

Investigated accident case 2

Collision between two cargo ships, both southbound, in restricted visibility because of thick fog, in the vicinity of the northwestern end of the Kanmon Passage No. 2

Outline: Cargo Ship A was proceeding toward Shimonoseki Section, Kanmon Port, from Busan, the Republic of Korea; Cargo Ship B was sailing to Nagoya from Gwangyang Port, the Republic of Korea; on the other hand, Vessel C was proceeding northward through the Kanmon Passage No. 2, in order to enter the Anse Passage. At around 0708 hours on May 27, 2008, Vessels A and B collided with each other at the northwestern end of the Kanmon Passage No. 2. As a result of the collision, Vessel A sustained damage in the bow section with Vessel B suffering damage in the port bow section below the water line. However, there were no fatalities, or even injuries, on board either vessel.

Events leading to the accident

Principal factors

Vessel A (cargo ship)

Gross tonnage : 2,745 tons
 $L \times B \times D$: 90.81 m \times 15.30 m \times 7.50 m
 Flag state : The Republic of Korea
 Crew members, etc : Master A (of the Republic of Korea) and 13 crew members
 Load condition : Containers

Vessel B (cargo ship)

Gross tonnage : 2,498 tons
 $L \times B \times D$: 94.00 m \times 14.00 m \times 7.00 m
 Flag state : The Republic of Korea
 Crew members, etc : Master B (of the Republic of Korea) and 12 crew members
 Load condition : Steel coils

Vessel C (cargo ship)

Gross tonnage : 5,174 tons
 $L \times B \times D$: 100.61 m \times 19.00 m \times 10.30 m
 Flag state : Japan
 Crew members, etc : Master C and 12 crew members
 Load condition : No cargo

About 0650 hrs

The prevailing foggy condition had reduced the visibility to between 500 and 600 m.

Master A sailed southbound in a fairway located to the west of Mutsure Shima Island, toward the Kanmon Passage No. 2, posting the officer as his assistant and a sailor for manual steering.

She sailed at a speed over the ground of about 13.1 knots (full speed), without giving fog signals.

About 0655 hrs

Recognizing Vessel B, by radar, sailing in the same direction at a distance of about 1,100 m ahead, he communicated with the same vessel for the first time.

About 0650 hrs

The prevailing foggy condition had reduced the visibility to between 600 and 700 m.

Master B sailed southbound in a fairway located to the west of Mutsure Shima Island, toward the Kanmon Passage No. 2, posting the deck officer as his assistant and a sailor for manual steering.

While sounding fog signals, she sailed at a speed over the ground of about 11.3 knots.

About 0655 hrs

By communication from Vessel A, he learned that Vessel A was sailing in his direction about 1,100 m behind him.

About 0640 hrs

Posting two deck officers to the radar for keeping a lookout and for communication by VHF, and two sailors as a helmsman for manual steering and as a lookout, Master C left an anchorage east of Mutsure Shima Island for Anse Hakuchi, Kanmon Port.

He recognized, on the radar screen, Vessels A and B in waterways west of Mutsure Shima Island.

About 0650 hrs

She sailed southwestward through the Kanmon Passage, while sounding fog signals, at a speed over the ground of about 10.2 knots.

About 0656 hrs

She turned to starboard and entered the Kanmon Passage No. 2 at an approximate speed of 7.2 knots.

[Weather and sea conditions] Visibility had dropped to about 50 to 100 m because of thick fog at the material time.

About 0700 hrs

Vessel B had closed to a distance of about 850 m.

About 0701 hrs

He received information from Kanmon MARTIS to the effect that: The visibility was less than 1,000 m and, because of the presence of a vessel (Vessel C) intending to enter the Anse Passage, he should pay attention to the movement of that vessel.

About 0704 hrs

Vessel C turned to port toward the Anse Passage from the Kanmon Passage No. 2 and increased her speed. Vessel A, however, continued sailing without reducing her speed.

Master A was distracted by the scheduled berthing time coming soon.

About 0700 hrs

He confirmed, by radar, Vessel A sailing behind him.

About 0701 hrs

He was informed by Kanmon MARTIS of the visibility being less than 1,000 m. He was also advised to pay attention to Vessel C, which was sailing westward.

About 0700 hrs

She slowed down to about 4.8 knots.

About 0702 hrs

Reducing his speed to about 3.4 knots, he sailed northwestward along the Kanmon Passage No. 2, while monitoring the movement of Vessels A and B.

About 0704 hrs

He was advised from Kanmon MARTIS to suspend his entry into the Anse Passage for some time because of the presence of two southbound vessels (Vessels A and B).

Despite the receipt of advice to wait, he turned to port toward the Anse Passage and accelerated his speed to about 5.0 knots.

He considered that it was alright for him to enter the Anse Passage because he had already reported his intention to Vessels A and B via Kanmon MARTIS.

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About 0705 hrs

When she reduced her speed to about 12.1 knots, the distance to Vessel B had closed to about 550 m.

About 0705 hrs

She slowed down to about 9.9 knots.

Although Vessel A had closed to a distance of about 550 m from behind, he forgot her presence as he was distracted by the movement of Vessel C.

Faced with a potential encounter situation, at the entrance to the Anse Passage, with Vessel C, which had made a port turn, he received a request from Kanmon MARTIS to keep out of the way of Vessel C.

About 0706.30 hrs

After turning to port, slightly before reaching the north end of the Kanmon Passage No. 2, she ended up heading in the direction of Vessel A.

About 0706 hrs

In a situation to make an encounter with Vessels A and B at the entrance to the Anse Passage, he received a request from Kanmon MARTIS to continue making a port turn and reverse his heading.

After accepting the request from Kanmon MARTIS, he continued turning to keep out of the way of Vessels A and B.

About 0707 hrs

- Masters A and B received information from Kanmon MARTIS to the effect that Vessel C—which, after having turned to port, was to enter the Anse Passage, while speeding up—would take evasive action by reversing her heading.
- Vessel B was requested by Kanmon MARTIS to make a starboard turn.

Having received no reply from Vessel B to their request to make a starboard turn, Kanmon MARTIS informed her that Vessel C had made a port turn.

Having noticed that Vessel B had neared to a close range on his starboard side, he made a large turn to port.

She entered the Kanmon Passage No. 2.

Although he received information from Vessel A, following Kanmon MARTIS, to the effect that Vessel C was making a port turn, he did not make a starboard turn and continued sailing on the same course, without making a reply.

He noticed that Vessel A had closed to a short distance on his port quarter.



Damage (bow section) suffered by Vessel A



Damage (port side) suffered by Vessel B

About 0708 hrs

On a heading of about 132°, at a speed of about 11.8 knots, the bow of Vessel A collided with the port bow of Vessel B.

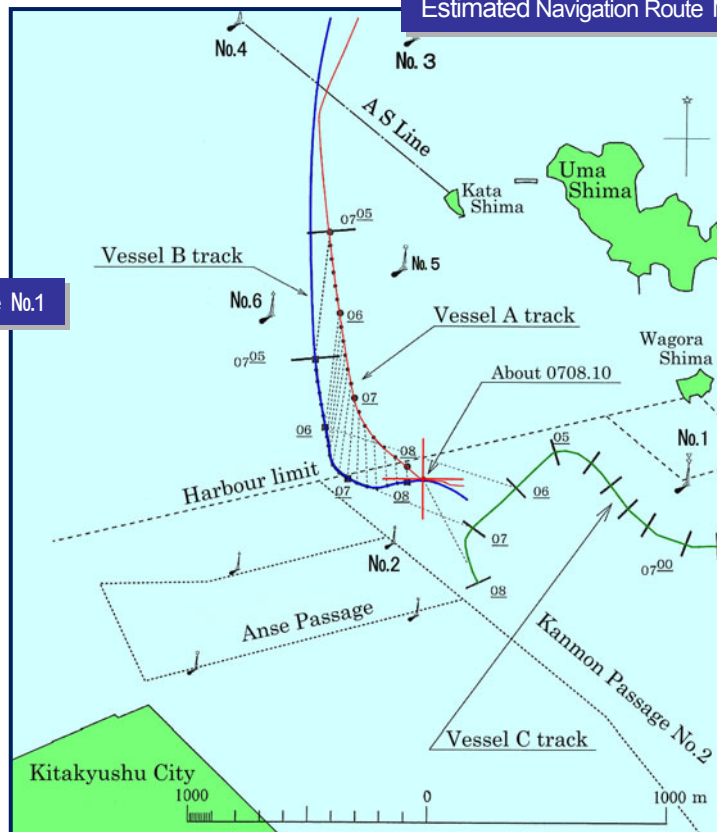
About 0708 hrs

With a heading of about 081°, at a speed of about 7.9 knots, she collided with Vessel A.



Location

Estimated Navigation Route No.2



Estimated Navigation Route No.1



Analysis on the accident occurrence

This accident occurred in the vicinity of the northwestern end of the Kanmon Passage No. 2, in restricted visibility due to thick fog. It is probable that, when Vessels A and B were proceeding southward, in tandem, in the waterway west of Mutsure Shima Island, and Vessel C was sailing northwestward through the Kanmon Passage No. 2, with the intention to enter the Anse Passage, each of them detected, by radar, the presence of the other two vessels, but did not maintain an appropriate radar lookout and continued sailing, without taking notice that they were developing a close-quarters situation, which resulted in the accident.

The investigation report conducts an analysis, as follows, about factors which contributed to the occurrence of the accident.

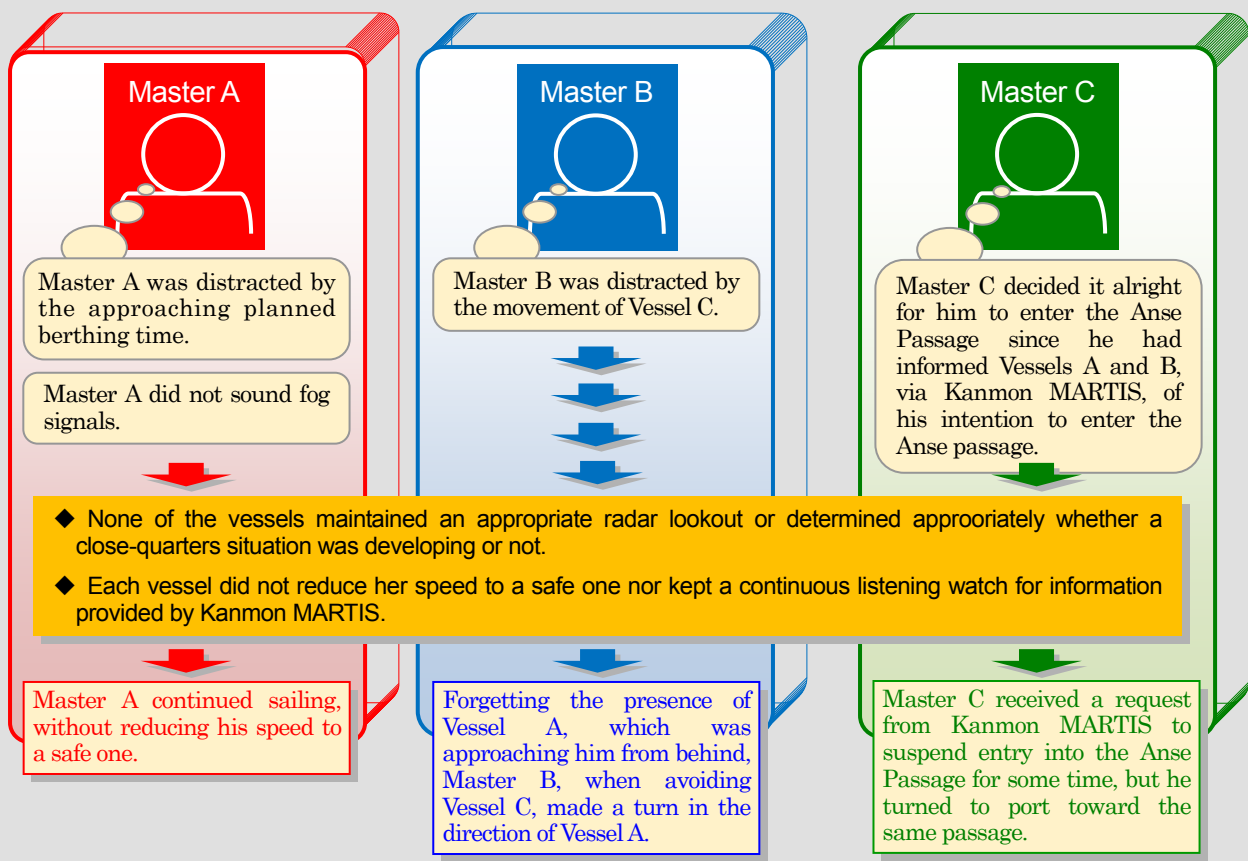
- ◆ Vessels A, B and C were sailing, in restricted visibility, in the vicinity of the Kanmon Passage and Kanmon Passage No. 2, with heavy vessel traffic.

Restricted
visibility
condition

According to the provisions of the Act on Preventing Collision at Sea:

- Each vessel should have determined if a close-quarters situation was developing and/or risk of collision existed. If so, they should have taken avoiding action in ample time.
- Each vessel should have sounded fog signals and proceeded at a safe speed.

- ◆ Kanmon MARTIS provided Vessels A, B and C with information about the movement of each vessel.



With a view to preventing recurrence

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

When sailing, in restricted visibility, in congested waters near the Kanmon Passage and the Kanmon Passage No. 2, where the navigable width is constrained, the vessels should have kept an appropriate radar lookout for the purpose of fully grasping the movement of other vessels around them, and, complied with the sailing rules specified in the Act on Preventing Collision at Sea, while taking full advantage of information provided by Kanmon MARTIS.

- ◆ 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 Jan. 29, 2010).

http://www.mlit.go.jp/jtsb/ship/report/MA2010-1-29_2008mj0006.pdf (Japanese version only)