

UNITED STATES COAST GUARD

ADDRESS REPLY TO:



FILE: MVI

2 AUGUST 1955

(MORMACSPRUCE -

USS WILLIAM T. POWELL -
C-3 Bd)

Commandant's Action

on

Marine Board of Investigation; collision involving SS MORMACSPRUCE
and USS WILLIAM T. POWELL in Delaware Bay on 31 March 1955

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, Conclusions, and Recommendations, has been reviewed.

2. On 31 March 1955 the SS MORMACSPRUCE, a cargo vessel of 7902 g.t., fully loaded, was outbound in Delaware Bay, and the USS WILLIAM T. POWELL, a destroyer escort, was inbound from sea. Very shortly after 2000, during clear weather, both vessels were approaching Elbow of Cross Ledge Light, a bend in the channel, and both vessels were in sight of each other. The downbound MORMACSPRUCE, to compensate for a current set, altered course and when abeam of Cross Ledge Light, was in the eastern or left side of the channel, with the intention of maintaining course which would place her in her right-hand side of the channel after passing the bend. The POWELL, approaching Elbow of Cross Ledge Light on her own starboard side of the channel, became uncertain of the intentions of the MORMACSPRUCE and after having failed to receive an answer to her one-blast signal for a port to port passing, changed course hard left. Almost simultaneously the MORMACSPRUCE changed course hard right and soon thereafter, at approximately 2015, both vessels collided. The MORMACSPRUCE incurred bow damage and the POWELL suffered extensive hull damage to her aft starboard side. No persons were killed but two persons were injured on the POWELL.

REMARKS

3. The Board in its Conclusions in effect states that the failure of the POWELL to give the danger signal when she became uncertain as to the intentions of the MORMACSPRUCE was the initial error leading to the collision. The Board also states to the effect that the MORMACSPRUCE was in the eastern or left side of the channel, that she did not give a one-blast signal for a port to port passing, and that she was in violation of the starboard hand rule. Since the record and the Board's report clearly establish that these errors on the part of the MORMACSPRUCE were antecedent to the error of the POWELL in her failure to give the danger signal when

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she became uncertain as to the intentions of the MORMACSPRUCE, such failure on the part of the POWELL cannot therefore be considered the initial error in the sequence of errors which led to the collision. Although the record establishes that both vessels were at fault, it is nevertheless clear that had the MORMACSPRUCE navigated on her own side of the channel or otherwise complied with the pilot rules, this collision in all probability would not have occurred.

4. In conformance with the agreement between the U. S. Coast Guard and the American Pilots' Association, a copy of the Board's report, together with the Commandant's action thereon, will be forwarded to the American Pilots' Association for appropriate action with respect to the pilot of the MORMACSPRUCE, who was acting under the authority of his State pilot's license at the time subject casualty occurred.

5. Subject to the foregoing Remarks, the Findings of Fact, Conclusions, and Recommendations of the Marine Board of Investigation convened to investigate subject casualty are approved.

(signed) A. C. Richmond

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

REPORT
OF A
MARINE BOARD OF INVESTIGATION

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

2, 4, & 5 April 1955

To Inquire Into and Investigate the Circumstances Surrounding
The Collision between the SS MORMACSPRUCE and
U.S.S. WILLIAM T. POWELL (DE-213)
With No Loss of Life in the Delaware River
on 31 March 1955

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

FINDINGS OF FACT:

1. At 2015 EST 31 March 1955, the SS MORMACSPRUCE and the USS WILLIAM T. POWELL (DE-213) were involved in a collision on the Miah Maull Range in Delaware Bay, one-half mile, 175 degrees true from Elbow of Cross Ledge Light.
2. The MORMACSPRUCE incurred bow damage from the thirty (30) foot water-line upwards for about 10 to 12 feet, the damage amounting to about \$20,000. The POWELL suffered extensive hull damage to her aft starboard side in way of frames 113 to 125, including a 10-foot penetration and a gash extending from her main deck to below the waterline in way of the second platform deck. The force of impact snapped the vessel's starboard shaft.
3. No injuries were sustained by the personnel aboard the MORMACSPRUCE. However, two of the personnel assigned to the POWELL—Fireman [REDACTED] and Seaman [REDACTED] thrown from their feet on impact, required hospitalization, suffering contusions to back and extremities.
4. The weather on the night of the casualty was clear with good visibility, wind direction north, about force one. The tide was on the last stage of the ebb with a 1.5 knot current running in a southerly direction.
5. The casualty took place below the juncture of Cross Ledge Channel and Miah Maull Range. The true course southbound of Cross Ledge Range is 156° true and on Miah Maull 145° true. The reciprocal course of Miah Maull is 325° true. Both channels have a project depth of 40 feet, and are 1,000 feet wide. The juncture is marked to the east by Elbow of Cross Ledge Light which stands outside the charted channel at about 700 feet. The western edge is marked by Lighted Buoy #29, and the buoy is charted about 250 feet from the edge of the channel.
6. The SS MORMACSPRUCE, O.N. 247079, is a Victory-type vessel of 7,902 gross tons, length 439 feet, breadth 62 feet, depth 34.5 feet, built in Richmond, California in 1945, and develops 6,000 horsepower. She is owned and operated by the Moore-McCormack Lines, Inc., of New York, and at the time of the casualty was under the command of [REDACTED], assisted by [REDACTED] on board in the capacity of pilot, acting under the authority of his State Pilot's license issued by the State of Delaware.

7. The USS WILLIAM T. POWELL (DE-213) is a turbo-electric drive, twin-screw, escort type naval vessel, attached to the operational command of the Fourth Naval District as a reserve training ship. She is 306 feet in length, 34 feet in breadth and a depth of 15 feet, allowing for the sonar dome. The POWELL has a displacement of 1,600 tons and develops 12,000 horsepower. The Commanding Officer of the POWELL was LT [REDACTED], USN, and at the time of the casualty, LT [REDACTED], USN, Executive Officer, was at the con, assisted by LTJG [REDACTED], USNR, Officer of the Deck.

8. On the afternoon of 31 March 1955, the SS MORMACSPRUCE departed Philadelphia bound for New York loaded with 7,900 tons of bulk and general cargo at a draft of 26'0" forward and 27' 10" aft. Having proceeded without unusual incident, the vessel, now gaining the advantage of the ebb tide made good a speed over the ground of about 16.4 knots. At 2000 the vessel rounded Buoy #32 onto Cross Ledge Range to a heading of 155° PGC 156° T. At that time the lights of an inbound vessel, which later proved to be the POWELL, were observed and a radar check showed the vessels to be eight miles apart, the POWELL in the vicinity of the Miah Maull Light 4 1/2 miles below Cross Ledge Light and the MORMACSPRUCE 3 1/2 miles from Cross Ledge. The POWELL was kept under continuous observation by the pilot who was at the con, assisted by the third officer, with the bow lookout and the helmsman completing the watch. The master was located in the chart room just abaft the wheelhouse. All ports on the bridge were closed, and only the port door was open.

9. As Buoy #31 was passed abeam to starboard at about 250 feet, the pilot, to offset the effect of a southwesterly set experienced in that vicinity, altered course to 153° PGC, 154° T. steering for a point half-way between Cross Ledge Light and Buoy 29 with the belief that these lights marked the boundaries of the channel. As Cross Ledge Light stands 700 feet outside the eastern boundary of the channel this alteration directed the MORMACSPRUCE's course toward a point about 250 feet inside the eastern edge.

10. Just prior to the MORMACSPRUCE passing abeam of Cross Ledge Light the POWELL was observed about one point on the port bow showing both red and green side lights. At 2014 the MORMACSPRUCE passed abeam of Cross Ledge Light an estimated distance of 800 feet to port, locating the MORMACSPRUCE near the eastern side of the channel. At this time the POWELL was observed to show only her red side light as the MORMACSPRUCE began to cross ahead of the POWELL's course. As the sequence of lights presented by the POWELL was considered normal for the configuration of the channel, and with the ships now showing red to red, the pilot assumed both vessels would effect a normal port to port passage, and sounded no signal. However, to allow the upbound vessel more clearance he held the MORMACSPRUCE on her 154° T

course to haul her to the west, with the intention of coming left to 145° T, the course of the Miah Maull Range, when clear of the POWELL's course. Expecting the bearing of the POWELL to widen, the pilot suddenly observed both side lights of the oncoming vessel. He immediately ordered the rudder hard right, and at that instant heard a two-blast signal emanating from the POWELL. The Pilot ordered "stop" and "full astern" to the engine, as the POWELL was seen to swing sharply to her left across the bow of the MORMACSPRUCE. The master, hearing these orders, rushed to the bridge to see the POWELL fine on the port side at nearly right angles to the MORMACSPRUCE. The engine responded promptly, but in about 30 seconds the MORMACSPRUCE struck the POWELL on her starboard side aft at an angle of about 90 degrees. The momentum of the MORMACSPRUCE and the shock of the impact carried both vessels a considerable distance until the deeply laden MORMACSPRUCE grounded to the westward of the channel. The POWELL meanwhile swung to her right and came alongside the MORMACSPRUCE's starboard side where she was made fast, and measures taken to check flooding. The two ships separated at 0008, 1 April 1955, when it was understood the POWELL was out of danger.

11. The WILLIAM T. POWELL (DE-213), inbound on a reserve training cruise from Havana, Cuba, arrived off the Delaware Capes and passed OVERFALLS LIGHT VESSEL abeam at 1844, 31 March 1955. The POWELL made regular channel approaches and increased speed to full, making 300 r.p.m.'s and 16.8 knots over the ground at 1907 as she entered Brandywine Channel. At 1953 the ship entered Miah Maull Range changing course to 325° PGC and T. At about this time the 2000-2400 watch relieved, and LTJG [REDACTED], USNR assumed the con as Officer of the Deck. Present also were the Commanding Officer, the Executive Officer and the regular watch stood in conformance with that vessel's Special River Detail Bill. This detail stationed men on the bearing repeaters who called out various bearings which were recorded in the bearing book and plotted by LT [REDACTED]. Course changes and recommendations were passed from [REDACTED] to the Officer of the Deck. It is noted, that subsequent to 1957, the accuracy of the fixes is open to question, but only in exactly establishing the position of the POWELL, for a re-plot of the bearings show her steady advance up the eastern side of the channel. At 1957, when the position of the vessel was determined to be somewhere near the center of the channel, a course alteration of two degrees was made to the right to allow downbound traffic more clearance. The vessel returned to the range course of 325° at 2002 when it was determined that the POWELL was near the eastern edge of the channel. Simultaneous with a report from the Combat Radar Watch that a downbound vessel on Cross Ledge Range was approaching at 13 knots, a vessel, which later proved to be the MORMACSPRUCE, was sighted about 6 to 7 miles away showing open ranges and red running light, by Krieger and the Commanding Officer. Shortly thereafter, with everything appearing normal, the Commanding Officer instructed the Executive Officer at the chart desk to keep a check on the ship's progress and went below at about 2005.

12. As the POWELL approached Buoy #27 the Executive Officer, concerned over the fact that Buoy #28 was not visible, instructed the Officer of the Deck and the watch to keep a sharp lookout for the buoy on the assumption that it was out of position or unlit. As [REDACTED] searched for the buoy he began taking bearings of the approaching ship, and observed that the MORMACSPRUCE was on a steady bearing of 329° T., on the starboard bow showing her red light and range lights open slightly to the left. The range lights of the MORMACSPRUCE appeared to nearly close as the MORMACSPRUCE merged into and passed behind Cross Ledge Light, and it further appeared to [REDACTED] that the MORMACSPRUCE would pass very close to Cross Ledge Light.

13. The POWELL passed Buoy #27 at 2011, 200 yards to port, according to the estimate in the quartermaster's log, although the navigator's work on the chart placed her more to the eastward in the channel. From here the Officer of the Deck watched the MORMACSPRUCE closely, and although the MORMACSPRUCE was still on the course of Cross Ledge Range, he became extremely concerned as the MORMACSPRUCE remained fine on the starboard bow with no change in bearing. The O.D. called Mr. [REDACTED] to conn from the chart table and informed him that the ship was coming down the POWELL's side of the channel and cutting close to Cross Ledge Light. The Executive Officer, presented with the MORMACSPRUCE very fine on the starboard bow with range open slightly to the left and showing only a red running light, ordered the engines slowed at 2013.5 to 2/3 speed, and one blast sounded on the whistle, the vessels being about one mile apart. Mr. [REDACTED], aware of his own position on the easterly side of the channel, could see the MORMACSPRUCE was also to the east as she passed Cross Ledge Light. No answering signal was heard from the MORMACSPRUCE, and her red side light and nearly closed range lights remained nearly ahead. The Executive Officer, concerned over the unsighted buoy #28, which should be close at hand, and not knowing or associating with the draft of his vessel that sufficient water lay to the east of Elbow of Cross Ledge Light, readily accepted the O.D.'s opinion that the MORMACSPRUCE was about to alter course and pass down the right side of the POWELL, and assented to his request to sound a two-blast signal. The two-blast signal was sounded about 30 seconds after the first signal of one blast, and as the signal was sounded Mr. [REDACTED] ordered the rudder hard left. The POWELL answered her rudder and having heard no reply, sounded a second two-blast signal. Not clearing the oncoming vessel, the engine order "Starboard ahead Full, Port Stop" was ordered to give the POWELL more left spin, and at this time it was realized the MORMACSPRUCE was coming right. The Commanding Officer, upon hearing the two-blast signal rushed to the bridge, and arrived in time to hear the engines and the

rudder shifted in an attempt to swing the stern clear of the oncoming bow of the MORMACSPRUCE about 300 feet away, abaft the bridge of the POWELL. This emergency maneuver was not sufficient to avert collision, and the POWELL was struck, after coming left 60 to 90 degrees. Just prior to the collision the Officer of the Deck sounded the collision alarm and ordered Condition "Able" set throughout the ship. All engines were stopped after the impact. The damage control organization operated effectively to minimize the effects of the collision damage.

14. The engine room clocks of the POWELL and the MORMACSPRUCE, when compared and corrected to the clocks used for navigation on both vessels, recorded the time of the collision at 2015.

15. The board on its reconstruction of the navigational data available, using those positions of the POWELL establishing her to be in the eastern or right half of the channel, found that it was graphically impossible to plot the MORMACSPRUCE anywhere but on the east side of Cross Ledge Channel, using the naval vessel's steady bearing of 329° T., and dead reckoning the advance of the MORMACSPRUCE simultaneously with that of the POWELL.

16. Buoy #28 was discontinued on station on or about 23 March 1955, and notice of discontinuance contained in Notice to Mariners #12, distributed on 19 March 1955 was not received aboard the POWELL.

CONCLUSIONS:

1. In the Board's opinion, this case is a typical example of a standard meeting situation, where one vessel, in doubt as to the intention of the other, changes course to the left in violation of the basic rule calling for a port to port passing. In this case the POWELL, the left-swinging vessel, further established her uncertainty by acting without receiving assent to her proposal from the oncoming MORMACSPRUCE.

2. It is further believed by the Board, that no unreasonable situation presented itself to those navigating the POWELL. The MORMACSPRUCE showed only those lights normal for a ship approaching on the course of Cross Ledge Range, and bore steady as the vessels approached a common junction in the channel at nearly equal speeds.

3. It is evident that the failure of the MORMACSPRUCE to answer the one blast proposal of the POWELL created in the minds of the officers navigating the POWELL an uncertainty as to the MORMACSPRUCE's intention. The existence of this doubt warranted compliance with Article 18, Rule 3 of the Inland Rules, 33 USC 203, which requires the danger signal, and the failure of the POWELL to so comply was the initial error leading to the collision. Prudent navigation further imposed the necessity of slowing or stopping the vessel when the intentions of the MORMACSPRUCE were of immediate concern to those in charge of the POWELL.

4. It is felt that this concern over what the MORMACSPRUCE would do, rather than what was indicated by her lights, prompted the assumption that the MORMACSPRUCE was about to alter to the course of Miah Maull and stand into the POWELL. Without further reduction in speed and without allowing the earlier speed reduction to effect a change in the steady bearing of the outbound MORMACSPRUCE, the POWELL proposed a passage contrary to the rules and immediately altered to the left across the course of the MORMACSPRUCE, standing the POWELL into collision.

5. The Board, in accepting the MORMACSPRUCE pilot's estimate of distance off when abeam of Cross Ledge Light, realizes that his estimate of distance off may have partially been based on his belief that the light marked the edge of the channel, but notwithstanding this estimate or the westerly set of the current, the course steered by the MORMACSPRUCE placed her on the left or east side of the channel as she passed Elbow of Cross Ledge Light. In the absence of any testimony to the contrary that it was not safe and practicable to be to the starboard hand of the channel, as the situation warranted, the MORMACSPRUCE violated Art. 25 Inland Rule 33 USC 210. Notwithstanding this position to the east as the MORMACSPRUCE passed Cross Ledge, it is the opinion of the Board, the pilot's decision to hold the course of Cross Ledge Range had the intent to draw his vessel to the right with respect to the POWELL's course, and would have cleared, considering the POWELL's proper position on the easterly side of the channel, had not the POWELL altered to its left at the precise moment the bearing of the MORMACSPRUCE would have opened, clearing the way for the POWELL.

6. The Board feels it unnecessary to comment on the failure of the MORMACSPRUCE to hear the initial whistle signals from the POWELL, but it suffices to say that the MORMACSPRUCE, obligated by regulation to pass port to port and initiate her own proper signal, failed in the responsibility of sounding her intention in compliance with Art. 18, Rule 1, Inland Rules, 33 USC 203.

7. The failure of the MORMACSPRUCE to sound her intentions when coming hard right and backing full astern on seeing the side lights of the POWELL turn toward the MORMACSPRUCE is statutorily in error, but did not contribute to the collision.

RECOMMENDATIONS:

1. In view of the fact that under the provisions of R.S. 4450, no action can be taken against the principals involved in the collision, it is recommended that no further action be taken and the case closed.

MMIS 12012

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

(signed) J. M. McLaughlin
J. M. McLAUGHLIN
Commander, U. S. Coast Guard

(signed) [REDACTED]
[REDACTED]
Lieutenant, U. S. Coast Guard

At 1630 hours the Board adjourned to await the action of the Convening Authority.

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

(signed) [REDACTED]
[REDACTED]
Lieutenant, U. S. Coast Guard
Member and Recorder