

UNITED STATES COAST GUARD

For reply to:
 Commandant
 U. S. Coast Guard
 Washington 25, D. C.

MVI
 18 August, 1950
 (BRANT COUNTY (Norw.)
 SOUTHERN SUN Cas Bd)

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

Subj: Marine Board of Investigation; collision MV SOUTHERN SUN - SS BRANT COUNTY (Norw.) Delaware Bay, 28 March, 1950.

1. Pursuant to the provisions of Title 46 C.F.R. Part 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. The American Motor Tank Vessel SOUTHERN SUN of 8952 gross tons was southbound in Delaware Bay during foggy weather and using her radar for navigational purposes. The SS BRANT COUNTY (Norw.) of 7176 gross tons was proceeding northward in Delaware Bay during foggy weather and also using her radar for navigational purposes. Both vessels were proceeding at normal full speed. At approximately 1100 28 March, 1950, the MV SOUTHERN SUN and the SS BRANT COUNTY collided approximately one mile above the intersection of Brandywine Range. As a result of this casualty no lives were lost nor were any injuries sustained by any person or persons. The total damage to both vessels as a result of this collision was estimated at \$85,000.

3. The Board made the following Findings of Fact:

"VESSEL DATA

Name:	M/V SOUTHERN SUN	SS BRANT COUNTY
Nationality:	U. S.	Norway
Type:	Tanker	Dry Cargo (liberty)
Official No.:	230606	--
Home Port:	Phila., Pa.	Bergen, Norway
Built:	1931	1945
Length:	480.5'	422'
Beam:	66.0'	57'
Cargo Abcard:	In Ballast	8106 Tons
Drafts at time:	12' Fwd - 22' Aft	26'1" Fwd, 26'10" Aft
Gross Tonnage:	8952	7176
Net Tonnage:	5396	4580
Engines:	Sun-Doxford Diesel	Triple Expansion
H.P.:	2800	2500
Owners Address:	Sun Oil Co., 1608 Walnut St. Phila., Pa.	Bergenske S.S. Line, Bergen, Norway
Master:	Lorentz Fossedahl, 3539 Shel- mire Ave., Phila., Pa.	Harry Evensen, Bergen, Norway
Pilot:	Lorentz Fossedahl	William Williams Lewes, Delaware.
Location of: Damage	Starboard side (#7 Tank)	Bow

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(1) At approximately 1100 EST 28 March, 1950, while both vessels were navigating by radar during low visibility in Delaware Bay, the out-bound MV SOUTHERN SUN was struck on her starboard side by the inbound SS BRANT COUNTY. The collision occurred outside, to the eastward, of the main ship channel, Miah Maul Range approximately one mile above the intersection of Brandywine Range. There were no personnel injuries; total damage is estimated at \$65,000.

(2) The weather at the time was: Wind, south to southeast, force 2; smooth sea; fog; visibility less than one-half mile; ebb tide.

SOUTHERN SUN:

(3) On 27 March, while in port at Marcus Hook the Rathcon Radar was inspected by R. D. Ely of the Sun Oil Company.

(4) At 0601 28 March the vessel left Sun Oil Dock, Marcus Hook, Pa., anchoring in the river from 0620 to 0630 then departed with engines half ahead. At 0631 engines ordered full ahead. The weather then was over-cast, southerly wind 6 miles per hour.

(5) The gyro course recorder was in constant operation. There is testimony to the effect that "when heading is changed to a different quadrant, it is liable to jump one or two degrees**** and has to be checked on every change of course." The quadrant indicator was functioning properly. The degree indicator had a maximum error of three degrees.

(6) All clocks were checked prior to departure. The entries in the deck bell book are admittedly more reliable than the recollection of the third mate who made them.

(7) The steering gear had been checked prior to departure. The helmsman states the vessel steered normally at all times.

(8) At 0715 the radar was turned on with good reception using four mile scale; ship's voltage 225. This equipment remained in constant operation on the four mile scale until after the collision. Its antenna is located above the pilothouse, at a height exceeding that of the fore-mast. The PPI scope is located in the wheelhouse about 10 to 12 feet from the front windows. The windows in the pilothouse were closed; the starboard door remained open but there is conflicting testimony regarding the door to the port wing being open.

(9) Water ballast was taken aboard while downbound and this operation completed prior to collision. Drafts at collision are estimated at 12' forward, 22' aft.

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(10) About 0800, the master returned to the bridge from breakfast and assumed the con. The third mate (Follansbee), the helmsman (Milotich) and the third assistant engineer (Taylor) relieved the watch. The weather at this time is logged as overcast, with rain squalls, wind west, force 4, thermometer 62, ebb tide.

(11) Entries in the deck bell book reflect the progress of the vessel: 0809 Pea Patch; 0818 C. and D. Entrance; 0822 Buoy 7N abeam; 0835 Reedy Island abeam; 0848 Buoy 4B abeam; 0850 engines stopped; 0852 engines ahead full; 0853 buoy 2B abeam; 0849 Ship John L.H. abeam. All these points and those subsequently entered were taken by the third mate when the object was, by eye, abeam of the bridge and entered to the nearest half-minute.

(12) Fog patches were met from Pea Patch on, (0809). When off Reedy Island (0835) the sun came out briefly and the third mate obtained an azimuth determining a gyro error of 3.6 degrees east.

(13) At 1000 the helmsman was relieved for one-half hour. The vessel was then proceeding down Liston Range at full speed passing Ben Davis Buoy No. 32 at 1013 and entering upon Cross Ledge Range. At 1015, the lookout (Nichols) returned to the bow after 15 minutes relief for coffee time. At 1019 Buoy 31 was abeam. The fog was getting thicker and fog signals were commenced, blown by the third mate, and the master took station at the radar scope.

(14) At 1029 Elbow of Cross Ledge L.H. was abeam, and although passed about one ship-length off, the lookout and third mate could only see the top of the Lighthouse due to low-lying fog. Buoy No. 23 on the starboard hand was not seen by anyone on watch. At 1030 the helmsman returned to the wheel on course 145.

(15) At 1031 engines were ordered on standby. At 1043 Buoy No. 25 was abeam to starboard, fog now "very thick" visibility about 40 feet; Miah Maul L.H. could not be seen ahead. At 1050 Miah Maul L.H. was abeam 0.6 miles to port by radar. Only the top of the L.H. was briefly seen. A target was beginning to appear on the radar.

(16) At 1053 with turn buoy No. 19 on radar about $\frac{1}{2}$ point on the port bow a target was seen by the master about $\frac{1}{2}$ point on starboard bow, which he interpreted as an upbound vessel attempting to cut the corner from Brandywine to Miah Maul Ranges by going to westward of this buoy. "Left rudder" was ordered and the helmsman, using 15 degrees rudder from a heading of 148, steadied briefly, on master's orders, on 135 and 125. The fog whistle of the approaching BRANT COUNTY was heard ahead and to starboard. The master ordered speed reduced to slow (logged in the engine room at 1054). The SOUTHERN SUN was then $1\frac{1}{2}$ to 2 miles above

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buoy 19. The master at the radar, concluding that the situation was critical, rang the general alarm and ordered hard left rudder. (The ringing of the general alarm was logged in the engine room at 1057). In the engine room, the third assistant left the throttle to start the fire pump located about 50 feet distant, but had not reached it when he felt the collision. Meanwhile the chief engineer, who was in his cabin, located on the starboard side in the forward part of the after house, hearing whistles and general alarm, glanced through his forward port hole and saw the approaching vessel about one ship's length off. He ran to the engine room but only reached the second grating when the collision was felt.

(17) On the bridge, immediately after the general alarm was sounded, the master heard the danger signal and one blast from the BRANT COUNTY and simultaneously the masts on the BRANT COUNTY were sighted by the third mate and lookout emerging through fog at an estimated distance of 600 to 800 feet about two points on starboard bow and appearing to be heading across their bow. The lookout reported by one bell. The speed of each vessel at this time is estimated at two to three knots; the stern of the SOUTHERN SUN was swinging fast. The anchor of the BRANT COUNTY was seen to drop when she was off a distance, variously estimated from 10 ft. to 100 ft.

(18) The course recorder indicates that at 1053 the ship's head started to come left from 148, steadied at 139 for about one minute then paused again at 128, after which the vessel was swinging left at a rate approximating 32 degrees per minute when, at 1058½, at heading 064, she started a right swing to 126. The helmsman states the SOUTHERN SUN was heading 090 on impact, had been swinging to the left, but collision caused it to swing to the right. The master testified that the bow seemed to have ceased swinging immediately prior to impact as though the vessel had grounded. This is denied by the helmsman. The engine room officers calculated the time of collision at 1058. The bridge books show 1102.

(19) About two minutes after collision the engines were ordered stopped. Meanwhile the friction of impact had caused a slight fire on both vessels. The vessels separated, the BRANT COUNTY remaining anchored. The SOUTHERN SUN cleared her and drifted down stream, maneuvered, and at 1145 anchored.

(20) No accurate bearings were taken by the SOUTHERN SUN; the master estimates the position on collision at 5200 yards from Miah Mauli L.H. on bearing 146° (T). There was no explosion. The fire was confined to the oil adhering to the inside of the tank which, although empty and not ballasted, had been filled with inert gas on discharge at Marcus Hook. The fire was extinguished within 20 minutes using steam smothering, one foamite hose and two water hoses with 100 lbs pressure. There was no confusion, the fire being fought under direction of the chief mate. All equipment functioned properly. At 1304 she proceeded,

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returning to Philadelphia unassisted.

(21) Calculations as to the full speed of the SOUTHERN SUN over the ground are: Ship John abeam -- 0949; Miah Maull abeam -- 1050. Time interval: 61 minutes. Distance: 13.3 miles, result 13.08 knots.

BRANT COUNTY

(22) At 0800 EST the BRANT COUNTY was approaching Overfalls. The third mate (Klausen) and the unlicensed assistant engineer (Lindell) took over the watches. The engine room clock was about two minutes ahead of the bridge clock. (This error is applied in times hereinafter stated). There was no gyro error. The steering gear was functioning properly.

(23) About 0900 State Pilot Evans boarded the vessel about two miles inside Overfalls L.V. The weather was then overcast, light south winds, smooth to slight rolling sea, tide ebbing, estimated 1 k., visibility variously estimated at 3 to 8 miles. The Radar (R.C.A.) was operating on eight mile scale, no apparent defects.

(24) At 0900 engines ahead full. At 0916, due to rain squall and low visibility, engines ahead slow. 0919 engines ahead full. About this time the master went below for breakfast, pilot conning.

(25) At 1000 the helmsman was relieved (by Klavnes) on course 338 (PGC), no fog signals being blown. About 1012 Brandywine L.H. was passed, visibility 2 to 3 miles. Between then, and 1030 Buoy 12 was passed about 200 ft. off on starboard hand, Buoy #14 was passed close. Buoy #16 was passed, estimated from "close" to 250-300 feet off. Visibility was then reducing. The pilot began blowing fog signals. A target was reported on radar, port bow, distance 7 miles. The Master was sent for, and appeared on the bridge. Visibility then was estimated at one mile. A lookout (Fonnes) was posted at the bow. Both doors and three forward windows in pilot house were open.

(26) At approximately 1030 the vessel was approaching Fourteen Foot Bank L.H. The master and third mate saw the target on the radar. The master and pilot testified it was 5 - 6 miles ahead. Third mate states it was seven miles ahead bearing 1 to 1½ points on port bow, with Miah Maull L.H. ahead and between BRANT COUNTY and target. Only the top of Fourteen Foot Bank L.H. when abeam could be seen from the bridge due to low-lying fog. It was not seen by the lookout. It was passed ¾ to 1 mile off on course 338. The target on the radar was then six miles off. Weather then light southerly wind, smooth sea, visibility 1 to 1½ miles. Several men were working on foredeck releasing the hatch wedges, No. 2 hatch; the carpenter was turning over the winches until ordered to stop by master as noise might interfere with hearing sounds ahead or orders passed. (Steam on deck was given by Asst. Engr. at 1045). Speed reduced to half ahead at 1054.

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- (27) Pilot Evans states Buoy #19 was passed about 1000 feet off on port hand about 5 minutes before collision. This buoy was not seen by 3rd mate. The lookout remembers passing a bell buoy on port hand but is doubtful as to time and color. The radar target was now about one mile away, 45 degrees on port bow. Fog signals of an outbound vessel were heard by the master. The pilot ordered wheel right easy, steady on 345. The helmsman used two turns of wheel in executing order (hard over is seven turns). The helmsman reported steady on 345. Masts and radar antenna of SOUTHERN SUN sighted on port bow, the masts appearing "in line". The master and pilot estimate one mile off, three points on port bow; engines ordered "dead slow"; 1 short blast was blown. The SOUTHERN SUN appeared to be turning on left rudder. The danger signal and one blast were blown, and engines ordered half ahead, and hard right rudder. (Engine Room Log shows "1056 dead slow; 1056 half ahead"). The Chief Engineer, hearing the whistle signals, ran to the engine room and was descending the ladder when the "half ahead" was ordered.
- (28) At about 1057 the pilot ordered emergency full astern and drop port anchor. Gave three blast whistle signal. Engines responded promptly. Although anchor had been made ready previously, there was a delay in releasing the "scissors", (a special device similar to a pipe vise by which the chain is secured, and riding pawl eliminated), and releasing the brake. The delay is estimated at $\frac{1}{2}$ minute. Actual dropping of anchor is estimated by witnesses at 1 to 2 minutes prior to impact. Three shackles ran out before lookout was ordered to "check it". The chain stopped with four shackles in the water. According to the lookout, the chain tightened up prior to impact.
- (29) Collision is recorded at 1059 (deck log) and according to engine room log, an estimated one minute after the full astern bell (1057). Her rudder was hard right; the pilot, third mate and helmsman stated the heading was 080 (FGC) and the angle of collision approximated 90 degrees.
- (30) At the moment of impact, the master, third mate and helmsman were in the wheelhouse, the pilot was on the port wing, and the lookout had run to abaft of No. 1 hatch. The BRANT COUNTY had but little headway; she was not aground. A slight fire broke out in stern oil stowed in the forepeak but was quickly extinguished by water. An SOS was sent by radio operator, also radio communication established between the two involved ships. Neither required assistance.
- (31) The bow of the BRANT COUNTY had struck the starboard side of the SOUTHERN SUN resulting in the bow being damaged to an estimated \$38,000.
- (32) The headway of the SOUTHERN SUN appears to have broken the vessels apart, the BRANT COUNTY remaining at anchor. The following bearings were

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taken: Miah Maul L.H. 335, Fourteen Foot Bank L.H. 175, Brandywine L.H. 152, Buoy #19, 197. At 1136 she weighed anchor and proceeded to Philadelphia unassisted.

(33) The average speed of the BRANT COUNTY, from the time Pilot Evans came aboard (0902) 2 miles inside of OVERFALLS L.V. until collision (1059) is -- time 117 minutes, distance 17.2 miles, result 8.81 K over the ground.

COMMUNICATIONS AND COAST GUARD OPERATIONS

The "SOS" of the BRANT COUNTY on 468 K.C. was intercepted at 1102 EST by Tuckerton N. J. radio station WSC. At 1111 the Commander Eastern Area was advised by Coast Guard Radio Station, Washington, that Ocean Station Vessel "HOW" had intercepted "SOS -- on fire". At 1112 the Coast Guard Radio Station, East Moriches, L. I., N.Y. reported fragmentary message intercepted indicating position Buoy 19 Delaware Bay. At 1124 the Commander, SCGD ordered various units and a plane to proceed to scene.

At 1135 Coast Guard plane #229 departed Brooklyn Air Station. At 1136 the CG 83468 departed Lewes, Delaware. At 1147 the CGC SASSAPRASS departed Cape May. The CGC LILAC, operating in vicinity of Pea Patch, Delaware River also proceeded toward scene.

At 1149 information was received from Fourteen Foot Bank L.H. that vessel with damaged bow was sighted proceeding up river, and another vessel at anchor off Buoy 19.

At 1231 CG plane #299 arrived at scene, and reported SOUTHERN SUN at anchor with port list. At 1309 the SOUTHERN SUN was reported underway, proceeding up river.

At 1319 the Commander SCGD recalled all units."

4. The Board expressed the following Opinions:

"(1) The SOUTHERN SUN was proceeding at excessive speed, averaging over 13 knots, when visibility was reduced at one time to as low as forty (40) feet, and in violation of 33 C.F.R. 80.13.

(2) The Master of the SOUTHERN SUN misinterpreted the situation, (as indicated in paragraph 16), and his assumption that the SS BRANT COUNTY was proceeding to the westward of Buoy 19 was in error.

(15) The Master of the SOUTHERN SUN assumed that the approaching BRANT COUNTY was not equipped with radar and that he alone was aware of the situation.

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- (4) The collision would probably not have occurred if the Master of the SOUTHERN SUN had not adopted a course to his port intending a starboard to starboard passing.
- (5) The Master of the SOUTHERN SUN violated 33-CFR-80.13 by not stopping his engines when the whistle of the BRANT COUNTY was heard forward of his beam, and not within visual range.
- (6) The action of the Master of the SOUTHERN SUN by using hard left rudder made it impossible for the BRANT COUNTY to avoid the collision within the time and distance between sighting and collision.
- (7) The SS BRANT COUNTY, in going hard right, reversing her engines and dropping her anchor was the most appropriate action then to be taken.
- (8) The BRANT COUNTY, similar to the SOUTHERN SUN, relied upon the radar to indicate the position of the approaching vessel and failed to comply with 33-CFR-80.13 by not stopping her engines when the whistle of the SOUTHERN SUN was heard ahead. She did however, navigate with caution on dead slow ahead, until it appeared advisable to increase speed and attain greater rudder effect.
- (9) The pilot of the BRANT COUNTY, except for the technical violation indicated in the preceding paragraph, is without fault, his actions in extremis did most to minimize the damage resulting from this casualty.
- (10) There was no failure of equipment on either vessel.
- (11) The subsequent fires were efficiently fought and promptly extinguished.
- (12) Except for the Master of the SOUTHERN SUN, there was no negligence, incompetence or misconduct on the part of anyone preceding or during the collision and fire.
- (13) The Master of the SOUTHERN SUN was negligent, in using excessive speed, in adopting a course to the left side of the channel, and in failing to stop his engines. There is no misconduct indicated; it is his neglect in failing to follow the established rules and prudent practices of safe navigation, thereby unnecessarily hazarding his vessel and contributing to the cause of this collision.
- (14) The collision occurred within the scope of Coast Guard rescue operations, and although no assistance or rescue became necessary, prompt and appropriate action was taken."

5. The Board made the following Recommendations:

- "(1) That proceedings under R.S. 4450 against Lorents Fossedahl, Master

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of the SOUTHERN SUN be instituted on a charge of Negligence, the specifications setting forth his neglect as indicated in Opinion #13.

(2) That no further action be taken and the case closed."

REMARKS

6. Opinion 9 of the Board in effect states that the pilot of the BRANT COUNTY is without fault in the subject collision. The pilots of both vessels, the BRANT COUNTY as well as the SOUTHERN SUN, were navigating their vessels in foggy weather and under conditions of greatly reduced visibility in disregard of the requirements of 33 U.S.C. 192 and 33 CFR 80.13 which provide that every vessel in fog shall go at a moderate speed having careful regard to existing circumstances and conditions and that when a fog signal of a vessel is heard, apparently forward of the beam, the position of which is not ascertained, every vessel shall, so far as the circumstances of the case admit, stop her engines and navigate with caution until danger of collision is over. Although radar had indicated to each vessel the presence of the other long before the fog signals were heard, such fact did not relieve either vessel from compliance with the requirements of the above cited statute and regulation, particularly when navigating in the vicinity of a buoy marking a turn in the channel and it was the duty of both the SOUTHERN SUN and the BRANT COUNTY to stop their engines and then navigate with caution until danger of collision had passed.

7. A copy of this report will be furnished to the American Pilots' Association for such action as may be deemed appropriate against William W. Evans in charge of the navigation of the SS BRANT COUNTY and acting under the authority of his State Pilots license at the time the subject casualty occurred.

8. 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

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

Forwarded, recommending approval.

/s/ H. C. SHEPHEARD
H. C. SHEPHEARD

APPROVED 29 August, 1950

/s/ A. C. RICHMOND
A. C. RICHMOND

Rear Admiral, U.S. Coast Guard
Acting Commandant