



Report of investigation into the
collision between the Hong Kong
registered bulk carrier “*Inspiration
Lake*” and the Republic of Korea
registered fishing vessel “209
Juyoung” in position 36°05.48’N
130°01.40’E on 10 January 2017



The Hong Kong Special Administrative Region
Marine Department
Marine Accident Investigation Section

3 June 2019

Purpose of Investigation

The purpose of this investigation conducted by the Marine Accident Investigation and Shipping Security Policy Branch (MAISSPB) of Marine Department is to determine the circumstances and the causes of the incident with the aim of enhancing the safety of life at sea and avoiding similar incidents in future.

It is not intended to apportion blame or liability towards any particular organization or individual except so far as necessary to achieve the said purpose.

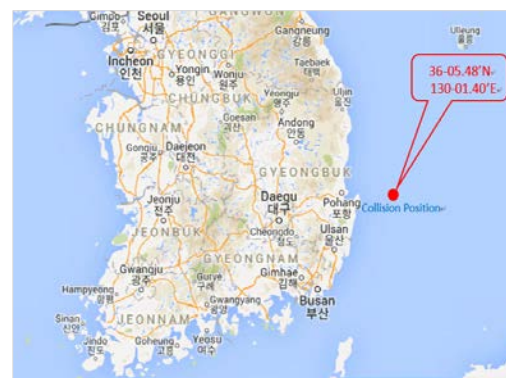
The MAISSPB has no involvement in any prosecution or disciplinary action that may be taken by the Marine Department resulting from this incident.

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Summary

The Hong Kong registered bulk carrier “*Inspiration Lake*”(the vessel) and the Republic of Korea registered fishing vessel “209 *Juyoung*” (the fishing vessel) collided in position 36°05.48’N 130°01.40’E at 1358 hours (UTC +9) on 10 January 2017.



After the collision, the fishing vessel capsized.

Three of the seven fishermen including the coxswain, chief engineer and a fisherman were rescued by the Korean Coast Guard (KCG) and the remaining fishermen were missing. However, the chief engineer and the fisherman died in hospital.

At the time of accident, the weather was partly cloudy with a visibility of about 10 nautical miles (n.ms). The wind was north-west with force 6 and sea condition was moderate.

The investigation revealed that prior to the collision, both the vessel and the fishing vessel were not aware of the risk of collision or even the presence of the other vessel. They did not comply with the requirement of Rule 5 (Look-out) of the International Regulations for Preventing Collisions at Sea 1972 (COLREGS), i.e. did not keep an effective visual lookout and failed to plot and check other vessels in the vicinity by utilizing radar to determine the risk of collision.

Furthermore, the investigation also revealed that the master failed to comply with the requirement of the Seafarers' Training, Certification and Watchkeeping (STCW) Code, as the officer in charge of the navigational watch should not be assigned to undertake any other duties which would interfere with the safe navigation of the ship. Being the sole lookout person on the bridge, the second officer carried out the master's assignment to calculate the distances for the coming voyages and violated the STCW Code's requirement.

1. Description of the vessels

1.1 *The vessel (Figure 1)*

Ship Name	: “ <i>Inspiration Lake</i> ”
Flag	: Hong Kong, China
Port of registry	: Hong Kong
IMO number	: 9727376
Type	: Bulk carrier
Year built, shipyard	: 2014, Shimanami Shipyard Co., Ltd.
Gross tonnage	: 23,269
Net tonnage	: 12,101
Summer deadweight	: 37,706 tonnes
Length overall	: 179.97 metres
Breadth	: 29.80 metres
Engine power, type	: 6820 kW, MAN B&W 6S46ME-B
Classification society	: Nippon Kaiji Kyokai (Class NK)
Registered owner	: Regina Bulkship S.A.
Management company	: Wealth Ocean Ship Management (Shanghai) Co., Ltd.



Figure 1 - *the vessel*

1.2 *The Fishing vessel (Figure 2)*

Ship Name	: “209 Juyoung”
Flag	: Republic of Korea
Port of registry	: Guryongpo, Pohang
Type	: Fishing vessel
Material of hull	: FRP (Fibre-reinforced plastic)
Gross tonnage	: 74
Registered dimensions	: 30.51 metres (Length) x 6.00 metres (Breadth) x 2.23 metres (Depth)
Maximum no. of persons allowed	: 10
Registered owner	: Young-Suk, Bae
Year built, shipyard	: 2005, Namhae, Republic of Korea
Main engine	: 1 x 800 BHP

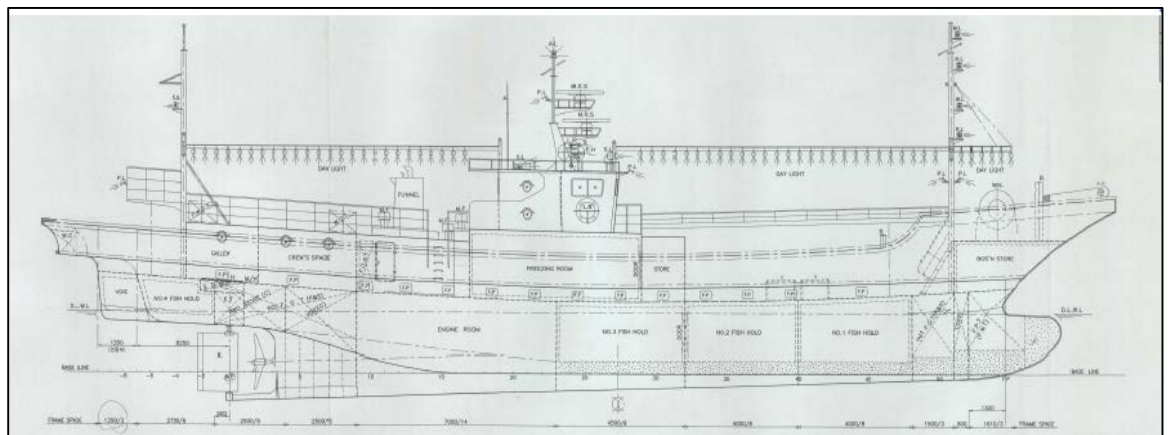


Figure 2 - *The fishing vessel*

2. Sources of evidence

- a) Information provided by the ship management company of *the vessel*.
- b) Information provided by the Korean Maritime Safety Tribunal (KMST).

3. Outline of events

(All times were local times UTC + 9 hours)

Account of *the vessel*

- 3.1 At 1130 hours on 8 January 2017, *the vessel* departed from Taicang, China in ballast condition to Nakhodka, Russia to take bunker. On board *the vessel*, there were 22 Chinese crew including the master.
- 3.2 *The vessel* was set on a course of 019° at 0945 hours on 10 January 2017 with a speed of about 12 knots on her planned track in the coastal sea eastern off the Republic of Korea. At 1145 hours, the second officer attended the bridge and took over the watch from the third officer. At 1205 hours, the duty able-bodied seaman (AB) was instructed by the chief officer to clean the cargo holds and he would be summoned to the bridge in case of emergency or necessity.
- 3.3 At 1252 hours, the master attended the bridge to send noon report. At 1310 hours, upon receipt of the charterer's voyage instructions for *the vessel* to load steel cargo at Tacoma, USA after bunkering at Nakhodka, Russia and to discharge the steel cargo at Phu My, Vietnam, the master instructed the second officer who was the only watchkeeping person on the bridge to calculate the distances between the above bunkering port, cargo loading port and subsequent discharging port.
- 3.4 At about 1310 hours, when *the vessel* was at position 35°56.3'N, 129°57.7'E on a course of 018° and at a speed of about 12 knots, the target of *the fishing vessel* was detected and appeared on the radar screen at a distance of about 9.78 n.ms and a bearing of 019.5°. However, the second officer failed to observe the target of *the fishing vessel* on the radar. At 1324 hours, the master left the bridge to distribute the voyage instructions to the chief engineer and chief officer for their follow-up actions.
- 3.5 At 1337 hours, the master returned to the bridge and was satisfied with the traffic condition of the surrounding sea. The second officer went to the chart space to calculate the distances as instructed by the master. According to the Voyage Data Recorder (VDR) information, the X-band radar was in operation as well as the Automatic Identity System (AIS) and Very High Frequency (VHF) radios.

3.6 At about 1358 hours, a slight vibration was felt by the master, chief engineer and second officer on the bridge. The second officer observed a fishing vessel capsized and the fishermen fell overboard. The following radar screens showed the positions of *the fishing vessel* relative to *the vessel* at 1310 hours, 1330 hours and 1350 hours (Figures 3, 4 and 5) before the collision happened at 1358 hours.

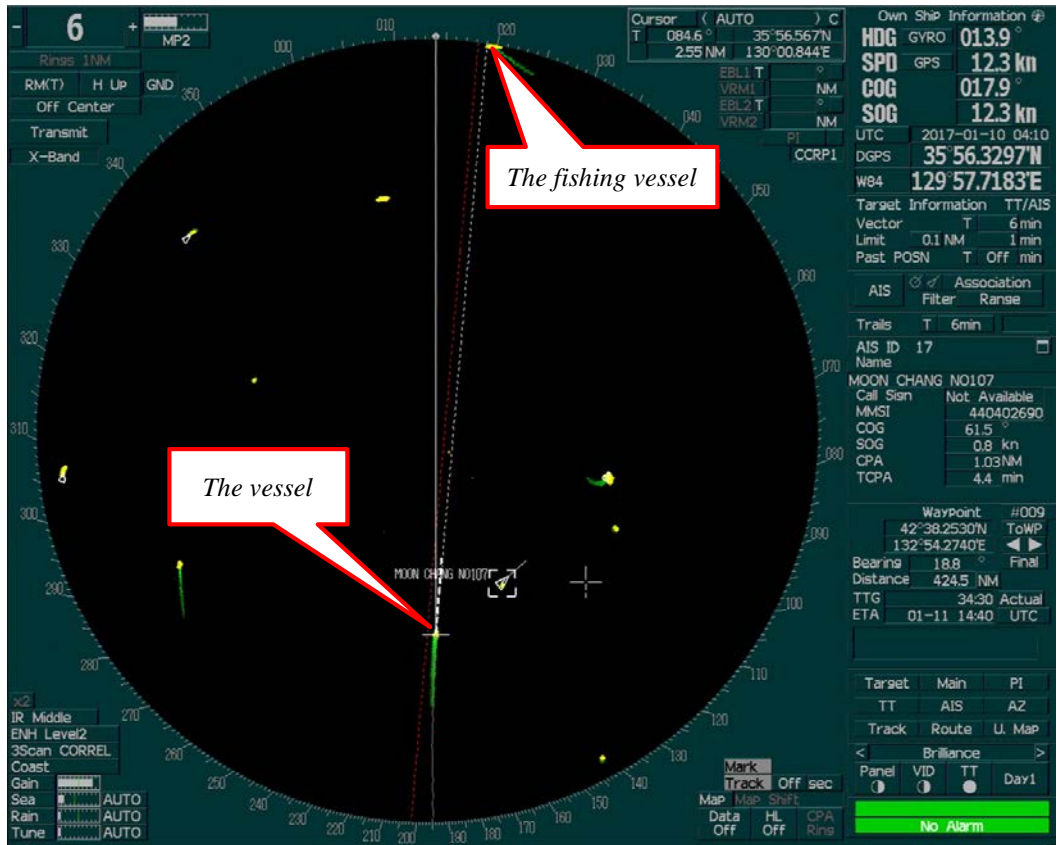


Figure 3 - The Radar screen at 1310 hours when *the fishing vessel* was first detected and displayed on the radar

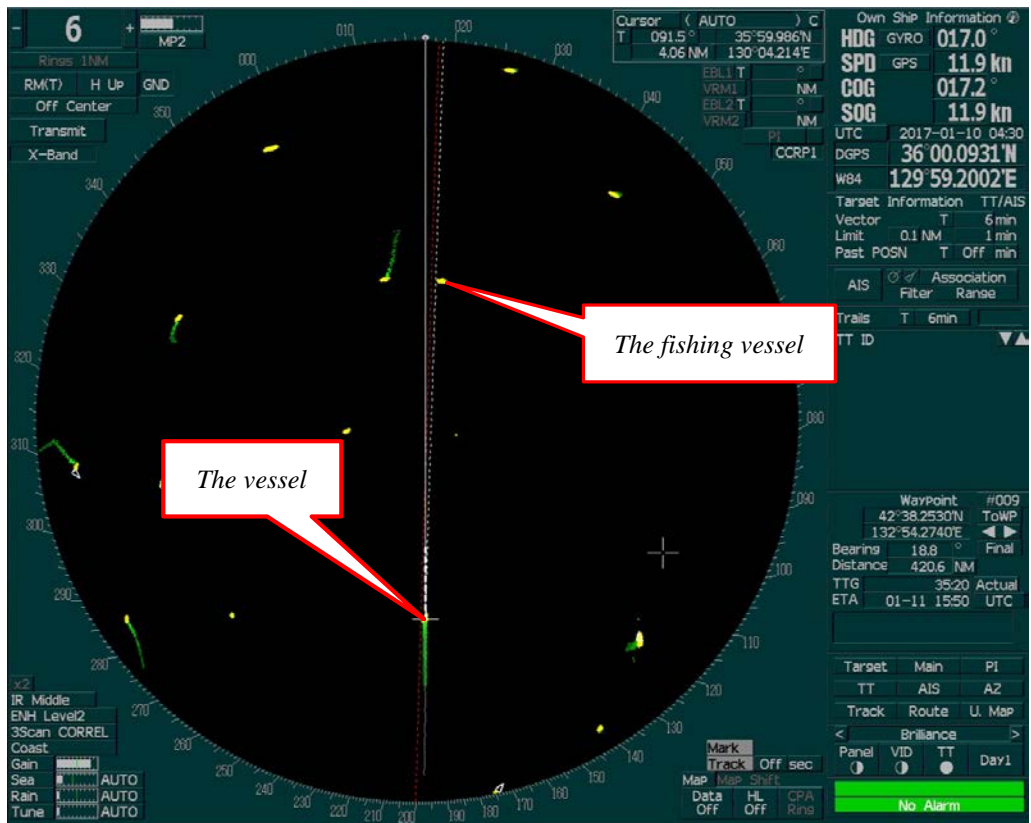


Figure 4 - The Radar screen at 1330 hours

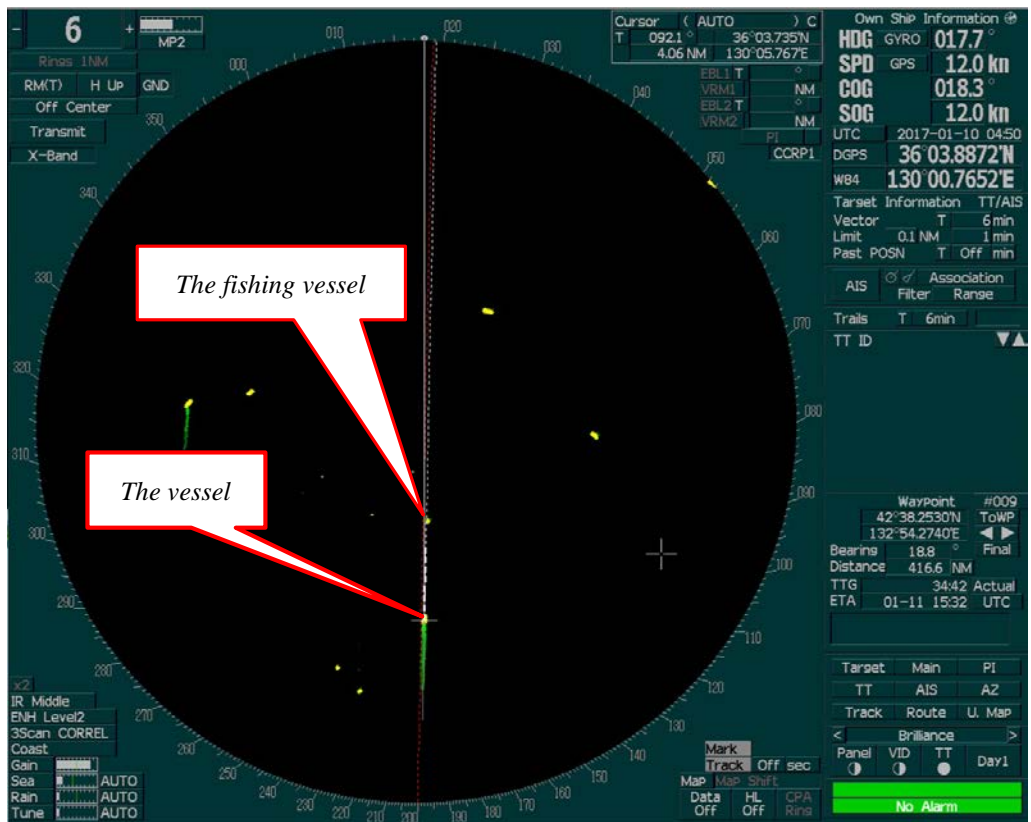


Figure 5 - The Radar screen at 1350 hours

- 3.7 Based on the radar records, the positions of *the vessel* and its relative bearing and distance to *the fishing vessel* were listed in Table 1 below.

Time(hours)	<i>The vessel's</i> position	to <i>the fishing vessel</i>	
		Bearing (°)	Distance (n.m)
1310	35°56.3'N 129°57.7'E	19.5	9.78
1320	35°57.9'N 129°58.4'E	19.5	8.1
1330	36°00.0'N 129°59.2'E	19.5	5.7
1340	36°01.9'N 129°59.9'E	19.5	3.7
1345	36°02.9'N 130°00.3'E	19.5	2.7
1350	36°03.8'N 130°00.7'E	19.5	1.7
1355	36°04.8'N 130°01.1'E	19.5	0.7
1358	36°05.4'N 130°01.4'E	The radar echo merged the ship's radar center.	

Table 1 - The positions of *the vessel* and its relative bearing and distance to *the fishing vessel*

Account of *the fishing vessel*

- 3.8 *The fishing vessel* departed to eastern coastal sea of the Republic of Korea for fishing on 25 December 2017 with seven fishermen including the coxswain on board. Five of them were Koreans. The other two were Chinese and Vietnamese respectively.
- 3.9 At about 0730 hours on 10 January 2017, *the fishing vessel* completed the fishing operation at a fishing ground. At 0900 hours, she left the area and arrived at another fishing ground at 1300 hours.
- 3.10 At 1330 hours, four fishermen went to their rooms to take a rest. Normally, the fishermen would work at night and take rest during the day. The coxswain was in the wheelhouse talking to the coxswain of another fishing vessel by means of VHF radio communications, while the chief engineer and a Vietnamese fisherman were on deck.
- 3.11 Prior to the collision, the coxswain was not aware of the presence of *the vessel*. When the collision occurred, he managed to inform the coxswain of another fishing vessel by VHF radio communications that his vessel was sinking. Although *the fishing vessel* was equipped with a radar and an ARPA (automatic radar plotting aid) radar, the ARPA

radar was not in operation at the time of collision. The AIS installed on board *the fishing vessel* was out of order.

Search and Rescue operation (SAR)

- 3.12 After the collision, the master of *the vessel* ordered to stop the engine immediately and turned around to search in order to rescue the fishermen in the water. At the same time, *the vessel* informed the KCG and Korean Navy by VHF radio communication of the collision and assistance was summoned from the above government agencies to initiate the search and rescue (SAR). The master had attempted to launch the starboard lifeboat to rescue the fishermen in the water but failed due to heavy swell. At around 1430 hours, one KCG launch arrived at scene and commenced the SAR. Around 1445 hours, three fishermen were rescued by the KCG launch. However, the other four fishermen were still missing.
- 3.13 At 2030 hours, *the vessel* was instructed by KCG to proceed to the outer anchorage of Pohang for further investigation. *The vessel* dropped anchor at the above anchorage at 0015 hours on 11 January 2017.

4. Analysis

Manning and working experience

The vessel

- 4.1 *The vessel* was manned by 22 Chinese crew including the master. The master, officers and crew held valid certificates of competency and valid certificates of proficiency corresponding to their respective positions. The manning of *the vessel* met the requirement of the Minimum Safe Manning Certificate which required a total complement of 16 crew including a master.
- 4.2 The master of *the vessel* had served as a master for more than four years and served the ship management company for about five months. He joined *the vessel* on 15 August 2016.
- 4.3 The second officer had served as a second officer for the ship management company for more than two years. He joined *the vessel* on 15 August 2016.
- 4.4 The AB held a valid certificate of proficiency as a rating forming part of a navigational watch on ships of or over 500 gross tonnage. He had served as an AB since 25 January 2016 and served the ship management company for more than two years. He joined *the vessel* on 16 October 2016.
- 4.5 The experience of the master and other crew of the bridge team were considered sufficient.

The fishing vessel

- 4.6 No information of *the fishing vessel* was available with respect to the manning requirement and personal qualification.

Certificates of *the vessel* and *the fishing vessel*

- 4.7 The statutory trading certificates of *the vessel* were valid and in order. No information was available about the certificates of *the fishing vessel*.

Weather, visibility and tidal stream conditions

- 4.8 The weather was partly cloudy with a northwesterly wind force 6. The sea was rough and the visibility was about 10 n.ms. The weather conditions were not considered to have any bearing on the occurrence of the accident.

Damage conditions of both vessels

- 4.9 External and internal inspections of *the vessel* were conducted by Class NK and P & I (Protection and Indemnity) club surveyors at Pohang Anchorage. Slight dent with a size of approximately 1 metre x 1 metre and paint scratches over an area about 2 metres x 1.5 metres were found at the port side shell plating of the bulbous bow. Paint scratches were also found on the starboard bow plating (Figure 6). The internal structure of the fore peak tank was intact. The seaworthiness of *the vessel* had not been affected. No repair was needed according to Class NK's survey report.

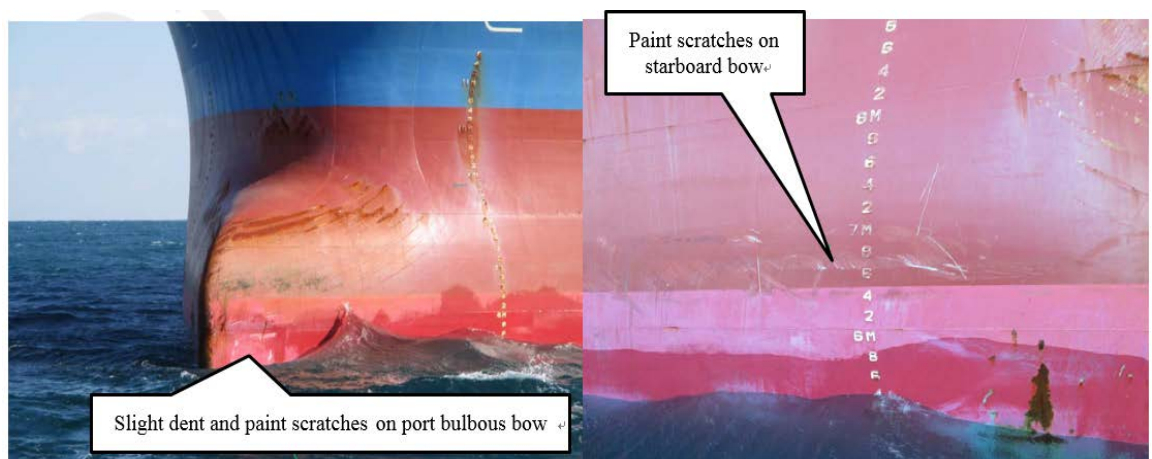


Figure 6 – Damage conditions of *the vessel*

- 4.10 After the collision, *the fishing vessel* turned upside down and was floating on the sea surface. As struck by *the vessel*, the port side hull of *the fishing vessel* was holed (Figure 7).

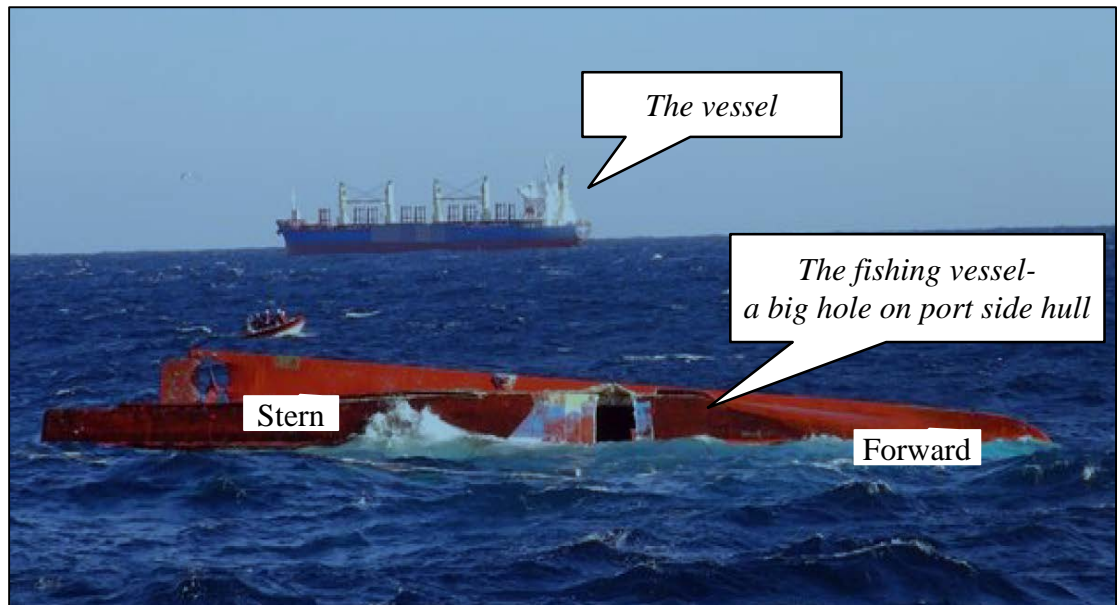


Figure 7 - *The fishing vessel* floating upside down on the sea surface

Actions taken by *the vessel*

- 4.11 After the second officer took over the watchkeeping duty from the third officer at 1145 hours on 10 January 2017, *the vessel* maintained the course of 17° with a speed of about 12 knots. At 1337 hours, the second officer was satisfied with the traffic conditions of the surrounding sea and went to the chart space to calculate the coming voyage distances between bunkering port, loading port and discharging port as instructed by the master. Although the target of *the fishing vessel* first appeared on the radar screen at about 1310 hours (i.e. about 48 minutes from the time of collision) and at a distance of 9.78 n.ms from *the vessel*, the second officer never took note of *the fishing vessel*. The radar had a collision risk alarm function but it was turned off. In this connection, he failed to maintain a proper lookout by sight and hearing as well as by all available means as required by Rule 5 (Look-out) of the COLREGS.
- 4.12 Further to the above, the master was aware that the second officer was the sole lookout person on the bridge after the duty AB was assigned by the chief officer to carry out cargo hold cleaning job at 1205 hours. However, the master still instructed the second officer to calculate the distances for coming voyages between the bunkering port, loading port and discharging port without making any arrangement to release the second officer from watchkeeping duty. The master's action was not in compliance with the STCW Code, which requires that the officer in charge of a navigational watch shall not

be assigned or undertake any duties which would interfere with the safe navigation of the ship, as well as the company requirements of “the guidance to bridge procedures”.

Actions taken by *the fishing vessel*

- 4.13 *The fishing vessel* was drifting slowly at sea and was considered to be underway. Although the coxswain of *the fishing vessel* was in the wheelhouse at the time of collision, he was talking to the coxswain of another fishing vessel via VHF radio communication. As a result, he did not maintain proper lookout and was not aware of the presence of *the vessel* before the collision. Moreover, he did not switch on the ARPA radar, which would give collision risk alarm for approaching vessels. In this regard, the coxswain of the fishing vessel failed to comply with Rule 5 (Look-out) of the COLREGS by not keeping a proper lookout by sight and hearing as well as by all available means e.g. ARPA radar to make a full appraisal of the situation and of the risk of collision.

Fatigue, alcohol and drugs abuse

- 4.14 At about 1800 hours on 10 January 2017, three KCG officers boarded *the vessel* and conducted alcohol tests on all crew. The outcome of the alcohol tests was negative. No information was available as to whether the coxswain and the fishermen had been affected by alcohol and drugs at the time of the accident.
- 4.15 The record of “ship board working arrangement” and the declaration “record of hours of rest of seafarers” were checked. The master, second officer and the AB rested for about 13 to 16 hours every day after departure from Taicang, China on 8 January 2017 and before the collision. It appeared that they had not suffered from fatigue. For the coxswain and the fishermen of *the fishing vessel*, no information was available as to whether they had suffered from fatigue.

5. Conclusions

- 5.1 A collision occurred between *the vessel* and *the fishing vessel* at position 36°05.48'N 130°01.40'E in the coastal sea eastern of the Republic of Korea at 1358 hours on 10 January 2017. *The fishing vessel* capsized and four out of the seven fishermen were missing. The coxswain and other two fishermen were rescued from the sea, but only the coxswain survived.
- 5.2 The investigation revealed that the main contributory factors of the accident were as follows:
- a) prior to the collision, both *the vessel* and *the fishing vessel* were not aware of the risk of collision or even the presence of the other vessel. They did not comply with the requirement of Rule 5 (Look-out) of COLREGS, i.e. did not keep an effective visual lookout and failed to plot and check other vessels in the vicinity by utilizing radar to determine the risk of collision; and
 - b) the master failed to comply with the requirement of the STCW Code, which requires that the officer in charge of the navigational watch should not be assigned to undertake any other duties which would interfere with the safe navigation of the ship. Being the sole lookout person on the bridge, the second officer carried out the master's assignment to calculate the distances for the coming voyages and violated the STCW Code's requirement.

6. Recommendations

- 6.1 A copy of this report should be sent to the master and the ship management company of *the vessel*, advising them of the findings of this incident. The company should issue a circular to inform all their masters, officers and crew on the findings of this accident investigation, and instruct them to comply with the Rules of COLREGS and Section A/VIII-2 of STCW Code at all times, particularly the requirements of maintaining adequate composition of navigational watch on bridge and proper lookout all the time.
- 6.2 A copy of this report should also be sent to the KMST, as well as the coxswain and the shipowner of *the fishing vessel* for their information. The coxswain of *the fishing vessel* should comply with the Rules of COLREGS all the time, particularly for the requirements of maintaining proper lookout at all times.
- 6.3 A Hong Kong Merchant Shipping Information Notice is to be issued to promulgate the lessons learnt from the accident.

7. Submission

7.1 The draft report was sent to the following parties for their comments:

- a) the ship management company and master of *the vessel* through the ship management company;
- b) the KMST;
- c) the coxswain and the shipowner of *the fishing vessel* through the KMST; and
- d) the Ship Safety Branch of the Marine Department.

7.2 The ship management company and master of *the vessel* accepted the report without comment. No comments were received from the remaining parties during the consultation period.