

UNITED STATES COAST GUARD

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



MVI
(CONSTITUTION -
JALANTA C-3 Bd)
17 AUG 1959

Commandant's Action

on

Marine Board of Investigation; collision between the SS CONSTITUTION and Tank Vessel JALANTA (Norwegian), vicinity of Ambrose Light Vessel, 1 March 1959

1. 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.
2. At 1040, EST, 1 March 1959, the United States passenger vessel SS CONSTITUTION collided in dense fog with the Norwegian motor tanker JALANTA approximately five miles southeast of Ambrose Light Vessel.
3. The CONSTITUTION was approaching Ambrose Light Vessel on a northerly course en route from Newport News, Virginia, to New York with 116 crew members and 33 additional persons.
4. At approximately 0955 fog was encountered. The Master began conning the vessel by radar and fog signals were commenced. The vessel was making slightly more than 18 knots and this speed was maintained. The radar target later identified to be the JALANTA was first sighted 5° on the port bow $7\frac{1}{2}$ miles distant. Based on continued observations the Master concluded that the target was on an opposite parallel course but no plot was maintained. According to the course recorder the CONSTITUTION began coming right easily 8 minutes before the collision from a heading of 000° T and was steadied briefly on about 035° T. When the target was 2 miles away on the port bow it was lost in the sea return on the radar scope. At about 1037 the fog signal of another vessel was heard on the port bow. Two minutes later the signal was again heard on the port bow at which time speed was reduced to 11.1 knots. Almost immediately the bow of the JALANTA appeared out of the fog $\frac{1}{4}$ mile off line on the port bow on a course at right angles to that of the CONSTITUTION. Full astern and hard right rudder were immediately ordered on the CONSTITUTION but were not sufficient to prevent the collision.
5. The JALANTA, in ballast but not gas free, had taken departure at about 1000 approximately two miles off Ambrose en route to Aruba, DWI and was headed southeasterly. At 1005 visibility began to decrease. Fog signals were commenced, speed was reduced to half ahead and a course of 144° T was set and maintained up to the time of collision. According to the Master two radar targets were observed; one at about $4\frac{1}{2}$ miles and the other about $2\frac{1}{4}$ miles, both to starboard. The record contains no further mention of the target at $4\frac{1}{2}$ miles; however, the target at $2\frac{1}{4}$ miles appeared to be on an opposite parallel course. Its fog signal was heard and it subsequently passed an estimated $\frac{1}{2}$ to $\frac{3}{4}$ of a mile off the starboard side.

Shortly thereafter a third radar target appeared $2\frac{1}{4}$ miles on the port side. The bearing of this target opened to the left and soon disappeared in the sea return when about two miles away. No fog signals were heard from this vessel but it was estimated to have subsequently passed about $1\frac{1}{2}$ miles off. From that time forward sea return obscured all radar targets. A few minutes before the collision, while proceeding slow ahead at about 5 knots, the Mate on watch on the starboard wing of the bridge reported hearing a fog signal abeam to starboard. Speed was reduced to dead slow ahead and the Master went out on the wing. Shortly thereafter another whistle signal was heard apparently forward of the starboard beam and the engines were stopped. Within moments the bow of the CONSTITUTION appeared out of the fog about $1/4$ of a mile away forward of the beam heading approximately right angles to the JALANTA's course. The engine was ordered full astern and the vessel was estimated to be about dead in the water at the time of impact.

6. The bow of the CONSTITUTION almost completely severed the bow of the JALANTA forward of her pilot house and approximately 25 minutes later the bow finally broke off. Considerable hull damage was sustained by the bow of the CONSTITUTION; however, there were no lives lost and no injuries to any persons. Both vessels proceeded to New York under their own power and the bow of the JALANTA was later towed in.

REMARKS

1. Concurring with the Board it is considered that the primary cause of this casualty was the failure of the SS CONSTITUTION to go at a moderate speed in a fog and failure to stop her engines and navigate with caution upon hearing forward of her beam the fog signal of a vessel, the position of which was not ascertained. These failures were aggravated by the fact that the radar provided timely notice of the proximity of the other vessel. Improper interpretation of the radar aboard the CONSTITUTION was also a factor and one which could have been avoided by the simple expedient of plotting ranges and bearings.

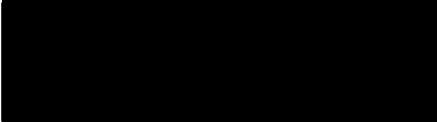
2. The failure of the JALANTA to fix the position from which she took departure and to accurately maintain deck and engine room bell books reflects unfavorably on her watchkeeping and precludes a more accurate and detailed reconstruction of her navigation. In addition, the testimony of the Master concerning the target observed on the radar at $4\frac{1}{2}$ miles on the starboard side raises obvious unanswered questions as to whether or not that target was in fact the CONSTITUTION. Despite these doubts it is considered that the record amply supports the conclusion that the JALANTA's speed in the fog was moderate and that she otherwise met her duty by stopping upon hearing the fog signal forward of the beam.

3. The fact that on both vessels sea return adversely affected radar operations re-emphasizes that radar can be relied on only as an aid to navigation and its presence on board does not relieve the mariner of his statutory responsibilities under the rules to prevent collisions.

4. The question of sea lanes, of which local approach procedures would necessarily be a part, has been under review in the form of preparations for the forthcoming International Safety of Life at Sea Convention. Accordingly, the Board's suggestion for a system of vessel guidance and control at harbor approaches has been referred to the appropriate sub-committee for its information.

5. With respect to the Board's recommendation that a waterproof life preserver storage box be required in the vicinity of the bow on all vessels, desirable as it may have been from the JALANTA's standpoint, experience in collision cases has shown that such an installation would be of limited value to the lookout on the colliding vessel. In any case, where hazards are present, whether they be natural or operational, it is the responsibility of the Master or officer of the watch to consider the advisability of requiring the lookout to don a life preserver before going on watch.

6. Subject to the foregoing remarks, the record of the Marine Board of Investigation is approved.



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

UNITED STATES COAST GUARD

ADDRESS REPLY TO

Officer in Charge
Marine Inspection
U.S. Custom House
New York 4, N. Y.



16 April 1959
A25(MMIS-016383)

From: Captain Marius DeMartino (1246), USCG
Chairman, Marine Board of Investigation
To: Commandant
Via: Commander, Third Coast Guard District (d)
Subj: Marine Board of Investigation; collision in fog between
SS CONSTITUTION and Motor Tank Vessel JALANTA (Norwegian),
vicinity of Ambrose Light Vessel, 1 March 1959.

- FINDINGS OF FACT -

1. The SS CONSTITUTION and the Norwegian Motor Tanker JALANTA collided in dense fog at 1040 EST, 1 March 1959, approximately 5 miles southeast of Ambrose Light Vessel, with damage to the CONSTITUTION in amount of \$380,000., and to the JALANTA in amount of \$900,000.

There were no personnel injuries and no fires as a result of this casualty.

2. Specific information on the two vessels involved in the collision is as follows:

a. SS CONSTITUTION

(1)	Nationality	U.S.A.
(2)	Type	Passenger-twin screw
(3)	Official No.	262027
(4)	Home Port	New York, N. Y.
(5)	Type propulsion	Steam; 37,000 H. P.
(6)	Built	1951; Quincy, Mass.
(7)	Tonnage	23,754 gross; 11,166 net
(8)	Length-Breadth-Depth	637.'8; 89.'2; 38.'0
(9)	Place & date last inspected	New York, N.Y.; 17 Nov. 1958
(10)	Draft	Fwd. 25'04"; Aft. 27'-02"
(11)	Deadweight	11,999 tons
(12)	Gyro compass	Yes
(13)	Course recorder	Yes
(14)	Radio Direction Finder	Yes
(15)	Fathometer	Yes
(16)	Radar	RCA CR101A; RCA CR104A
(17)	Owner & Operator	American Export Lines, Inc. 39 Broadway, New York, N.Y.

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(18) Master _____ James W. LaBelle
Lic. _____, issue 5-8

b. M/T JALANTA

(1) Nationality _____ Norwegian
(2) Type _____ Motor Tanker-single screw
(3) Home Port _____ Sandefjord, Norway
(4) Type Propulsion _____ Motor; 7200 H. P.
(5) Built _____ 1952; Kiel, Germany
(6) Tonnage _____ 12,228 gross; 6,938 net
(7) Length-Breadth-Depth _____ 569.'2; 71.'7; 39.'3
(8) Place & date last inspected _____ Norwegian Veritas; 1956
(9) Draft _____ Fwd. 12'-10"; Aft. 21'-00"
(10) Deadweight _____ 18,435 tons
(11) Cargo capacity _____ 18,434 long tons
(12) Cargo type _____ On departure, none (in water ballast) arrived New York with heavy crude oil

(13) Gyro compass _____ Not in operation
(14) Course recorder _____ None
(15) Radio Direction Finder _____ Yes
(16) Fathometer _____ Yes
(17) Radar _____ RCA 103
(18) Owner _____ Anders Johre Rederic IV, A/S Sandefjord, Norway
(19) Time Charterer _____ Esso Tankers, Inc. 60 W. 49th St., New York, NY
(20) Master _____

3. The speed data of both vessels is as follows:

a. SS CONSTITUTION

<u>MANEUVERING SPEED</u>			<u>SEA SPEED (650 lbs.)</u>		
RPM	Speed-3%	Slip	Nozzles	RPM	Speed
10	1.9	.	11	117	21.6
20	3.7		15	127	23.4
40	7.4		19	132	24.3
60	11.1				
100	18.4				

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b. M/T JALANTA

<u>NORMAL SPEED</u>	<u>R P M</u>	<u>SPEED</u>
Dead Slow ahead	40-45	3.5
Slow ahead	60-65	5.5
Half ahead	80-85	7 to 8
Full ahead	100	12.5 to 13

4. a. The SS CONSTITUTION departed Newport News, Va. at 1334 EST, 28 February 1959 on a coastwise voyage to New York with a crew of 116 and 33 observers. The draft on departure was 25'-04" fwd. and 27'-02" aft.

b. Captain LaBelle was on the Bridge more or less continuously from about 1330, 28 February to collision except for answering calls of nature and for a period about 1½ hours during the early morning of March 1st.

5. At approximately 0955 EST, 1 March 1959, about 25 miles north of Barnegat L/V, fog shut in. The engine order telegraph was placed on STANDEY and operation of the fog whistle commenced with automatic control, sounding a prolonged blast at intervals of not more than 2 minutes. On course 004°T and making a speed of 18.6 knots, the Master, Capt. LaBelle, took the Conn and placed himself at the radar located on the stbd. side of the Bridge. The Second Officer, [REDACTED] with a messenger, [REDACTED] took stations on the port wing and the Third Officer, [REDACTED] took station on the stbd. wing. Helmsman, [REDACTED] was at the wheel. The Staff Captain, [REDACTED] was about the Bridge. AB [REDACTED] was standing Lookout watch on the forecastlehead prior to and during the collision.

6. The Captain indicated he observed a target on radar, on the 8 mile scale, about 3 points forward of his stbd. beam, 3 miles distant, moving in the same direction about 2 miles per/hour less than the CONSTITUTION. Off to port, towards shore about 2½ miles, the radar indicated a cluster of targets, assumed by the Captain to be fishing vessels. At 1000, course was changed to 020°T to avoid a south bound target, which passed 2 miles off the port beam at approximately 1010; at this time, the CONSTITUTION was swung left and steadied on course 000°T at 1020.

7. A short time later another target, bearing 5° on the port bow, 7½ miles distant, appeared on the radar (still on 8 mile scale). This target was observed, using the cursor bearings and ranges, but not plotted. When about 4 miles away, the range scale of the radar was changed to the 4 mile scale. At 1032, when 2 miles away on the port bow, the target disappeared in the sea-return. The visibility was now ¼ mile. There was a slight NE sea with a short easterly swell and the wind was NE, force 3. The stbd. engine was turning 100 RPM and the port engine at 1032, had been reduced from 112 to 100 RPM (18.4 knots). At about 1037, a one blast whistle signal was heard on the port bow. The CONSTITUTION was swung right to 035°T, the course recorder (Exhibit 2) indicates that this turn had started at approximately 1032 from a heading of 000°T. At 1039, another whistle signal was heard on the port bow; both engines were reduced to 60 RPM (11.1 knots). At this time, the bow of a vessel appeared out of the

fog, about $\frac{1}{4}$ mile just off the port bow and on a course crossing at right angles to the CONSTITUTION's. At 1039 $\frac{1}{2}$, being then in an extremis situation, hard right rudder was ordered and the engine order telegraph was placed on full astern. At 1040, the bow of the CONSTITUTION, going forward and swinging to the right, struck the JALANTA on her stbd. side, forward of the pilot house, approximately 125 feet from the bow and at about right angles to her fore and aft line.

8. At 0800 EST, 1 March 1959, the Motor Tanker JALANTA departed Brooklyn, New York bound for Aruba, Dutch West Indies. The vessel was in ballast; her tanks had not been gas freed. The draft on departure was 12'-10" fwd. and 21'-00" aft.

9. The tanker had proceeded out of New York and at 0955, in the vicinity of Ambrose L/V, dropped off the pilot. The Light Vessel was in sight at an estimated distance of 2 miles. The sky was overcast, with visibility about 2 miles; the wind was NE force 3 and there was a slight NE sea. Capt. [REDACTED] took the Conn. The Third Officer, [REDACTED] was on watch on the stbd. wing. [REDACTED] was at the wheel and on the fore-castlehead [REDACTED] was standing lookout.

10. At about 1000, departure was taken from Ambrose L/V bearing 033 $^{\circ}$ T, distance estimated at 1 $\frac{1}{2}$ miles; course was set at 135 $^{\circ}$ T, speed full ahead (12 $\frac{1}{2}$ to 13 knots). This course and speed was maintained for approximately 5 minutes, at which time the visibility commenced to decrease. The Third Officer started sounding the fog whistle by hand; STANDEY was rung up on the telegraph, followed a few minutes later with orders to reduce speed to half ahead; the course was changed to 144 $^{\circ}$ T (155 $^{\circ}$ magnetic compass), which was maintained up to the time of collision.

11. Capt. [REDACTED] stated, while on course 144 $^{\circ}$ T, two radar targets were observed on the 8 mile range scale; one at about 4 $\frac{1}{2}$ miles and the other about 2 $\frac{1}{4}$ miles; both to stbd. The target at 2 $\frac{1}{4}$ miles was moving in the opposite direction to the JALANTA; its fog signal was heard. The JALANTA's speed was reduced to dead slow ahead. The target was estimated to have passed about $\frac{1}{2}$ to $\frac{3}{4}$ of a mile off the stbd. side. The JALANTA increased speed to slow ahead; shortly thereafter, another radar target appeared about 2 $\frac{1}{4}$ miles on the port side; the bearing opening to the left. This target was lost in the sea-return around the two mile range, no fog signals were heard; it was estimated to have passed about 1 $\frac{1}{2}$ miles off. From this time, until the collision, no more targets were seen on the radar. Such radar targets as were observed were not plotted.

12. At about 1038, with visibility down to $\frac{1}{4}$ mile, a fog signal was heard on the stbd. beam. Maintaining course of 144 $^{\circ}$ T, speed was reduced to dead slow ahead. Shortly thereafter, another whistle signal was heard just forward of the stbd. beam; immediately all engines were stopped.

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About $\frac{1}{4}$ of a mile away, a vessel appeared out of the fog, on the stbd. beam, bearing down on the JALANTIA about right angles to the JALANTIA's course. The engine order telegraph was rung full astern, followed immediately by emergency full astern. The JALANTIA was about dead in the water at the time of impact.

13. The bow of the CONSTITUTION hit the JALANTIA forward of her pilot house, continued into the hull through the No. 2 stbd. wing tank, crossing the centerline and cutting the catwalk, leaving the bow hanging on to the rest of the ship with only about a foot wide strip. The steam line to the windlass was severed, filling the entire foredeck area with steam.

14. The CONSTITUTION was damaged at the bow, plating and frames were torn and pushed in on the port bow in way of the forward lounge and the forepeak, with a gash extending aft about 60 feet. Damage was also sustained to the chain pipes, port and stbd., the forepeak tank top and to the power cables leading to all the deck machinery forward.

15. The CONSTITUTION rendered all possible assistance. Captain LaBelle finding it impossible to keep his ship against the JALANTIA due to the CONSTITUTION taking a sheer to stbd., backed away and came alongside the JALANTIA at 1050. On ascertaining no immediate assistance was necessary, but standing by, he lowered the No. 3 motor lifeboat at 1105. The boat returned at 1130 with the report that no assistance was required and that there were no casualties; at which time, he continued to stand by the JALANTIA, proceeding with her toward Ambrose I/V.

16. At the time of the collision, sparks were seen but no fires were started. The JALANTIA's bow broke off at 1115 and was later towed into Bethlehem Shipyard, Hoboken, N.J., by the Moran Towing Co. The Masters of both vessels carried out emergency procedures. After ascertaining that no assistance was required, both vessels, escorted by tugs, proceeded into New York harbor under their own power. The CONSTITUTION at 1948 EST, 1 March 1959, and the JALANTIA at 2015 EST, 1 March 1959, docked at Bethlehem 56th Street Shipyard, Brooklyn, New York.

17. On the JALANTIA, all courses were steered by the standard (magnetic) compass. The Sperry gyro compass was not in operation, nor had it been in operation when the vessel arrived in New York. It was the understanding of the Captain that spare parts could not be obtained in New York; that they must be sent from London. In use was a radar that, on this date, had sea-return that was reported to have obliterated all targets at the 2 mile range and in certain sectors at 4 and 6 miles ranges. The Bridge clock was not synchronized with the Engine Room clock. Some of the times noted, were from the Captain's and the Third Officer's wrist watches, which were not synchronized with each other nor with the Bridge clock. Therefore, there are differences of from 1 to 12 minutes in the times logged between the Bridge Logs and the Engine Room Logs.

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18. A course of 168°T from a departure position 1 mile off Ambrose L/V was laid out on the JALANTA's chart. This course was not used. On taking departure off Ambrose L/V, the Captain did not get a fix, having obtained only a bearing off Ambrose L/V, and estimating his distance at about 1½ to 2 miles. Navigating from this position, the vessel proceeded and steadied on course 144°T, which was maintained up to the time of the collision. This course and the 11:00 radar fix were plotted on the ship's chart.

19. There is a variance in position of the collision point, as reported by both ships, of about 3 miles. The CONSTITUTION obtained a radar range and bearing fixing the place of collision at 5.2 miles and 162°T from Ambrose L/V. The JALANTA did not obtain a fix at the place of collision, but estimated that it occurred 2.4 miles bearing 148°T from Ambrose L/V. The Coast Guard PSU Radar, Sandy Hook, fixed the place of collision as bearing 115°T, 11.5 miles from Sandy Hook Radar (4 miles, bearing 152°T from Ambrose L/V); this position is approximately midway between the positions indicated by the CONSTITUTION and that indicated by the JALANTA.

20. When in sight of each other, neither the CONSTITUTION nor the JALANTA sounded the three blast whistle signal to indicate that the engines were going astern.

21. Capt. [REDACTED] the Staff Captain of the CONSTITUTION, shortly after the collision as the vessels separated, looked at the radar and testified that he saw the JALANTA on the scope at seven tenths of a mile without sea-return.

* * * * *

- CONCLUSIONS -

22. At 1040 EST, 1 March 1959, the SS CONSTITUTION and the M/T JALANTIA collided in dense fog in a position approximately 5 miles, bearing 162°T, from Ambrose Light Vessel.

23. Although the Master of the JALANTIA, Capt. [REDACTED] failed to accurately fix his point of departure and the position of his vessel up to the time of the collision, this did not contribute to the casualty. Shortly after taking departure from Ambrose L/V, he maintained a course of 144°T up to the time of the collision. He navigated his vessel with caution in fog, reducing his speed to slow or dead slow, whenever radar targets were close at hand. Speed was not increased until the targets had passed well clear. On hearing the fog whistle of a vessel forward of his beam, the position of which had not been ascertained, he stopped the JALANTIA's engines. On visually sighting the vessel, he ordered emergency full astern, bringing the JALANTIA to about dead in the water at the time of collision.

24. That the Master of the JALANTIA, Capt. [REDACTED] by his own testimony, did not plot radar target ranges and bearings and thus, was not availing himself of the maximum advantages for safe navigation through the use of the radar on his ship.

25. That the Master of the CONSTITUTION, Capt. James W. LaBelle, devoted his attention almost exclusively to the radar during periods of restricted visibility. Quote, "I have a fog detail which I set up on the ship, where I have the Second Mate on one wing, and the Third Mate on the other wing, and they are trained to work just as though there was no radar on the ship"---"I've trained the officers to be my eyes and ears, and I stay right over the radar all the time."

26. a. Capt. LaBelle's self-asserted expertness in the use of the Radar, quote, "I have made a study of the radar and I had been considered somewhat of a perfectionist on the operation of the radar"--"I can interpret a little better than others"--"I don't know about being an expert. I just have that reputation.", in the opinion of the Board was not borne out by the technique and procedures he used with the instrument from the time the target, later determined to be the JALANTIA, appeared on the radar scope to the instant of collision. This is based on the statements of the Captain that he did not plot any ranges and bearings and that he estimated the target would pass 3/4 of a mile to port, a procedure not consistent with reliable radar technique. The Captain is again quoted, "You can train yourself to know just what your targets are doing by

watching them closely all the time"--"I had tracked the target and thought I knew what he (the target) was doing, and had estimated he (the target) would pass 3/4 of a mile off. This is unquestionable."

b. Relative motion, direction and point of nearest approach of a target with own ship cannot be estimated to any reliable degree without properly plotting at least several periodic range and bearing positions of the target. In addition, it must also be assumed that the speed and course of the target are not altered after the last range and bearing point is plotted. In this case even if the visual method used by Capt. LaBelle were accepted as capable of producing accurate results, the loss of the target in the sea-return at a distance of 2 miles would have rendered the predicted results extremely doubtful and to be treated with utmost caution.

27. That the collision occurred primarily as a result of the Master of the SS CONSTITUTION, Capt. James W. LaBelle's failure to comply with the Rules of the Road and exercise prudence while navigating in dense fog. He proceeded at excessive speed in fog, and upon being informed of a fog signal forward of the beam of the CONSTITUTION, the position of which was not ascertained, failed to stop the engines and thereafter navigate with caution.

- RECOMMENDATIONS -

28. The Board recommends that action under R.S. 4450, as amended, be taken against License [REDACTED], issued to James W. LaBelle, for his negligence in operating the SS CONSTITUTION at an immoderate speed, under conditions of fog and restricted visibility and for neglecting to stop the engines of the SS CONSTITUTION and thereafter, navigate with caution, when informed of a fog signal of a vessel forward of the beam of the CONSTITUTION, the position of which was not ascertained; thereby contributing to a collision between the SS CONSTITUTION and the Norwegian Motor Tank Vessel JALANTA, on 1 March 1959.

29. The Board recommends that a study be initiated for the purpose of designing and establishing a system of guidance or control which will be capable of reducing the hazard of collision in maritime areas, such as the sea approaches to harbors and waterways, where the density or complexity of traffic introduces inordinate dangers to safe navigation, especially during periods of poor visibility caused by fog or other reason. As a departure point for discussion, two of several possible ideas offering a solution could be:

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a. An electronic system similar in principle to the Adcock Radio Range system, which would not require any special equipment on board vessels but merely low frequency radio receivers.

b. The establishing of uni-directional lanes properly separated by no traffic zones. The width of the lanes would depend on various factors such as size, shape and depth of the particular area. Where possible lanes of traffic two miles wide separated by 1 mile wide zones would be feasible. These lanes should, of course, be of sufficient length to enable shipping to reach points where dispersal is safe. At turn points, junctions and hubs of concentration of 2 or more lanes, zones of maximum speed limits would be required. These zones would be at least 5 miles in diameter.

(1) The above system would practically eliminate head on situations and require all ships to remain below a certain speed in crossing or junction areas.

(2) Collisions resulting from overtaking situations are rather infrequent and could be further reduced by having the fast traffic favor the outer side of the lanes while the slower vessels would favor the inner side next to the no traffic zone.

30. The Board recommends that, on passenger and freight vessels in Ocean or Coastwise service, consideration be given to the feasibility of requiring the installation of a waterproof stowage box in the vicinity of the bow, with at least one lifejacket available to the lookout.

31. It is recommended that save for the action indicated above the case be closed.


MARIUS DEMARTINO
Captain, U.S. Coast Guard, Chairman


METER PLOCHMAN
Commander, U.S. Coast Guard, Member


ROBERT A. COPELAND, JR.
Commander, U.S. Coast Guard
Member and Recorder