31 July, 1951 (88 EXAMPHIA -88 ELIZABETH C=3 B4)

From: Chief, Morchant Vessel Inspection Division

Te: Commandant

Via: Chief, Office of Merchant Marine Safety

Subj: Marine Board of Investigation; collision SS EXAMTHIA and SS ELIMABETH in vicinity Mich Maull Light, Delaware Bay on 16 Pobruary 1961.

- Pursuant to the provisions of Title 46 CoFoR. Part 1868 the record of the Marine Board convened to investigate subject easualty, tegether with its Findings of Fact, Conclusions and Recommendations, has been reviewed and is forwarded horswith.
- The freighter \$5 ELIZABETH of \$258 g.t. was downbound and the freighter \$5 EXAMTHIA of \$555 g.t. was upbound in the Delaware Bay shortly after midmight on 16 February, 1951. Both vessels were closing in on eppesite courses at a combined speed of approximately 50 kmets in a difficult part of the channel, in the vicinity of Mish Maull lighthouse. Both vessels became confused as to the course and intention of the daher and collided at 0205 16 February, 1951, in close proximity of said lighthouse. The weather was fine, clear and cold, northwest breeze and flood tide of about 1 kmot. One person was injured in this casualty. The ELIZABETH's damage was estimated at \$560,000,000 and that of the EXAMTHIA \$94,275,000.
- 3. The Board made the following Findings of Fact:
  - The SS EXANTHIA and SS ELIZABETH collided in lower Delaware Bay in the vicinity of the Mish Maull lighthouse on 16 February, 1951 at er about 0205, (All times in this report are plus five (5), some time.)

    Both vessels suffered extensive hull damage, but remained affect and were able to proveed to Philadelphia after the collision.

    The SS EXANTHIA and SS ELIZABETH collider in lower Delaware Bay in the St. Agnes Nospital, Philadelphia.
  - 2. The SLIZABETH, owned and operated by A. H. Bull S.S. Gompany, 115 Bread Street, New York, NoYo, was outbound from Philadelphia to New York, under the command of and had had had been been and had at the command of authority of his Coast Guard license. Her sailing draft was 14 feet forward and 28 feet, 8 inches aft.
  - 5. The EKANTHIA, ewned and operated by the American Expert Idne, 39 Broadway, New York. N.Y. was inbound from New York to Philadelphia under the command of

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on board sexing under the authority of his state pilet's license. Her draft at the pilet station was 11 or 12 feet forward, 21 feet and 10 inches aft.

4. The weather prior to and at the time of collision was fine, clear and cold. A moderate northeast breeze was blowing, and the tide was flooding with a velocity of about a knot at the scene of the collision.

## 50 Ship characteristics:

Name of vessel:	ELIZABETH	RIANTHIA
Hationalitys	U.S.A.	U.S.A.
Type:	Dry Cargo (st. so.)	Dry Carge (sto so.)
Official Number:	245188	241176
Home Ports	New York, N.Y.	New York, N.Y.
Builts	Wilmington, NoC. 1944	Bath, Maine 1941
Longths	441.2	402.0
Boans	68.2	60,2
Depths	56.7	36.0
Drafts	14' Fe	11' or 12' F.
	25.8' A.	21.10 A.
Gross Tonnage:	8,258	6,658
Net Tonnage:	4,832	3,813
Engines	Steam, single serew	Steam, single serew
Damage:	Starboard side in way of #1 hold, shell plating and frames	Bow plates and frames
	and reefer boxes.	

6. Pertinent course changes and bells from log and bell becks follow:

Timo	ELIZABETH (2/15/51)	Time	Exanthia
0116 0125 0150 0204 02062	Ship John Buoy #55 Elbow Cross Ledge Lighth Full astern - stop Collided	1258 0 use0131 0145 0202 0204 0205	Pilot aboard and proceeded Full shead Brandywine Fourteen Foot Bank Lighthouse Miah Maull Stop Full astern - hit

7. The ELIZABETH sailed from Pier 16 south, Philadelphia, at or about 2150 on the 15th of February bound for New York. Prior to sailing, all the navigating gear had been tested and was in good condition with the exception of the gyro recorder which had been inoperative for months. She naccorded uneventfully down the river under the con of pilot and passed the blow of Cross Ledge Lighthouse to pert at 0150 on the 16th. At this point the course was changed to 145 pogeous and her speed estimated at about 15 knots. It was also in this vicinity that the tide changed from ebb to flood.

When pilot attention was first drawn to the EXAMPHIA he noticed her about abeam of Gas Buoy 19 and slightly to the westward of it. As the vessels closed, he picked up the EXAMTHIA's green side light at an estimated distance of four (4) to five (5) miles, and according to his estimate of the situation, the vessels had a safe starboard to starboard passing. When the vessels were about two (2) miles apart and the ELIZABETH's position below Buoy 27, two blasts were sounded in accordance with the pilot's estimate of the situation that the inbound steamer would pass to starboard, since only the green side light could be seen. No answer to the passing signal was heard and it was repeated with the same result. The signal was sounded for a third time as the vessels closed rapidly. By this time, the ELIZA ETH and the EXANTHIA had closed to about a half mile and the rudder was ordered full left, the danger signal sounded and the engines rung full astern. As the ELIZA ETH answered her helm, it was noticed that the EXAMTHIA had closed in her green side light and was showing her red. While both vessels were thus swinging, the EXANTHIA Grashed into the ELIZABETH's starboard side at 0205%, the point of impact being in No. 1 hold where the bow of the EXANTHIA penetrated 85 feet. The flooding of the hold changed the ELIZAHETH's draft from 14 feet forward, 20.08 feet aft to 18.11 feet 18.05 feet aft. At the time of the impact the ELIZABETH's head was noted at 125 and the EXASTHIA's, 008, almost a right angle. The engine officers of the ELIZARTH testified that the full astern bell had been answered, but full astern motion on the engines had not been reached when they felt the impact.

As the vessels lay locked together the third mate of the ELIZA METH took cross bearings, but this was not considered an accurate fix for the point of collision inasmuch as the vessels collided while under considerable headway; the current was setting at more than a knot and the bearings themselves were nearly reciprocal.

The EXAMTHIA sailed from New York for Philadelphia on 15 February. 1951. Prior to sailing her navigating gear had been tested and logged as in good working order. She proceeded to the vicinity of the pilot station at the entrance to Delaware Bay where pilot shortly after midnight on the 16th. She proceeded up the bay and the left the bridge in the pilot's charge in the vicinity of Brandywine Lighthouse. When near Fourteen Foot Bank Lighthouse a tanker, afterward identified as the SOUTHERN SUN, was overtaken and passed in the vicinity of Gas Buoy No. 19, (Delaware By Main Channel Lighted Bell Buoy 19). In order to avoid crowding the tanker, which was near the center line of the channel and deep laden, the pilot directed the EXANTHIA to the westward of the buoy. He then set a course so as to gradually work back into the channel line and considered he had done so when Buoys 25 and 27, (Delaware Bay Main Channel Lighted Buoy 25 and Delaware Bay Main Channel Lighted Buoy 27), were in range. At this point he noticed two outbound vessels, one showing a green side light and the other at a greater distance, showing a red. He hauled slightly to the right, to the amount of about two degrees, to a course of 330, and as the nearer vessel, afterward identified as the ELIZABETH, continued to show a

green light, he ordered a further course change to the right to 382 and then 385 in order to get his vessel over on the right hand side of the channel. The EXANTHIA passed Mish Maull aboum at 0202, and at this point when the vessels were about a mile apart, the pilet blow his first signal, one blast, to indicate a port to port passing. He stated he heard a two blast signal from the ELIZABETH and promptly stopped the engines, blew the danger signal and ordered the rudder full right. Captain who was in the room immediately below, heard the signal, rushed to the bridge and noting the proximity of the ELIZABETH rang the engines to full astern. As he did so he noticed that the BIIZABETH was swinging rapidly to the left and at 2:05 the testified that as soon as the collision vessels collided. Pilot securred he noticed that the sector of Elbow of Cross Ledge was red and that the position was south of Buoy 25. No other attempt was made to accurately fix the position of the collision since all hands answered the general alarm and the third mate on watch went to his emergency station. The engine room watch of the EXANTHIA testified that the engines were in astern motion when they felt the impact but had not reached full speed. It is noteworthy that the time of the collision as given by each vessel shows a difference of only a half minute. It was afterward ascertained that the vessel which the REANTHIA overtook and passed at Buoy 19 was the SS SOUTHERN SUE, a deep laden tanker inbound. Her master and mate on watch testified that the EXANTHIA overhauled and passed them in the vicinity of Buoy 19 and that in doing so she hauled out of the channel line passing the busy on her own starboard side. The SOUTHERN SUR at the time was nearly in mid channel. As the EXANTHIA drew shead the master noticed that she gradually hauled back into the channel line, so that when about 2,000 yards distant from him she was about dead sheed. He first noticed that a collision had occurred when he saw two vessels north of Mish Maull close together showing green lights, and he passed them shortly afterward in a position between Buoy 25 and Miah Maull Lighthouse. He considered the SUN to be nearly in the center line of the channel, and the ELIZABETH and EXANTHIA were looked together well clear of him to the eastward. He also testified that he saw both side lights of the ELIZABETH from the time she passed Cross Ledge and he again saw them when turning at Buoy 19, however, he then paid no further attention to her until after the collision. It was also assertained that the motor vessel DYNAFUEL had been overtaken and passed by the ELIZABETH between Ship John and Elbow of Cross Ledge just prior to the collisions Although the master and the mate could not positively identify the ELIZABETH, they stated that an outbound vessel had passed them to the eastward and since she passed well clear no further attention was paid to her. When the DYNAPUEL passed the site of the collision the ELIZABETH and EXAMTHIA were close together and near the center of the channel with the ELIZABETH heading about southwest. The master of the DYNAFUEL testified that he had plenty of room to pass to the westward of the vessels although he customarily followed the channel line to his right due to his shoal draft.

The Board took notice of the way and manner in which pilot reported this casualty. The ELIZAHITH was boarded by LCDR Sayer, USCG, en the morning of the collision shortly after she docked, and he was informed had left for New York. Pilot testified that the marine superintendent of the Bull Line, through Captain in fact, request him to remain on board. He also stated that he was familiar with the provisions of the marine easualty reports, inaumoh as they required a report in writing and in person, to the nearest Office of Marine Inspection. He also admitted knowing that the distance from the berth of the ELIZAHETH to the Philadelphia Marine Inspection Office was but two (2) eity blocks, yet he delayed reporting the casualty until he arrived in New York and then only by letter. His actions thereby caused the Board embarrasament, for his whereabouts were unknown when all of the other witnesses were available. It was also considered that pilot forreasons best known to himself, deliberately evaded the Roard.

## 4. The Board made the following Conclusions:

- It is considered that the principal cause of this collision was the lack of agreement on the passing situation and the failure of each pilot to recognize the dangerous speed with which the vessels were approaching each other, a velocity of more than 30 knots. On the one hand the pilot of the ELIZAHITH was well acquainted with the channel on Mish Maull range and know it as a constricted stretch of water with shoals on either side, hence any meeting situation could only be head and head. The Inland Rules, under which vessels navigate this channel, clearly calls for a port to port passing, and an attempt at any other was undertaken at his own risk. His actions, inviting a departure from the rules is well covered by: BIATCHFORD J. in the ST. JOHN, 7 HATCHFORD, 220, Federal Cases 12,224, (1870), in which is stated; "If by her two whistles she invited a departure from the rule, she took the risk both of her own whistle being heard and in turn, of hearing the response, if a response was made. She had no right to dictate to the other boat a departure from the ordinary rule of navigation, and the hasard of the consequences of giving such a signal, whether she heard such a response or not, rested upon her, if she persisted in her endeavor to pass on the starboard side of the other."
- 2. Pilot actions in ordering a full left rudder in extremis, leads to the conclusion, and other testimony bears this out, that the ELIZAHIH was on her own right side of the channel when the two blast signals were blown. The testimony of witnesses, from disinterested vessels, place the point of collision to the easterly side of the channel, showing that the ELIZAHIH moved a comparatively short distance to the left before the collision took place. Had the vessels passed clear of each other

without a course change, the channel boundary to the west allowed the EXANTHIA little sea room. It was testified by ELIZAHETH witnesses that they estimated a passing about 75 feet between the vessels and this is considered unsafe and poor judgement inasmuch as these ships were approaching each other at 85 knots.

- EXAMPHIA is deemed ill considered. He too was well aware of the constructed nature of the Mich Maull channel and the consequent requirement for a port to port passing by his own admission, however, he permitted the EXAMPHIA to be navigated on the left or westerly side of the channel with no consideration of the embarrasement the action would cause approaching vessels. It is considered that pilot had ample speed and room to get over on the right hand side of the channel without delay after he passed the SOUTHERN SUN rather than attempting to gradually work back into the channel line as he did. Further, this course of action, admittedly carried the EXAMPHIA very close to Buoy No. 25, (Delaware Bay Main Channel Black Can Buoy C-25), with the possibility of hitting an aid he could not see.
- 4. It is considered that pilot permitted his vessel to proceed into the jaws of danger before he took any remedial action. Well sware of his speed and a green light in plain view bearing down on him he waited until he was abeam of Miah Haull, less than a mile from the approaching ship, before stopping his engines. The half mile rule was designed for slower vessels, and this fact is ordinarily taken into consideration by pilots of high speed ships, since any doubt of intentions must be clarified in time to avoid collision, practically an impossibility under the half mile rule with a combined velocity of over 50 knots.
- 5. It is considered that the performance of duty on the part of each master was all that could have been asked of them under the conditions. When summoned on the bridge with collision imminent, each took all means in his power to avoid it, and failing that, to lessen the impact. It is therefore considered that neither master deserves censure, and it is likewise considered that actions of the crews of each vessel were equally faultless.
- 5. The Board made the following Recommendations:
  - 1. In view of the above, it is recommended that pilot be cited for violation of Article 18, Rule 1, of the Inland Rules.

- 2. It is recommended that pilot not be charged with negligence under R.S. 4450 in view of the citation recommended in Paragraph 1.
- 5. That pilot be charged with misconduct for deliberate refusal to comply with the provisions of the law for reporting a marine casualty.
- 4. That the ELIZAHATH be eited for violation of Article 18, Rule 1, of the Inland Rules.
- 5. That the EXAMTHIA be cited for failure to properly comply with the provisions of Article 18, Rule 1, of the Inland Rules.
- 6. That pilot be cited for violation of Article 18. Rule 1, of the Inland Rules.
- 7. That pilot be charged with negligence for failure to properly comply with the provisions of Article 18, Rule 1, of the Inland Rules.
- 8. That inasmuch as pilot was acting under the authority of his state pilot's license, a copy of this report and the proceedings of the Board transmitted herewith be provided to the American Pilots' Association, 428 Washington Building, Washington, D.C. for their information and appropriate action.
- 9. That the monetary penalty recommended against pilot be held in absymment pending action by the appropriate State authorities.

## REMARKS

- 6. Conclusion 1 of the Board quotes verbatim a federal court decision (Federal cases 12,224 1870) in support of the conclusion that the circumstances under which the subject vessels navigated the channel in question clearly called for a port to port passing. Under the provisions of R.S. 4450, as amended, and regulations thereunder, a marine board is required to establish, as far as possible, the cause and responsibility for the casualty as well as other determinations for the purpose of carrying out the Coast Guard's obligation to take all appropriate measures for the safety of life and property at sea. Citation of judicial precedent is unnecessary in carrying out this investigative function and should be avoided.
- 7. Subject to the foregoing remarks, it is recommended that the Findings of Fact, Conclusions and Recommendations of the Marine Board of Investigation be approved.



Chief, MVI Division to Commandant

51 July, 1951 (EXANTHIA - ELIZABETH C-5 Bd)

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From: Chief, Office of Merchant Parine Safety

To: Commendant

Subj: Marine Board of Dwestigation; collision 88 EXAMPHIA and 88 ELIZABETH

in vicinity Mish Maull Light, Delaware Bay on 16 February, 1951

Forwarded, recommending approval.

APPROVED:

31 August, 1951

A. C. RICHMOND

Rear Admiral, U. S. Coast Guard

Acting Commandant