

Preliminary Investigation into the circumstances of the collision between the M.V. Yue Man and the M.V. Charles H McKay and the subsequent foundering of the M.V. Charles H McKay on 20 June 1984 at Melbourne.

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AUTHORITY TO CONDUCT INVESTIGATION

On 21 June 1984 Captain Godfrey Philip Horscroft, Regional Director of Transport, Victoria/Tasmania, was appointed under sub-section 377A(1) of the Navigation Act 1912 to make a preliminary investigation into the circumstances of the collision between the Panamanian ship Yue Man and the motorised hopper barge Charles H McKay and the subsequent foundering of the Charles H McKay off Breakwater Pier, Williamstown in the Port of Melbourne on 20 June 1984, and in particular:

whether any wrongful act or default by any person was a contributing factor to the collision;

whether both vessels were seaworthy at the time of the collision; and

whether the master and crew of each vessel took all the necessary steps to protect life and property after the collision.

Following the unfortunate death of Captain Horscroft on 23 June 1984, Captain Henry David Holmes was appointed on 25 June to conduct the preliminary investigation.

INTERVIEWS. ETC

On 21 June Captain Horscroft boarded the Yue Man and interviewed the Master, Chief Officer, Second Officer and Third Officer. Captain Horscroft also examined their certificates of competency and relevant ship's documents.

On 22 June Captain Horscroft interviewed Captain R J Woodhead, who was piloting the Yue Man at the time of the collision.

On 26 - 27 June Captain Holmes interviewed the Master, Mate and helmsman of the Charles H McKay, and Captain Brown, the Assistant Harbour Master on duty in the Shipping Control Centre (Harbour Control).

On 27 June an inspection was made of the damage to the Charles H McKay in the floating dry dock and a transcript was made of Harbour Control's recording of radio communications relating to the collision.

Information was obtained from the Port of Melbourne Authority's Senior Surveyor regarding tidal streams. His advice was that the tidal stream effect in the vicinity of Breakwater Pier at the time of the collision would have been negligible.

VESSEL DATA

YUE MAN

OFFICIAL NUMBER	5133-75-A
PORT OF REGISTRY	Panama
OWNERS	Yue Man Shipping, SA, Panama
TYPE	Three cargo hatches. Navigating Bridge, accommodation and engine room aft.
CONSTRUCTION	Welded Steel
BUILT	1975 by Kochiken Zosen, Kochi, Japan
GROSS TONNAGE	6131.91
NET TONNAGE	4301.29
DEADWEIGHT	10186.99 tonnes
LENGTH OVERALL	127.97 metres
BREADTH EXTREME	18.34 metres
DEPTH MOULDED	9.89 metres
SUMMER DRAUGHT	7.755 metres
PROPULSION	Single screw
MACHINERY	Diesel 4413 kW
SERVICE SPEED	13.5 knots

CLASSED

Nippon Kaiji Kyokai (NKK)

CERTIFICATES

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| CARGO SHIP SAFETY EQUIPMENT CERTIFICATE | - Issued by NKK for the Government of Panama and valid to 14 March 1985 |
| CARGO SHIP SAFETY CONSTRUCTION | - Issued by NKK for the Government of Panama and Valid to 26 May 1988 |
| LOAD LINE | - Issued by NKK for the Government of Panama and valid to 26 May 1988 |
| CARGO SHIP RADIO TELEGRAPHY | - Issued by NKK for the Government of Panama and valid to 3 October 1984 |
| OIL POLLUTION PREVENTION CERTIFICATE | - Issued by NKK for the Government of Panama on 27 May 1983 |

CHARLES H MCKAY

OFFICIAL NUMBER	315412
PORT OF REGISTRY	Melbourne
OWNERS	Port of Melbourne Authority
TYPE	Hopper Barge with two holds and bottom doors. Navigating Bridge, accommodation and machinery aft
CONSTRUCTION	Welded and Riveted Steel
BUILT	1962-63 by R Dunston (Hessle) Ltd, Hessle, UK
GROSS TONNAGE	799
NET TONNAGE	257
LENGTH OVERALL	55.33 metres
BREADTH EXTREME	11.28 metres
DEPTH MOULDED	5.19 metres
MAXIMUM DRAUGHT	4.503 metres
PROPUSION	Single screw
MACHINERY	Diesel 808 kW
SERVICE SPEED	8½ knots

CERTIFICATES

CERTIFICATE OF SURVEY	- Issued by Marine Board of Victoria on 31 January 1984, expired 16 June 1984.
CERTIFICATE OF RADIO TELEPHONY SURVEY	- Issued by Marine Board of Victoria and valid until 15 January 1985

SEQUENCE OF EVENTS

On 20 June 1984 the Charles H McKay was employed in transporting dredged material from the dredger A S Mayne, operating in Appleton Dock, to the spoil ground in Port Philip Bay. It dumped its load at the spoil ground at about 2105 and was proceeding back towards the Port. As was customary with the Master, Captain Keeble, the helmsman steered directly towards the occulting red light behind Princes Pier, a course which took the Charles H McKay to the west of the Fawkner Beacon and the Port Melbourne Channel. The Master was keeping the navigating watch, having taken over from the Mate at the spoil ground. Mr Buttigieg had taken over the helm at the spoil ground and in the engine room the greaser, Mr Dib, was on duty.

The clock on the Charles H McKay was some minutes fast, possibly between 5 and 10 minutes. Therefore, the times of events as recalled by those on the Charles H McKay cannot be regarded as accurate. However, as radio communications were recorded and the times electronically logged by Harbour Control it is possible to fix the time of the collision at a few seconds before 2158. By reconstructing the voyage back from this time it is apparent that the Charles H McKay, heading about due North at approximately 8 knots, passed east of Gellibrand Shoal Buoy at around 2153 hours.

In the meantime the Yue Man had departed from its berth at No 2 Victoria Dock assisted by the tugs Buccaneer and Charles Waugh. The tugs were cast off as soon as the ship cleared the berth and were dismissed by the pilot off No 22 Victoria Dock. The tugs then proceeded down river ahead of the Yue Man as they were required for a ship at Webb Dock. The times recorded on Yue Man show the ship leaving the berth at 2125, tugs cast off at 2127 and the ship proceeding at Slow Ahead until 2142, when speed was increased to Half Ahead. Full Ahead was rung at 2153. The Yue Man passed under the Westgate Bridge at 2140 and passed No 23 Beacon at 2150. The time of collision is recorded in the Bell Book as 2159, so the clock on the Yue Man appears to have been one minute ahead of the clock on the communications recorder in Harbour Control. Using the latter as the time base it is apparent that the Yue Man came abeam of Breakwater Pier at around 2156.

By adjusting the time of the first engine movement to 2126, the Yue Man covered the 4.34 miles distance in about 30 minutes, an average speed in excess of 8 knots. Allowing for the stage by stage build up in speed the Yue Man was probably making around 10 knots as it passed Breakwater, considerably in excess of the 8 knot limit prescribed in the port regulations for that area. In regard to the recording of the Yue Man's speed, the times of passing the Harbour Control Tower and the Breakwater were logged by Harbour Control as 2132 and 2158 respectively. The Harbour Control Tower is adjacent to No. 2 Berth. Therefore, the computed speed based on Harbour Control's time is higher than that based on the ship's data. However the times recorded on the ship are consistent in relation to intermediate passing points. Therefore the speed computed from the ship's record is considered the more accurate.

Note: All times from this point of the report are either taken from the radio communications recorder clock or reconstructed using the clock as the time base. Where appropriate, times of radio messages are shown to the nearest second.

Captain Keeble first saw the Yue Man as the Charles H. McKay passed the Gellibrand Shoal Buoy at around 2153. He estimates the Yue Man was near No 20 Beacon. This is reasonably consistent with the distance each ship was from the place of impact and their relative speeds. Also about this time, the first of two or three minor alterations of course was made to port the hopper running parallel to, but outside and to the west of, the Williamstown Channel. Captain Keeble then called Harbour Control at 21-56-08 on UHF Channel 2, advised that he was approaching Breakwater, would pass the other ship green to green (starboard to starboard), asked for the name of the ship and said he would call the Yue Man. In this conversation he also asked the Assistant Harbour Master if the Yue man would keep in the channel. The Assistant Harbour Master advised him that the Yue Man's intentions were not known but it would probably not stay in the channel as it was light draught. This conversation terminated at 21-56-52. The Master then went to the other radio and called the Yue Man on VHF channel 12. His words "Yue Man Yue Man do you read me, over" are recorded by Harbour Control as terminating at 21-57-03. No reply was made from the Yue Man. As he was making this call, Captain Keeble noticed that the Yue Man swinging to starboard.

Captain Keeble then grabbed the wheel from Mr Buttigieg and put the helm hard to port. He also swung the engine telegraph to Slow Ahead but immediately rang Full Ahead again, before the first movement was answered by the engine room. The Charles H McKay was then struck on the starboard quarter by the Yue Man. The engine stopped innmediately and the hopper rapidlysettled by the stern. Captain Keeble estimates the Charles H McKay settled on the bottom within four minutes.

The pilot on the Yue Man first sighted the Charles H McKay when the Yue Man was abeam of No 20 Beacon. The pilot states the Charles R McKay, which was 1/2 to 1 point on his starboard bow, first showed the red side light then both sidelights and finally the green side light alone. According to the pilot, during the time both sidelights were visible the mast lights appeared to waver, as if the Charles H McKay was about to swing to starboard. At this stage the Yue Man was approaching the Breakwater Pier and the pilot made an alteration to starboard. The pilot sounded a short blast of the whistle. When the pilot realised the Charles H McKay had altered to port he ordered the helm hard to starboard and the engine full astern. The pilot estimates the engine had been going astern for about 90 seconds prior to the collision and actually moved astern within 20 seconds of impact. He estimates the Yue Man must have been making only one or two knots at time of impact.

The Master of the Yue Man first noticed the Charles H McKay about two points on the starboard bow after the Yue Man had passed Gellibrand Pier, therefore probably two minutes or so after the first saw it. The Master first saw the red sidelight which shortly afterwards changed to the green sidelight.

After the collision the pilot immediately advised Harbour Control by radio and the Yue Man then proceeded to anchor 5 cables south of Gellibrand Shoal Buoy. The Chief Officer ordered a lifeboat to be cleared away but it was not launched as he saw two other vessels approaching the Charles H McKay.

In the Harbour Control Tower the duty Assistant Harbour Master Captain Brown on learning of the collision immediately contacted the Charles H McKay to see if it required assistance. Being advised that it was taking water, he got the duty watchkeeper to call the Port Emergency Service while he contacted the tug Vital by radio and dispatched her to the scene. He then called the tugs Buccaneer and Charles Waugh, which were in the vicinity of Webb Dock. However, the tugs were already aware of the collision and were on their way to the scene.

When the Yue Man and the Charles H McKay collided some of the crew of the latter were flung down, four people sustaining injuries in the form of bruising and strains. The main engine stopped and the lights went out. The Master first dashed below to check the greaser was safe, then returned to the bridge and called Harbour Control. The greaser who was hurt in the collision had already been assisted out of the engine room by the off-duty able seaman. The Mate, who had been off duty, went to the bridge and heard the Master talking to Harbour Control. The Mate then ran down to the galley to alert the other crew members to go to the boat deck. The preparation for abandonment was far from orderly and only the Mate appears to have donned a lifejacket. However, by this time the Charles H McKay was quickly settling by the stern and water had already entered the accommodation. The Mate launched the liferaft and four of the crew, possibly also himself, embarked. The liferaft was held alongside the Charles H McKay by the painter.

The lights of the tugs coming to assist were then seen approaching. The men in the liferaft got out and cleared the mooring ropes which were floating around the ship so that the tugs' propellers would not be fouled. By this time the engineer, who had first ensured the doors to the engine room were properly closed, had joined the others on the boat deck. The tug Charles Waugh came alongside and the four injured persons were assisted aboard. They were shortly afterwards transferred to the Port Emergency Service's Shark Cat, a high speed rescue launch, which transported them to the First Aid Centre where they received treatment. The remaining three persons, the Master, Mate and Engineer left the ship some time later on the Vital.

DAMAGE

CHARLES H MCKAY

The hull of the Charles H McKay was penetrated to the extent that the accommodation house starboard bulkhead was indented 0.1 m. This bulkhead is about 1.28 m in from the ship's side at deck level. The indent in the bulkhead in relation to the hull damage was consistent with the Yue Man having struck from an angle just abaft the beam. In side elevation the hole in the ship's side plating was 2.45 m wide at deck level tapering down to 0.6 m wide at the base. The vertical extent of the hole was 2.88 m down from the deck. In plan view at deck level the hole tapered from 2.45 m wide at the ship's side to 0.56 m wide at the accommodation bulkhead.

On the basis of the Master's estimation as to draught, for'd 9'00" (2.74 m), aft 15'00" (4.57 m), the hole extended about 1.7 m in depth below the water line.

YUE MAN

The stem of the Yue Man was indented in depth to about 80 mm in the area corresponding to between the draughts of 3.00 m & 4.00 m. The port and starboard bow shell plating were also indented and slight distortion found in the internals. The hull was not penetrated.

CONCLUSIONS

The collision between the Yue Man and the Charles H McKay was caused by a combination of several factors, and the actions of the pilot of the Yue Man, the Master of the Charles H McKay and, to a lesser degree, the Port of Melbourne Authority's radio and port control procedures contributed to the casualty.

I find:

1. That the pilot of the Yue Man and the Master of the Charles H McKay made assumptions as to the intentions of the other and, acting on those assumptions, failed to take the proper precautions as required by the International Regulations for Preventing Collision at Sea (Collision Regulations) or the ordinary practice of seamen.
2. That the apparently common practice of light draught departing vessels leaving the channel beyond Breakwater Pier, and of some hopper masters coming up to the channel from behind the seaward side of the Pier, is hazardous. There is restricted room to manoeuvre in this vicinity and a possibility of a vessel being partially obscured by the Pier.
3. That the use of separate radio channels by different classes of ship to communicate movements to Harbour Control, and the absence of requirements for Port of Melbourne Authority vessels to report their positions and intentions in good time, were contributory factors to the casualty in so far as proper communications could have assisted each vessel to appreciate the intentions of the other.
4. That the Master of the Yue Man was not negligent in failing to countermand the pilot's orders. The Master was a stranger to the port and it was reasonable for him to assume the pilot would keep to the Channel.
5. That after the collision prompt and appropriate action was taken by the pilot of the Yue Man and the duty Harbour Control Officer to summon assistance.
6. That the call for assistance received an immediate and effective response from the tugs and the Port Emergency Service.
7. That the Yue Man was properly manned by persons holding appropriate qualifications and was seaworthy.
8. That the Charles H McKay was properly manned by persons holding appropriate qualifications and was seaworthy, except insofar as a valid Certificate of Survey was not held. However, this was not a contributory factor to the collision.

I also note that reference was made in evidence to an understanding, or unwritten rule, that Port of Melbourne Authority hoppers keep clear of commercial traffic. Such understandings only have a place in traffic management where they avoid close quarters situations, are unambiguous and are accompanied by proper communications procedures.

The detailed conclusions are as follows:

The actions of the Master of the Charles H McKay:

1. That although Captain Keeble was aware that a ship was scheduled to depart, he failed to use his radio to establish in good time its whereabouts. He had ample opportunity to communicate with Harbour Control before entering the Port Area near Gellibrand Shoal Buoy, and was imprudent not to do so. However, he was not in breach of the Port Regulations as his ship was exempt from the requirement to report to Harbour Control.
2. That, although Captain Keeble probably first sighted the Yue Man at about 2153, he did not communicate with Harbour Control until 2156 and did not attempt to communicate direct with the Yue Man until 2157.
3. That Captain Keeble, intending to pass the approaching ship starboard to starboard and, knowing it was a frequent practice for commercial ships to leave the channel beyond Breakwater Pier, failed to indicate his intentions to the other ship either by radio or by the whistle signal authorized by Rule 34 of the Collision Regulations. Furthermore, the two alterations of course to port between the time he first sighted the Yue Man and his call to Harbour Control were very minor and still left his port sidelight open to the other ship.
4. That Captain Keeble made an error in judgement in using UHF Channel 2 to communicate with Harbour Control at a time when a close quarters situation was developing. He should have called the other ship direct on VHF Channel 12, or at least used Channel 12 to communicate with Harbour Control, so giving the Yue Man the opportunity to overhear the conversation.
5. That Captain Keeble failed to keep a proper lookout within the meaning of Rule 5 of the Collision Regulations. While on his own evidence and that of the helmsman, there is no doubt that he continued to watch the Yue Man when operating first the UHF radio then the VHF, his attention was not fully devoted to carefully observing the other vessel and he failed to make a full appraisal of the situation and the risk of collision. In this regard it is noteworthy that the VHF radio is at the back of the wheelhouse, whose windows are small, albeit numerous. Therefore, Captain Keeble was not placed in a very good position to observe the other vessel properly. His preoccupation with the radio was probably the reason he failed to hear the whistle signal made by the Yue Man.
6. That Captain Keeble was not proceeding at a safe speed as required by Rule 6 of the Collision Regulations. Notwithstanding the low maximum speed of his ship and its good manoeuvrability, he was imprudent in maintaining full speed in a situation of rapidly reducing sea-room. On the port side was shoal water, ahead was Breakwater Pier and to starboard was an approaching ship whose intentions were unknown.
7. That Captain Keeble's action in altering course hard to port was an error of judgement. He only took this action after he observed the Yue Man making a substantial alteration to starboard and, had the Charles H McKay also gone to starboard, the collision could have been avoided.

- a. That Captain Keeble's failure to sound two short blasts on the whistle to indicate his turn as he went hard to port was in breach of Rule 34 of the Collision Regulations, but that this failure was of no consequence to the outcome.
9. That Captain Keeble failed to sound the emergency alarm after the collision. However, he quickly accounted for his crew and then summoned assistance by radio.

The actions of the Pilot of the Yue Man

1. That the pilot, Captain Woodhead, had proceeded down the river at a speed in excess of the limits prescribed by Regulation 41 of the Port of Melbourne Authority Regulations and that his knowledge of that regulation was scanty, at least insofar as he stated the speed limit ended at Breakwater Pier whereas in fact it applies as far as Gellibrand Shoal Buoy for ships leaving the channel.
2. That by increasing the speed of the Yue Man as it approached Breakwater Pier, Captain Woodhead failed to proceed to a safe speed in accordance with Rule 6 of the Collision Regulations.
3. That Captain Woodhead, in view of his admitted doubts as to the intention of the Charles H McKay, failed to make the whistle signal prescribed in Rule 34(d) and failed to reduce his speed in accordance with Rule 8 (e), to allow more time to assess the situation.
4. That Captain Woodhead's decision to leave the channel may have been influenced by force of habit. The Master's observation as to the Yue Man's heading of 150° as it approached Breakwater Pier indicates that the pilot was already moving to starboard. Although the Charles H McKay initially showed a red light, it shortly afterwards showed both sidelights. This change in aspect was consistent with the Charles H McKay turning to run parallel to, but outside the channel, which bends at No 16 Beacon. With the benefit of his local knowledge the pilot should have recognised this possibility and proceeded with more-caution.
5. That the failure to make the whistle signal prescribed in Rule 34(a) to indicate the engine was going astern had no influence on the outcome.
6. That immediately after the collision Captain Woodhead took the proper measures to summon assistance to the Charles H McKay and then took the Yue Man to a safe anchorage.

The actions of the Master and crew of the Yue Man

1. That the Master relied on the advice of the pilot and, in view of his own lack of local knowledge and his satisfaction with the pilot's advice up to Breakwater Pier, was not remiss in allowing the pilot to give helm and engine orders direct.
2. That the Master had no prior knowledge of the pilot's intention to take the ship out of the channel at Breakwater Pier and, once the helm had been starboarded, there was insufficient time for the Master to properly assess the changed situation and take countermanding action.

3. That the Master's statement tht he did not see the other vessel's lights at an earlier stage because they were obscured by the Pier is plausible. The Charles H McKay was probably behind the Pier when first sighted by the pilot. The Master, lacking local knowledge, could have had sane difficulty in picking up the lights in the circumstances.
4. That engine movement orders were executed promptly, and that the times of engine movement orders and of passing points were properly recorded.
5. That, in preparing to launch a lifeboat, the crew of the Yue Man took proper steps to assist those on the other vessel.

The actions of the duty Assistant Harbour Master in the Shipping Control Centre (Harbour Control)

That Captain Brown maintained a proper radio watch throughout. Immediately he was advised of the collision he took the appropriate measures to summon assistance.

The Port of Melbourne Authority as Port Operator

1. That the absence of a requirement for vessels employed by the Authority to notify Harbour Control before proceeding inwards past Fawkner Beacon can leave Harbour Control unaware of the movement of vessels of significant size. In this instance an earlier exchange of information would probably have averted the collision. With the recent closure of the Breakwater Pier Signal Station, and considering that the seaward approaches to Breakwater Pier are obscured from Harbour Control, the exemption from reporting granted to vessels employed by the Authority should be reviewed. However, there is insufficient evidence to support media suggestions that, had the Signal Station been in operation, there would not have been a collision.
2. That, although the use of different radio working frequencies by the various types of port user is essential to avoid overcrowding, had there been a requirement that all communications relating to traffic movements be only on Channel 12, there would have been a good chance that the pilot of the Yue Man would have heard the call from the Charles H McKay to Harbour Control.
3. That the absence of any requirement for commercial shipping to notify Harbour Control of intentions to leave the channel was a factor which contributed to the uncertainty between the vessels prior to the collision.
4. That the actions of the pilot in exceeding the Authority's prescribed speed limits raises questions as to how strictly the limits are enforced.



