

Investigated accident case 4

Grounding, in Hayatomo Seto, Kanmon Passage, of a cargo vessel which was proceeding northeastward in restricted visibility because of thick fog, when she tried to avoid a vessel sailing ahead of her

Outline: Manned by a master and six crew members, Cargo Vessel A, which was sailing northeastward through the Kanmon Passage, Kanmon Port, for Tsukumi Port, Oita Prefecture, grounded on the west side of Moji Saki about 23 seconds past 0643 hours on December 10, 2008. Vessel A suffered dent damage to the shell plating but no fatalities nor personal injuries.

Events leading to the accident

Vessel A (cargo ship)

Gross tonnage : 699 tons
 L×B×D : 68.61m×11.50m×5.00m
 Flag state : Japan
 Crew members, etc : Master A and 6 crew members
 Loaded cargo : Limestone

At 0600 hours, Kanmon MARTIS announced, by VHF etc., to vessels in transit, a message of fog with a visibility of no more than 1,000 m for the eastern and southeastern parts of the Kanmon Passage.

Master A proceeded northeastward through the Kanmon Passage, posting the deck officer to the helm and the chief engineer to the engine control panel.

About 0622.24 hrs

When sailing in the vicinity of Kanmon Passage No. 26 lightbuoy, he obtained, from Kanmon MARTIS, information that the visibility had dropped to 0.35 nautical mile in the vicinity of the Kanmon Bridge.

With the visibility information obtained from Kanmon MARTIS, he still continued sailing at a speed of 7.6 knots over the ground.

About 0631.24 hrs

When sailing near Kanmon Passage No. 30 lightbuoy, he observed, by radar, Vessel B (*), which was sailing from the west coast of Moji-ku in the direction of the Kanmon Passage.

She followed Vessel B, which was sailing in the same direction.

About 0640.45 hrs

When sailing at a position about 0.25 nautical mile short of reaching the Kanmon Bridge, he lost track of Vessel B.

About 0642.14 hrs

Sighting the lights of Vessel B about 50 m off on his port bow, he stopped the main engine and put the helm 70° to starboard.

About 0642.57 hrs

When his speed had dropped to 5.8 knots, he observed house lights and put the rudder 70° to port.

About 0643.23 hrs

She went aground on the west side of Moji Saki at a speed of 4.1 knots.

Principal factors

[Weather and sea conditions]

The weather at the material time was foggy, with visibility reduced to about 200 m, and the tidal stream flowing westward at a speed of about 6 knots. The time of sunrise on that day was 0710 hours.

Safety management manual established by the operator of Vessel A

In the event of a visibility reduced to 1,000 m or less, the master shall:

- ◆ reduce his vessel speed to a safe one appropriate to the situation; and
- ◆ take measures, as necessary, such as taking all way off, anchoring outside buoyed channels, or changing the sailing route.

He did not slacken his vessel speed.

He was in a hurry because of a large delay in port entry.

He did not take such measures as anchoring outside the passage, waiting for the situation to improve.

He believed that he might take a sheer because of the head current.

[Situation of the scene of the accident]

It is the narrowest part of Kanmon Kaikyo, with a navigable width of about 500 m. Over the area the Kanmon Bridge spans, with a height of about 62 to 63 m above the water.

*Movement of Vessel B

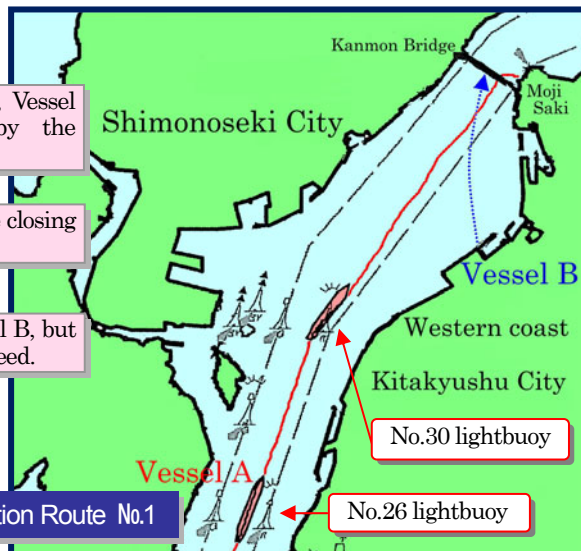
The master of Vessel B (a tugboat of 181 tons) states:

- ◆ She left the western coast of Moji-ku at about 0630 hours.
- ◆ Observing, by radar, Vessel A sailing northeastward in the vicinity of No.30 lightbuoy, He sailed toward the center of the right half of the Kanmon Bridge at a speed of about 5 knots.
- ◆ Just before reaching the Kanmon Bridge, his view was completely blocked by the fog. He slowed down to about 4 knots and headed for the center of the Kanmon Bridge by steering to the north in order to give more sea room on the starboard side for Vessel A, which was closing from astern.
- ◆ In the vicinity of the Kanmon Bridge when Vessel A had closed to a distance of about 50 m, she turned to starboard, suddenly, and he continued sailing as before.

On the radar screen, Vessel B was obscured by the Kanmon Bridge.

She was sailing while closing to Vessel B.

He lost track of Vessel B, but did not slacken his speed.



Estimated Navigation Route No.1

Estimated Navigation Route No.2



(Reference) Example of fog near the Kanmon Bridge



With a view to preventing recurrence

It is considered probable that this accident occurred, in the Kanmon Passage in a restricted visibility condition because of thick fog, as follows: While sailing northeastward and, at the same time, closing to Vessel B from behind, Vessel A lost track of Vessel B on the radar screen when her radar image was covered by that of the Kanmon Bridge; whereupon Vessel A did not slacken her speed; as a result, she drew closer and at the moment when lights of Vessel B were sighted, the latter was at a distance of about 50 m off on the port bow of Vessel A; and, in order to avoid collision, Vessel A turned to starboard.

The JTSB has conducted the following analysis with a view to preventing a recurrence of a similar accident.

Analysis for the prevention of a recurrence of a similar accident

It is considered probable that: As visibility had dropped to below 1,000 m, Vessel A should have taken shelter at an anchorage in a safe area or other means, by complying with the relevant safety management manual; although, after having observed Vessel B on the radar screen, she continued sailing at such a speed as would bring her closer to the other, she should have slackened her speed to a safe one.

- ◆ Important points for safe navigation in Hayatomo Seto are shown on Page 15.
- ◆ Important points for safe navigation in restricted visibility are shown on Page 17.

The investigation report of this accident is publicized on the website of the JTSB (issued on Feb. 26, 2010).

http://www.mlit.go.jp/jtsb/ship/report/MA2010-2-17_2008mj0081.pdf (Japanese version only)