinguished at 1100 hours on 8 August 1958 by several naval vessels and damage control parties from various naval units.

35. That the fire on the S. E. GRAHAM was extinguished on the afternoon of 8 August 1958 by naval vessels.

36. That the GULFOIL appeared to remain in the initial grounding position for approximately 31 hours, with the stern in deep water (vessel's draft 24 feet aft) through several changes of tide until freed by tugs.

37. That the S. E. GRAHAM, still afire, drifted toward the south section of Rose Island and grounded in the vicinity of the light-house and tanks. It was feared that the S. E. GRAHAM might float off and drift toward the naval facilities at Newport. The USCGC LAUREL, recognizing the above, took the flaming S. E. GRAHAM in tow and beached it in a safe spot in the north end of Rose Island where it remained for several days before being freed by tugs.

38. The following crew were on board the GULFOIL upon departure from the Gulf Oil Docks at East Providence, Rhode Island:

(1) Borden A. Tuell, License No. 197 442, Borden Road, North Tiverton, Rhode Island (Pilot on board GULFOIL)

(2) Montrivell Eden, Bk-110 714, License No. 207433, 1931 11th Ave., Port Arthur, Texas.

(3) Raymond C. Day, Z-877 716, License No. 207633, 2329 5th St., Port Arthur, Texas.

(4) Alfred Clement, Jr., Z-223 825-D1, License Radio Off., 12532, 27 Penelope Place, Providence, R. I.

(5) Bernardino Cortez, Z-757 773-D1, 608 Houston Ave., Port Arthur, Texas.

(6) John R. Donovan, Z-1 091 125, License No. 210603, 1229 West 10th St., Erie, Pa.

(7) Melvin Guidry, Z-877 441, 4016 4th St., Port Arthur, Texas.

(8) Colbert D. Banks, Z-769 200, 504 East Northbay St., Tampa, Fla.

(9) Jeff D. Avant, Z-825 210-D1, Rt. 2, 1525 Clayborne Rd., Vidor, Texas.

(10) Harry P. Stillson, Z-83 833, 27 Wellman St., Beverly, Mass.

(11) William McPhatter, Z-499 028, 2851 East Adams St., Wilmington, N. C.

(12) Donald H. Pedersen, Z-66 999-D2, RFD, 193A Washington, St., Plainville, Mass.

(13) Henry Rose, Z-126 374, 299 Wichenden St., Providence, R. I.

(14) Joseph Childs, Z-210 890, 637 West Fayette St., Baltimore, Md.

(15) Alfred D. Pelletier, Z-364 780-D1, c/o Mrs. Mary Gratto, Carew St., Lewiston, Me.

(16) Gilbert A. Springfield, Z-628 373, License No. 211674, 865 Young St., Beaumont, Texas.

(17) Troy W. Turner, Z-429 291, License No. 212903, P. O. Box 62, Arcadia, S. C.

(18) Viggo E. Petersen, Z-416 275, License No. 232501, 1404 Brooklyn Ave., Brooklyn, N. Y.

(19) Edward M. Dean, Z-155 302, License No. 230573, 27 Norwood Ave., Staten Island, N. Y.

(20) Leroy Kennedy, Z-402 394, 1932 15th St., Port Arthur, Texas.

(21) Stafford McKenzie, Z-438 369, 263 West 114th St., New York, N. Y.

(22) Simale McDaniel, Z-989 647, 237 West 16th St., Port Arthur, Texas.

(23) Sam Williams, Jr., Z-825 138, 715 West 13th St., Port Arthur, Texas.

(24) Freddy Hamilton, Z-983 639, Box 291, Jeannerette, La.

(25) Manuel Z. Trevino, Z-133 212-D1, 612 Eliza St., Corpus Christi, Texas.

(26) Manuel De Franca, Z-915 369, 190 Chambers St., Boston, Mass.

(27) Samuel Greenwood, Z-225 849-D1, 361 Meridian St., East Boston, Mass.

(28) Arnold W. Stevens, Z-177 562-D2, 631 West 152nd St., New York, N. Y.

(29) William Cevil, Z-105 976, 633 Putnam Avenue, Brooklyn, N. Y.

(30) Robert B. Charles, Z-781 061, 1523 West Firth St., Philadelphia, Pa.

(31) Joseph J. Spencer, Z-683 967, 327 Sutton Ave., East Providence, R. I.

(32) Thomas King, Z-1 105 698, 79 Baruch Drive, New York, N. Y.

(33) Edmund Tyrrell, Z-1 104 889, 519 Chauncey St., Brooklyn, N. Y.

(34) Felix Dergent, Z-958 719-D1, 1938 Marian Ave., Port Arthur, Texas.

(35) John Medeiros, Z-305 497, 620 Pecos Ave., Port Arthur, Texas.

(36) John F. Smith, License No. 207469, 648 Naches Ave., Port Arthur, Texas.

(37) Raymond B. Byrne, License No. 208529, 3024 Jefferson St., Paducah, Ky.

(38) Aurelius B. Kearney, Z-929 647, 2116 Peabody Ave., Corpus Christi, Texas.

39. The following crew were on board the S. E. GRAHAM at time of collision (7 August 1958):

(1) Karl L. Anderson, Z-531 081, License No. 242372, 23 Ash Road, Chester, Pa.

(2) Milton H. Barrowclough, Z-365 844, 2556 Green St., Philadelphia, Pa.

(3) George B. Chadwick, Z-521 234, 1037 Morton Avenue, Chester, Pa.

(4) Charles E. Deagle, Z-1 060 344, Beaverlett, Va.

(5) Randolph Diggs, Z-1 060 467-D1, Susan Post Office, Mathews County, Va.

(6) William Fernald, Z-1 060 866, Mathews, Va.

(7) Warren Hadaway, Z-902 588, License No. 231 656, 211 Lockwood St., Eastport, Md.

(8) James C. Hudgins, Z-1 114 510-D1, Mathews, Va.

(9) Maxwell Hudgins, Bk-31 257, License No. 157019, Gwynn, Va.

(10) Frank Respass Powell, Z-850 776-D1, Grimstead, Va.

(11) John Quirk, Z-1 074 521-D1, Marlton Road, Woodstown, N. J.

(12) Robert G. Taylor, Z-973 012, New Point, Va.

(13) Melvin J. Wroten, Bk-106 003, License No. 167981, 204 Willis St., Cambridge, Md.

40. The following members of the crew of the GULFOIL lost their lives or are missing:

(1) Colbert D. Banks, Z-769 200

- (2) William Cevil, Z-105 976
- (3) Raymond C. Day, Z-877 716
- (4) Edward M. Dean, Z-155 302
- (5) Manuel De Franca, Z-915 369
- (6) John R. Donovan, Z-1 091 125
- (7) Montrivell Eden, Bk-110 714
- (8) Freddy Hamilton, Z-983 639
- (9) Leroy Kennedy, Z-402 394
- (10) Thomas King, Z-1 105 698
- (11) Stafford McKenzie, Z-438 369
- (12) William McPhatter, Z-499 028
- (13) John Medeiros, Z-305 497
- (14) Viggo E. Petersen, Z-416 275
- (15) Joseph J. Spencer, Z-683 967
- (16) Arnold W. Stevens, Z-177 562-D2
- (17) Edmund Tyrrell, Z-1 104 889 (Missing)
- (18) Sam Williams, Jr., Z-825 138

41. That nine bodies were found on board the GULFOIL as follows: Seven in the after quarters; one on the bridge and one in an undetermined location. Eight bodies were recovered from the water. One seaman is still missing, Edmund Tyrrell, Messman.

42. That several crew members of the GULFOIL were injured or sustained burns of various degrees.

43. That the crew of the S. E. GRAHAM jumped overboard and started swimming away from the vessel.

44. That none of the crew of the S. E. GRAHAM suffered serious injuries or loss of life.

45. That the bearing and distance of the collision from the immediate vicinity of Bull Point Lighted Bell Buoy Number One was observed on the radar screen of the USCGC LAUREL.

46. That the location of the collision was 78 degrees true, 500 yards from Bull Point Lighted Bell Buoy Number One.

47. That the S. E. GRAHAM was being navigated in violation of 46 USC 364 in that the vessel was not under the control of a licensed pilot.

48. That the S. E. GRAHAM was not being navigated in accordance with Article 29 of the Pilot Rules for Inland Waters in that the vessel was not provided with a proper lookout.

49. The personnel of the two vessels were rescued or recovered as follows:

	Survivors	Bodies
USCGC LAUREL	11	2
Pilot Boat Rhode Island	4	
CG 40522	6	
CG 36453	1	1
Navy Craft	5	3
Jumped or slid from bow of GULFOIL (after grounding)	5	1 (died 8/8/58)
Found on board GULFOIL		9
Washed ashore 19 August 1958		1
Missing		1
TOTALS (51)	33	18

50. The Coast Guard units participating in the search and rescue operations were:

USCGC LAUREL - On scene Commander  
USCGC HORNBEAM  
USCGC LEGARE  
CG 83486  
CG 64309  
Boats from Lifeboat Stations - Principally Castle Hill  
Lifeboat Station, Newport, Rhode Island

51. The fire on both GULFOIL and GRAHAM was brought under control and extinguished by naval units and Navy personnel who undertook the primary role in the fire fighting. During the course of the fire fighting action on the GRAHAM, the tugs and fireboats were

nosed into or alongside the vessel and backed away occasionally only to extinguish burning fenders. The action often involved landing personnel on board the flaming GRAHAM to properly direct the streams of foam being used. Approximately half the GRAHAM cargo of gasoline was still intact when the fire was extinguished. In addition to the fire fighting and surveillance, Navy craft rescued 5 persons and recovered 3 bodies. The naval units participating were as follows:

YTB 145 }  
 YTB 217 } . . . . Fire fighting on GULFOIL

YTB 280 }  
 YTB 546 }  
 YTB 174 }  
 YTB 175 }  
 YTB 381 } . . Fire fighting on S. E. GRAHAM  
 YF 864 }  
 USS LUISIANO YTF 156 }  
 Party from USS SALAMONIE (AO 26) }  
 Party from Navy Fire Fighting }  
 School, Newport, R. I. }

YTL 600 ) . . . Transportation and Dispatch Boat

YTB 272 ) . . . Supplies

10 Rescue Boats (Boat Pool) ) . . Search and Utility Duties

52. Aircraft were used after the collision to conduct search for survivors, to transport fire fighting supplies (chiefly foam) and to transport burned victims to U.S. Public Health Service Hospital, Brighton, Massachusetts. The following aircraft were involved:

- 2 Navy helicopters - Quonset Point, R. I.
- 1 Coast Guard helicopter (1325) - Salem Air Station, Salem, Massachusetts
- 2 Air Force helicopters - Otis Air Force Base, Cape Cod, Massachusetts
- 2 Coast Guard UF (2134 and 7240) (Grumman Albitros) - Salem Air Station, Salem, Mass., and Quonset Point, R. I.

The Board expressed the following OPINIONS:

1. That the GULFOIL was less than 500 yards off Rose Island when abeam, at which time the visibility was approximately one mile.

2. That shortly thereafter a thick fog set in which prevented the visual sighting of Bull Point Lighted Buoy. The Chief Mate was on the starboard wing of the bridge looking and listening for the buoy in the fog. The buoy was operating satisfactorily but, due to a calm sea, was not ringing strongly.
3. That at 0538 EST, the GULFOIL was proceeding at between 10 and 12 knots when 1/2 speed was ordered on the engine.
4. That at 0545 EST, the GULFOIL was proceeding at about 8 knots when slow speed was ordered.
5. That the GULFOIL was proceeding at about 6 knots when stop was given at 0551 EST, approximately two minutes before the collision.
6. That the GULFOIL was making approximately 5 knots of speed at the time of the collision.
7. That the S. E. GRAHAM was nearly dead in the water at the time of the collision.
8. It was apparent from the testimony that just prior to the time of collision, there was not a clear understanding between Master and Pilot as to which one was controlling the movements of the vessel.
9. That the proximate cause of the collision between the GULFOIL and the S. E. GRAHAM was faulty navigation on the part of the GULFOIL, coupled with excessive speed in low visibility.
10. That the faulty navigation of the GULFOIL was the responsibility of the Master who failed to take advantage of all available fixed radar targets in such immediate area which could have been used to definitely fix the position of his vessel, and thereby inform him that his vessel was on his left or eastward side of the normal course of down bound vessels.
11. That the Master of the GULFOIL did not act on the advice of the Pilot to change course to the right but relied on his own radar observations which he apparently did not interpret correctly.
12. That the Master of the GULFOIL, by acting as his own radar observer, could not give full and undivided attention to his proper responsibility of being in overall supervision of the operation of his vessel.

13. That the action of the Master of the GULFOIL in delaying a change in course did not relieve the Pilot of his responsibility to further advise the Master, and the Pilot's failure to do so, and particularly to caution the Master as to the possible danger of grounding the vessel unless a turn was initiated, amounted to inattention to duty on his part and was not that of the normal custom to be expected in the relationship between Master and Pilot.

14. That the Pilot of the GULFOIL in the performance of his duty was in control of the navigation of the vessel from the time it left the dock at Providence until the time collision was imminent, and since the vessel was at least two hundred yards to the east of the normal outbound track and was going at an excessive speed in the fog, this faulty navigation is deemed negligence on the part of the Pilot.

15. That the GULFOIL's speed of approximately 5 knots was sufficient to carry her beyond the location of the collision and cause her to be firmly beached at Fort Adams.

16. That the source of ignition which started the fire in the spilled gasoline of the S. E. GRAHAM came from friction of steel striking steel as the vessels came together and could possibly have been contributed to by the rupturing of live power lines on the port side of the vessel in the collision.

17. That inflammable gases and fire entered the after crew quarters of the GULFOIL through the open starboard door on the forward end of such quarters. As a result of the Board's visit to the GULFOIL after the collision, the Board is of the opinion that the cause of the loss of 7 lives in the after compartments was a searing heat wave resulting from the collision and reaching the after compartment through the open door mentioned.

18. That although the S. E. GRAHAM was not under control of a licensed pilot and did not have a lookout, these deficiencies did not contribute to the collision.

19. That Edmund Tyrrell, who was reported as missing, was on board the GULFOIL on leaving East Providence and may be presumed to be dead as a result of the casualty.

The Board made the following RECOMMENDATIONS:

1. That consideration be given to establishing procedures for tank vessels to restrict live power lines for remote sections of such vessels to "in use" periods only.

2. That consideration be given to having a study made concerning the forward opening to the after crew's quarters on tank vessels in order to control or eliminate the danger of heat waves or blast effects killing crew members as occurred on the GULFOIL.

3. That consideration be given by the Coast Guard to an informal attempt to educate the industry that on vessels the size of the GULFOIL, not primarily engaged in inland and/or coastwise operation, that the most proper and safe operation is to have an officer junior to the Master man the radar, leaving the Master to devote all his attention to the overall supervision of the operations of his vessel when navigating in restricted waters in a fog.

4. That action be taken against the license of Karl Anderson, Master of the S. E. GRAHAM, under R.S. 4450 for misconduct in that he navigated the vessel without a licensed pilot in violation of 46 USC 364 and failed to provide a proper lookout as required by Article 29 of the Pilot Rules for Inland Waters.

5. That action be taken against the license of Borden A. Tuell, Pilot of the GULFOIL, for negligence in that he permitted the GULFOIL to get 200 yards to the eastward of the usual outbound track and in that he permitted the GULFOIL to go at an excessive speed in a thick fog; that action be taken against the license of aforesaid Pilot for failure to properly perform his duty in that he failed to further advise the Master under circumstances that are considered to be within the meaning of the precautions required by Article 29 for Pilot Rules for Inland Waters and for failure to live up to the normal obligations of the relationship to the Master as Pilot in that he did not persist in advising the Master that unless a course change to the right was initiated that the vessel might go aground. (The recorder for the Marine Board of Investigation has been instructed to take the action recommended by 4 and 5 above)

6. That the Commandant address a letter to Commander, U.S. Naval Base, Newport, Rhode Island, Rear Admiral Henry Crommelin, thanking him and through him the various naval units which participated in the rescue and fire fighting efforts which played a large part in limiting the loss of life and property damage.

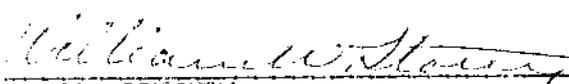
7. That the Commandant address a letter of commendation to Commanding Officer, USCGC LAUREL for assistance rendered to the GULFOIL and the S. E. GRAHAM, and for his quick recognition of the necessity of shifting the flaming S. E. GRAHAM from a spot rampant with dangerous potentialities to shore installations to a spot free of such potentialities and for his successful conclusion of such maneuver.

8. That the Commandant address a letter of commendation to the Group Commander, Newport, Rhode Island, for assistance rendered to the GULFOIL and the S. E. GRAHAM.

9. That the Commandant address a letter of appreciation to Captain William J. P. Northrop, Captain of the pilot boat Rhode Island for his assistance to the personnel of the S. E. GRAHAM and the GULFOIL.

The Board then adjourned to await the action of the  
Commandant.

  
E. J. ROLAND  
Rear Admiral, U.S. Coast Guard

  
W. W. STOREY  
Captain, U.S. Coast Guard

  
J. L. THOMPSON  
Commander, U.S. Coast Guard