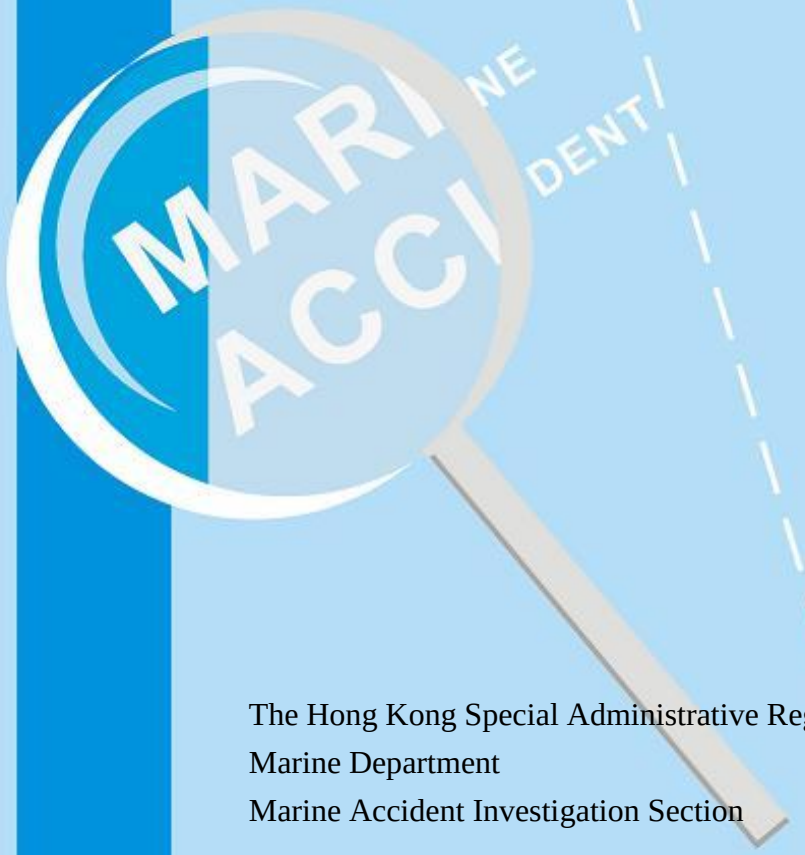
Report of investigation into the collision between the Cyprus registered container vessel "*RBD Jutlandia*" and the Hong Kong licensed fishing vessel "CM63963A" in position 21°26.7'N 113°06.8'E on 25 December 2014



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

06 November 2015

Purpose of Investigation

This incident is investigated in accordance with the Code of the International Standards and Recommended Practices for a Safety Investigation into a Marine Casualty or Marine Incident (the Casualty Investigation Code) adopted by IMO Resolution MSC 255(84).

The purpose of this investigation conducted by the Marine Accident Investigation and Shipping Security Policy Branch (MAISSPB) of Marine Department, in pursuant to the Merchant Shipping Ordinance Cap. 281, the Shipping and Port Control Ordinance (Cap. 313), the Merchant Shipping (Safety) Ordinance (Cap. 369), or the Merchant Shipping (Local Vessels) Ordinance (Cap. 548), as appropriate, is to determine the circumstances and the causes of the incident with the aim of improving the safety of life at sea and avoiding similar incident in future.

The conclusions drawn in this report aim to identify the different factors contributing to the incident. They are not intended to apportion blame or liability to wards 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.

Table of Contents

Page

1. Summary

1.1 At about 1900 on 25 December 2014, the Hong Kong locally licensed fishing vessel "CM63963A" *(the fishing vessel)* commenced returning to Taishan, China after 2 days of fishing operation in the South China Sea, at about 30 nm west of Taishan, China.

1.2 On the afternoon of 25 December 2014, the Cyprus registered cargo vessel "RBD Jutlandia" (*the cargo vessel*) departed from Hong Kong and bounded for Haiphong, Vietnam.

1.3 At about 2117 on 25 December 2014, *the fishing vessel* collided with *the cargo vessel*. However, the navigator of *the cargo vessel* did not notice the collision and continued her voyage without stoppage or slowdown. *The fishing vessel* was flooded with sea water after the collision and eventually sank.

1.4 The coxswain and other six persons on board abandoned *the fishing vessel*. They jumped into the sea, either wearing lifejackets or holding onto lifebuoys. Six persons including the coxswain were rescued by other fishing vessels in the vicinity. However, one of them was found missing. No significant oil pollution was reported.

1.5 The investigation into the accident revealed that the contributory factors leading to the accident were as follows:

- Both the navigators of *the cargo vessel* and *the fishing vessel* did not maintain a proper look-out during sailing. They were not aware that their vessels were approaching each other on convergent courses with a risk of collision existing (COLREG Rule 5).

- The navigator of *the cargo vessel* failed to maintain a proper navigational watch. He did not notice the collision even after it had occurred and failed to rescue the crew members of *the fishing vessel* in distress immediately.

2. Description of the Vessels

2.1 The cargo vessel "RBD Jutlandia"

2.1.1 Ship Information

Nationality	:	Cyprus
Port of Registry	:	Limmasol
IMO No.	:	9498690
Call Sign	:	5BMH2
Ship Type	:	Other Cargo Ship (Container ship)
Year of Built (Delivery)	:	26 May 2009
Gross Tonnage	:	7464
Net Tonnage	:	3165
Deadweight	:	8165.9 mt
Length (Overall & LPP)	:	LOA: 129.65 m / LPP: 120.34 m
Breadth (moulded)	:	20.60 m
Depth (moulded)	:	10.80 m
Summer Draft	:	7.40 m
Main Engine & Power	:	Caterpillar, Diesel Engine, 8M43C, 7200 kW
Classification Society	:	DNV-GL
Management Company	:	Reederei Hinsch GmbH & Co, KG
Minimum safe manning	:	9
Persons onboard	:	11

Fig.1 - *"RBD Jutlandia"* berthed in Hong Kong 30 December 2014.

2.2 Hong Kong locally licensed fishing vessel "CM63963A"

2.2.1 Ship Information

Name of vessel	:	CHAN TO KAN
Certificate of Ownership	:	CM63963A
Safe navigation limit	:	Waters of Hong Kong
Other licensed:		
Name in Guangdong	:	Zhuwan 3578 (珠灣 3578)
Port in Guangdong	:	Wanzai, Zhuhai(灣仔,珠海)
Operation area	:	South China Sea
Class / type of vessel	:	Class III, Category B, Fishing vessel (trawler)
Operation mode	:	trawling in pair
Length	:	LOA: 31.80 m / LPP: 30.00 m
Extreme Breadth	:	7.30 m
Gross Tonnage	:	227.06
Net Tonnage	:	158.94
Minimum safe manning	:	2
Persons permitted to carry	:	8
Persons onboard	:	7
Main Engines & Power	:	Cummins, Diesel Engine, 3 sets, 693.78 kW
Type of propulsion	:	Propeller, 3 sets
Date of first licensed	:	19 April 1990
Material of hull	:	Wood

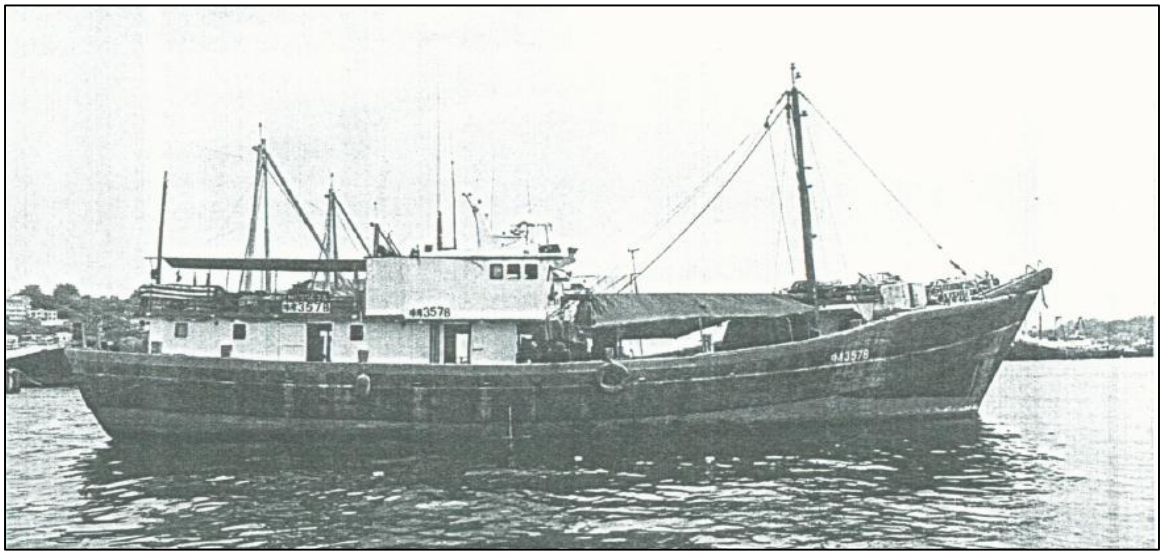


Fig.2 – The fishing vessel *"CHAN TO KAN" (CM63963A)*

Fig.3 - Similar fishing vessels (Trawlers) under two-in-trawling operation

3. Sources of Evidence

3.1 The statements of the master and crew of the cargo vessel “RBD Jutlandia”;

3.2 The statements of the coxswain and crew of fishing vessel (CM63963A);

3.3 The statements of the fishing men who attended the search and rescue operation;

3.4 The vessels traffic information provided by Zhuhai Vessel Traffic Service Centre.

4. Outline of Events

All the times are local (UTC+8) if it is not otherwise specified.

Account of fishing vessel "CM63963A" (The fishing vessel)

4.1 At about 1700 on 23 December 2014, *the fishing vessel* departed Taishan, Guangdong with her partner trawler "Zhuxiang 1664 (珠香 1664)" to the waters at the west of Taishan, China for fishing . There were a total of seven persons on board *the fishing vessel* including the coxswain. They conducted a two-in-trawling operation at the fishing ground in position 21°24'N 113°40'E on the morning of 24 December 2014.

4.2 At about 1900 on 25 December 2014, *the fishing vessel* completed the fishing operation. In view of strong wind and heavy sea prevailing, *the fishing vessel* returned to Taishan, sailing on a course of about 280° to 290° and at a speed of about 6 knots. The radar and AIS of the fishing vessel were in operation and all navigation lights and deck lights were on. The coxswain was conning *the fishing vessel*, while the other six persons on board were sleeping in the cabins.

4.3 At about 2040, *the fishing vessel* was in position 21°25.1'N 113°11.2'E, maintaining a course of about 280° and steaming at a speed of 6 knots. A cargo vessel ("RBD Jutlandia") was on the northeast of the fishing vessel in position 21°30.9'N 113°14.1'E and sailing on a course of about 254° and at a speed of 13 knots. The distance between the two vessels was about 3.8 Nm (Refer to P.10 Fig.4- the Zhuhai VTS radar screen at 2040 hours).

4.4 At about 2117, the fishing vessel's starboard hull collided with the cargo vessel's port forward. Water flooded into *the fishing vessel* through the starboard damaged hull. However, *the cargo vessel* went away without stoppage or slowdown of her speed. The coxswain and his crew on board *the fishing vessel* could not see clearly the cargo vessel itself, but only a big shadow.

4.5 All the lights of *the fishing vessel* went out soon after the collision due to the failure of power supply. *The fishing vessel* listed to port after the collision and sank quickly as a result of flooding of seawater. The coxswain called up all persons and asked them to wear lifejackets. He also called "Zhuxiang (珠香) 1664" for help with a mobile phone. The coxswain announced to abandon ship and all of the persons jumped into the water. Five of them wore lifejackets, and the remaining two only held lifebuoys.

4.6 The fishing vessel maintained her AIS position at 21°26.65'N 113°6.85'E without change after the collision. The last AIS transmission was received at 2201. Therefore, *the fishing vessel* sank at about 2201.

4.7 At about 2300, six persons including the coxswain were rescued by other fishing vessels in the vicinity. However, one of the persons was missing. No significant oil pollution was reported.

Account of cargo vessel "RBD Jutlandia" ("*the cargo vessel*")

4.8 At 1406 on 25 December 2014, *the cargo vessel* departed Hong Kong and bounded for Haiphong, Vietnam.

4.9 At 2000 on the same day, *the cargo vessel* was in position 21°36.2'N 113°25.2'E. The master took over the watch on bridge from the chief officer. An Ordinary Seaman (*OS*) was on support duty to keep looking-out on bridge.

4.10 As per the record of the Zhuhai VTS system, at about 2032 on the same day, *the cargo vessel* was in the position 21°31.6'N 113°15.8'E, at a speed of 12.7 knots bounding at a course of 238°. At about 2036 to 2046, the Zhuhai VTS recorded that *the cargo vessel* had sailed past a group of fishing vessels. *The cargo vessel* was maneuvered by an alternation of course in the range of 237° to 254° to stay clear of the fishing vessels. At 2048, the cargo vessel steered back on a course of about 238°, and was maintained at this course. (Refer to P.10 Fig.4- the Zhuhai VTS radar screen at 2040 hours, the Zhuhai VTS recorded that *the cargo vessel* had sailed past a group of fishing vessels.)

4.11 At about 2100, *the cargo vessel* was in the position 21°28.7'N 113°10.1'E, on a course of 238° and a speed of 12.8knots. The chief engineer came to the bridge and chatting with master who was on navigation watch. The *OS* was allowed to leave the bridge to join the Christmas party celebration in the saloon. At this moment, a fishing vessel was at the position 21°25.9'N 113°08.8'E, on a course of 287° and a speed of 6.4 knots. The distance and bearing to *the fishing vessel* were 3 nm and 202° respectively. No one on the bridge noticed any significant target of vessels forming a risk of collision by visual and radar look-out. (Refer to P.11 Fig.5- the Zhuhai VTS radar screen at 2100 hours, the two vessels were approaching to each other on convergent courses with a risk of collision.)

4.12 At about 2115, *the cargo vessel* was in position 21°27.0'N 113°07.3'E, proceeding at a speed of 12.6 knots and on a course of 239°. *The fishing vessel* was in position 21°26.6'N 113°07.1'E, at a speed of 7.7 knots on a

course of 297°. The bearing from the cargo vessel to the fishing vessel was 204°, and the distance was reduced to about 0.44 nm (817 m). But the master of *the cargo vessel* did not see *the fishing vessel*. Up to this moment, both vessels still had not taken any action to avoid collision. (Refer to P.12 Fig. 6 – the Zhuhai VTS radar screen at 2115, both vessels were closing under high risk of collision.)

4.13 At about 2117, *the cargo vessel* was in position 21°26.7'N 113°06.9'E, at a speed of 12.2 knots on a course of 235°. *The fishing vessel* was in position 21°26.7'N 113°06.8'E, at a speed of 6.7 knots on a course of 299°. The distance between both vessels was 108 m, and the bearing to *the fishing vessel* was 214°. Considering the crossing course and the length of both vessels (i.e. 129 m for *the cargo vessel*, the 31 m for *the fishing vessel*), the collision was about to be happened at this moment. (Refer to P.13 Fig.7- the Zhuhai VTS radar screen at 2117, both vessels overlapped on one point.)

Search and rescue operation

4.14 The collision of the vessels occurred at about 2117, but both the master and chief engineer on the bridge of *the cargo vessel* did not notice the collision. They did not hear any sound or feel any vibration of *the cargo vessel*. *The cargo vessel* continued her voyage to the next port without stoppage. (Refer to P.14 Fig.8- the Zhuhai VTS radar screen at about 2120, *the cargo vessel* "*RBD Jutlandia*" maintained her course and speed no change after collision.)

4.15 After the collision, *the fishing vessel* was flooded by sea water entering through the damaged hull and started to sink. All seven persons on board abandoned *the fishing vessel*. They jumped into the sea either wearing lifejackets or carrying with them lifebuoys. A total of six persons including the coxswain were rescued by other fishing vessels in the vicinity, however, one was missing.

4.16 The coxswain "Zhuxiang 1664" received a call by cell phone for help from *the fishing vessel* a few minutes after the collision. The distance between them was about 3 to 4 nm. "Zhuxiang 1664" proceeded to the collision area immediately.

4.17 The coxswain of the "Zhuxiang1664" stated that they had arrived at the area about half-an-hour after and rendered searching operation immediately upon arrival. In the area, the coxswain of "Zhuxiang 1664" sensed a strong smell of diesel oil and spotted debris floating on sea. He also found a big vessel at

a distance of about 2 to 3 nm on her starboard side with green side light and 2 white mast lights. He called other fishing vessels to render searching in the secen.

4.18 The Zhuhai VTS radar recorded that two unnamed fishing vessels had arrived at the survivors pick up position at about 2158. One of them was "Zhuxiang 1664". (Refer to P.15 Fig.9– the VTS radar screen at about 2158, two unnamed vessels arrived on the site of survivors.) Three minutes later, *the fishing vessel* sank at a distance of about 1.8 nm away from that position and her signal then disappeared from the radar screen at 2201. (Refer to P.16 Fig.10- the VTS radar screen at about 2202, no AIS signal of the fishing vessel was received and displayed on radar screen anymore.)

4.19 A fishing carrier "Zhuxiang 1268" was at a distance of about 11 nm away from the collision area immediately proceeded to render help after having received the relayed distress call from other fishing vessels at about 2130. At about 2230, the "Zhuxiang 1268" arrived at the area. After half an hour of search, the crew of "Zhuxiang 1268" picked up 4 survivors from the sea at position about 21°26'N 113°05'E about 1.8 nm from the abandon ship position. A total of two survivors were also picked up by another fishing vessel in the vicinity. The remaining person of the *fishing vessel* was confirmed missing after several days of search without any finding.

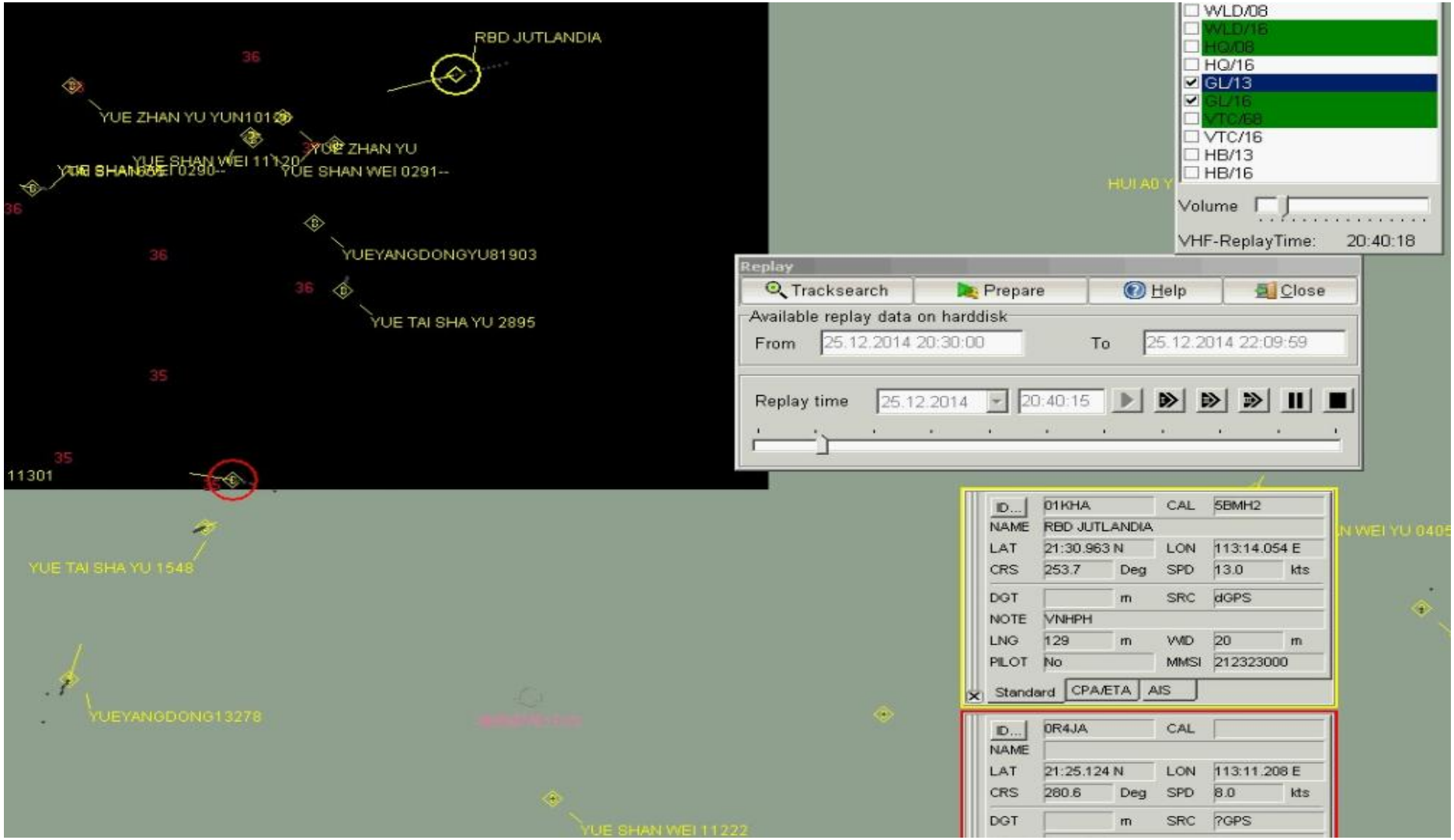


Fig.4- the Zhuhai VTS radar screen at 2040 hours.

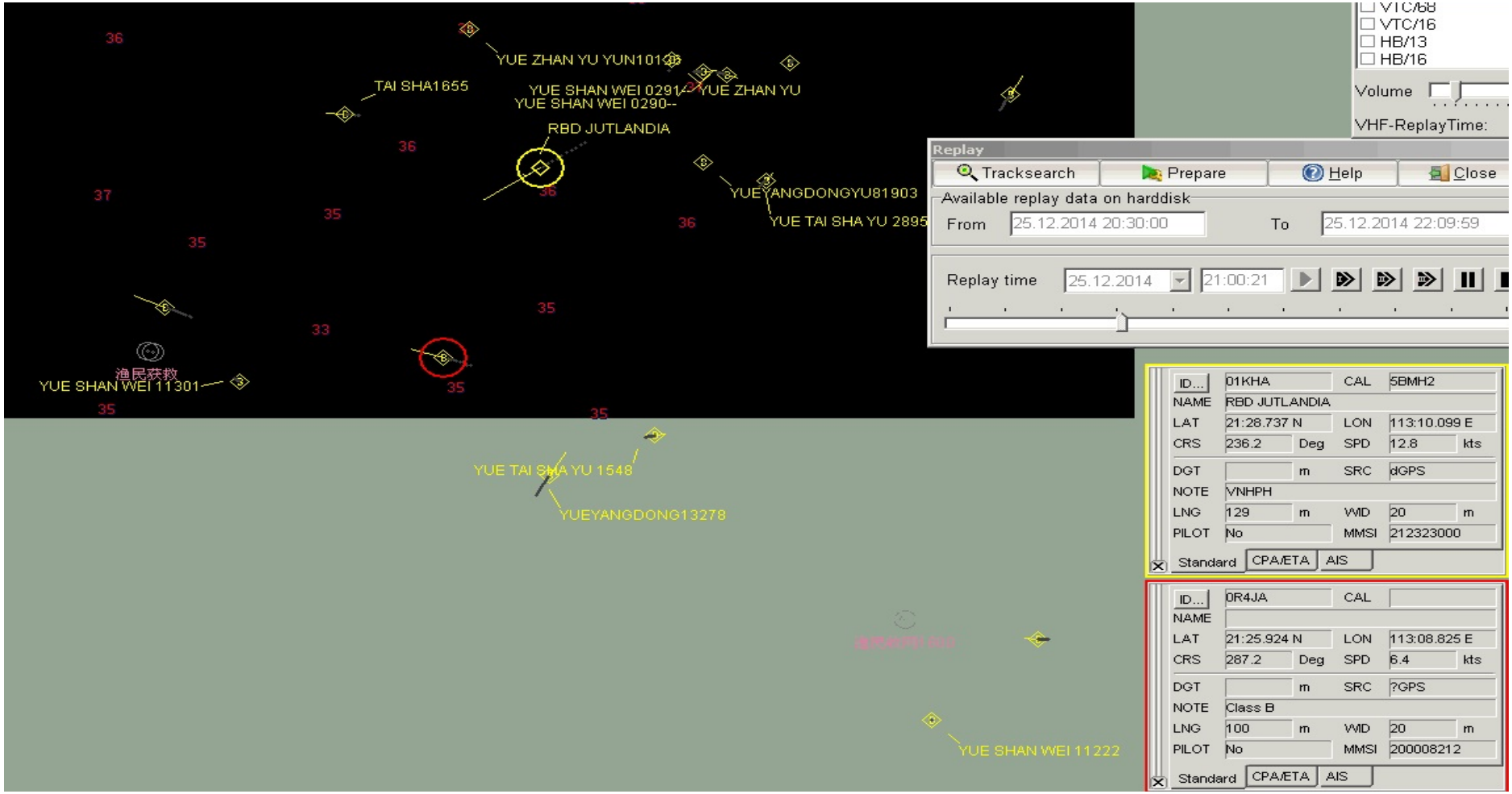


Fig.5 - the Zhuhai VTS radar screen at 2100 hours, the two vessels were approaching to each other on convergent courses with a risk of collision.

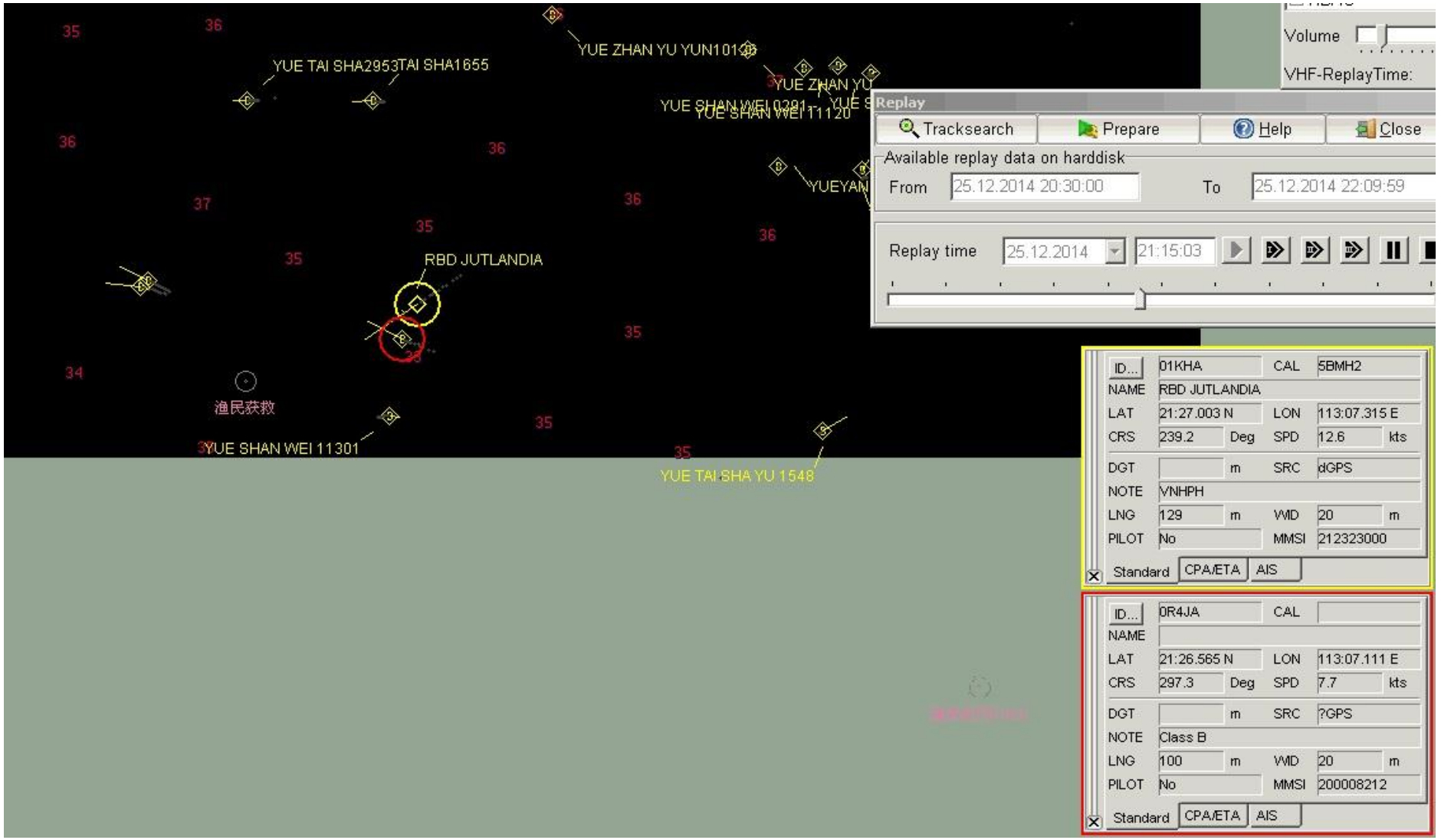


Fig.6 – the Zhuhai VTS radar screen at 2115, both vessels were closing under high risk of collision.

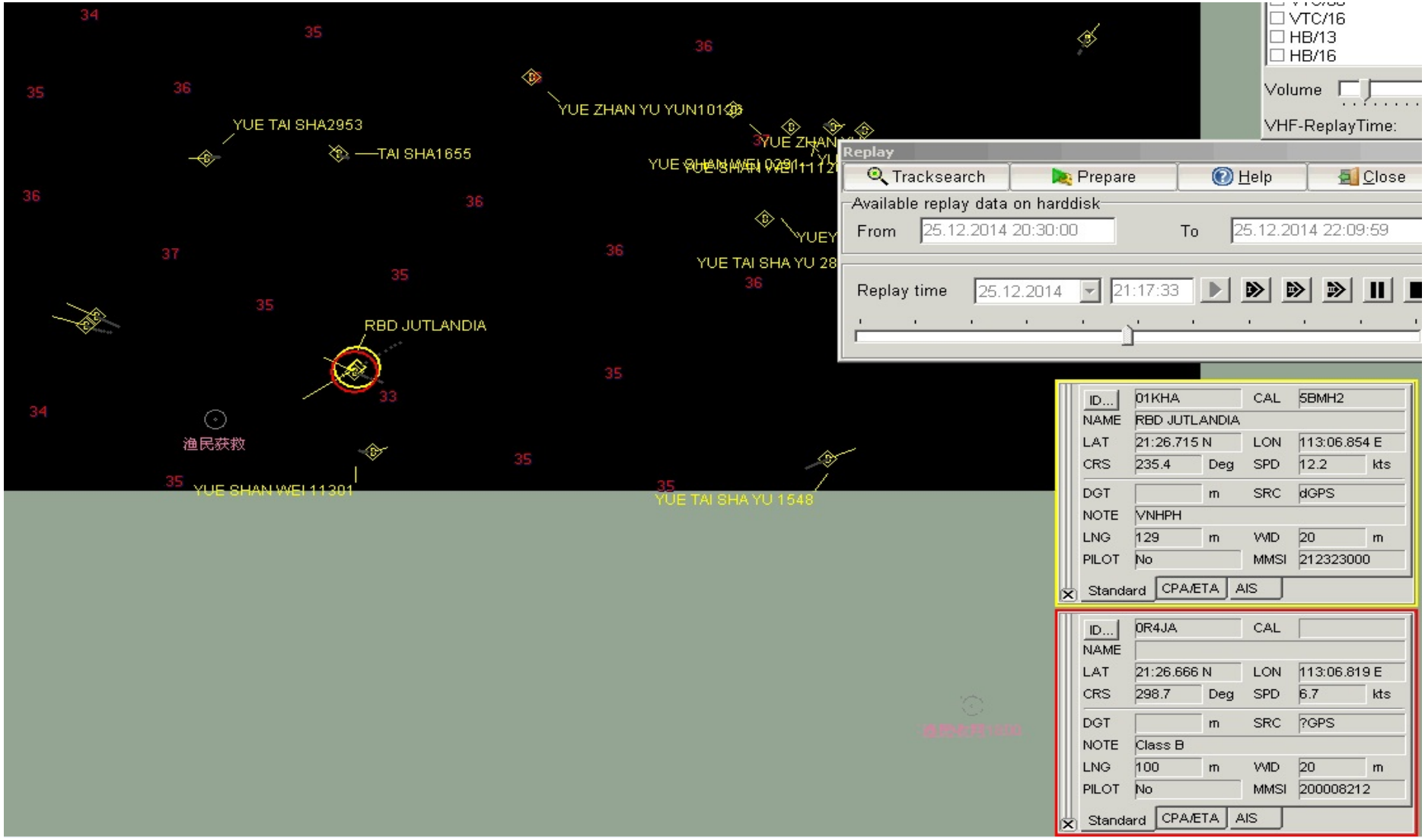


Fig.7 - the Zhuhai VTS radar screen at 2117, both vessels overlapped on one point.

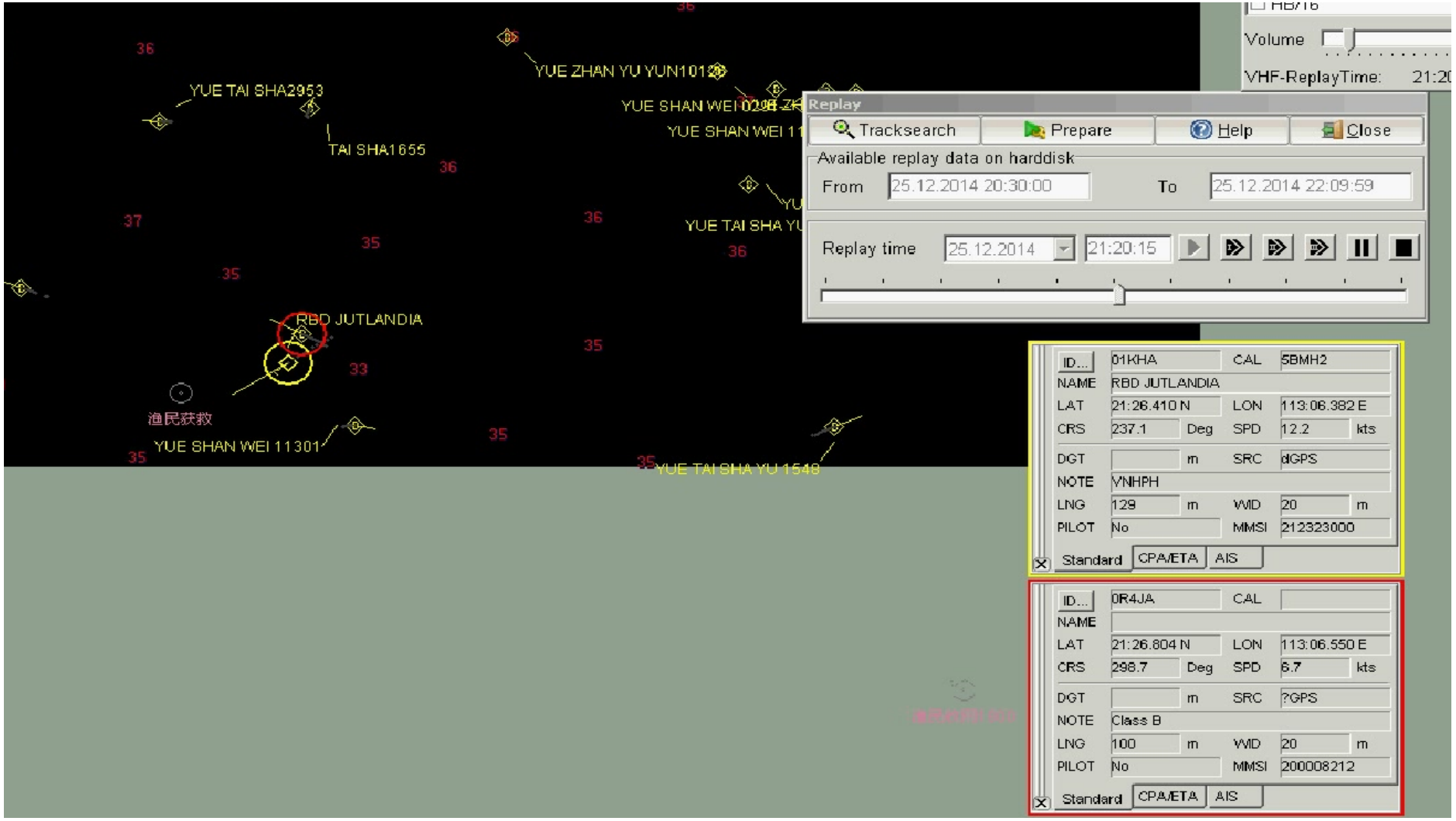


Fig.8- the Zhuhai VTS radar screen at about 2120, the cargo vessel “RBD Jutlandia” maintained her course and speed no change after collision.

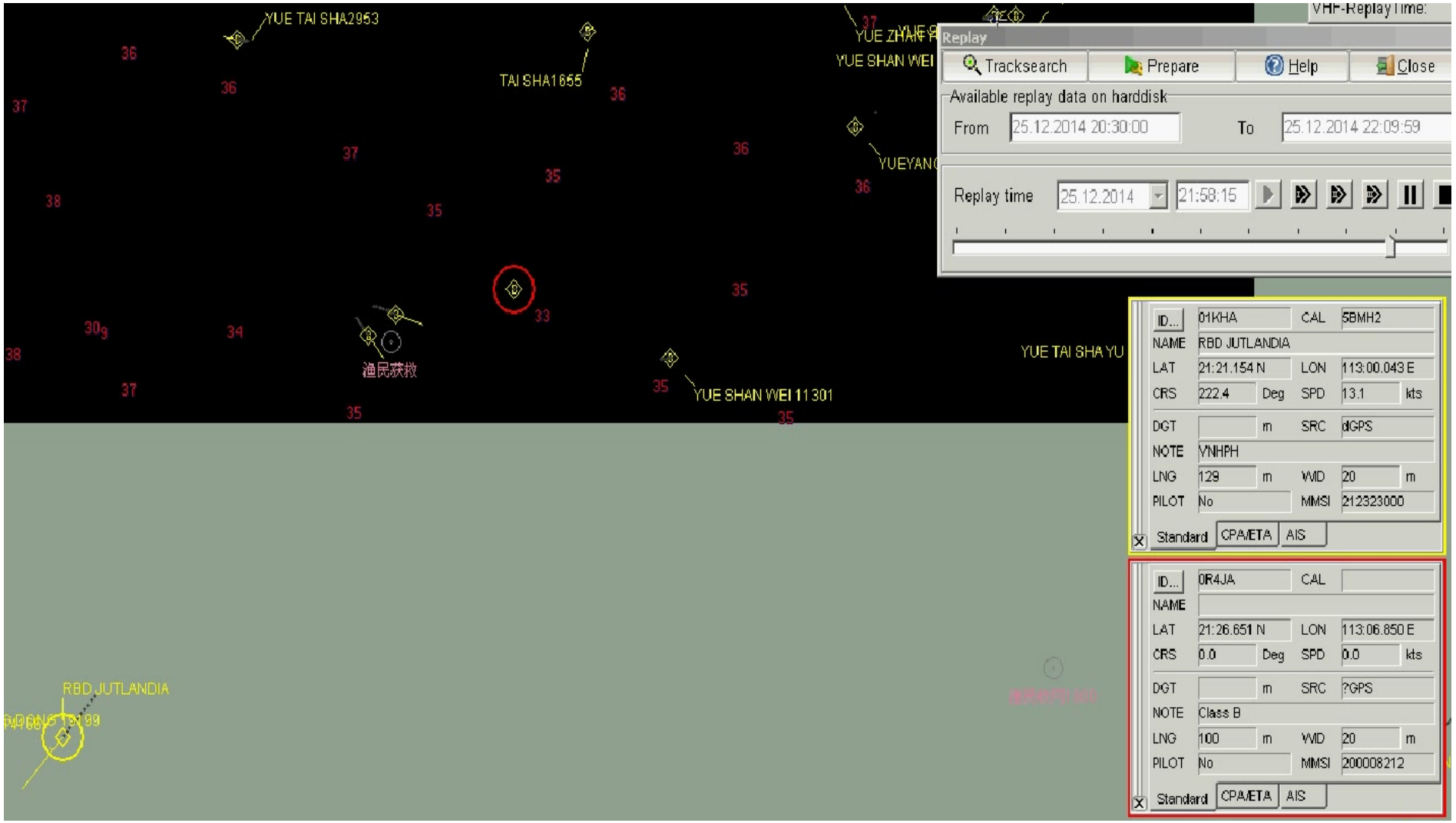


Fig.9 – The VTS radar screen at about 2158, two unnamed vessels arrived on the site of survivors.

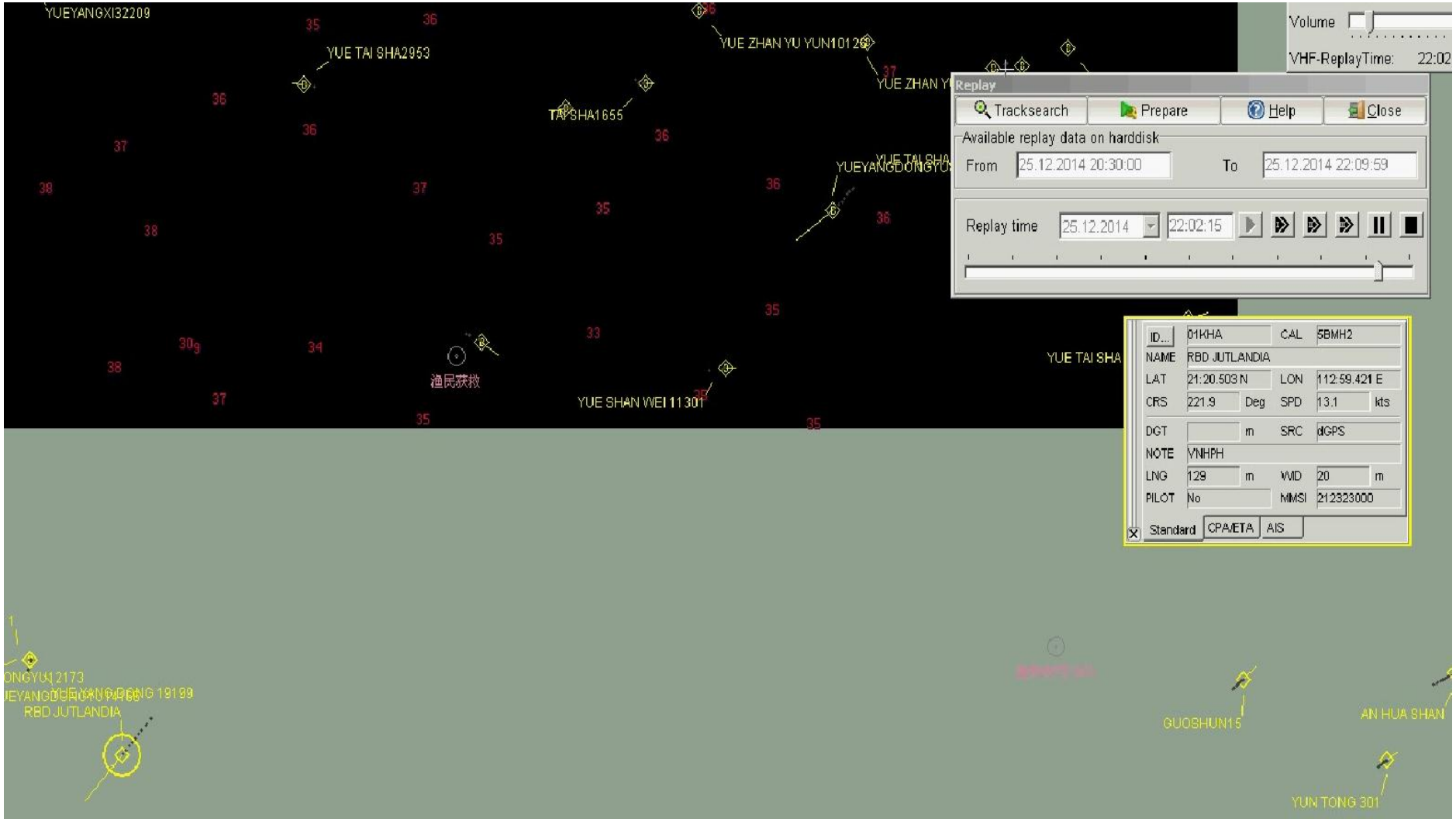


Fig.10- the VTS radar screen at about 2202, no AIS signal of the fishing vessel was received and displayed on radar screen anymore.

5. Analysis

Vessel and crew's certificate

5.1 The Cyprus registered cargo vessel "RBD Jutlandia" (*the cargo vessel)* was built in 2008, and was delivered to service in May 2009. The latest survey on *the cargo vessel* was conducted in February 2014 and the result was satisfactory. At the time of the accident, all statutory certificates of *the cargo vessel* were valid.

5.2 According to Minimum Safe Manning Certificate, *the cargo vessel* should be manned by at least 9 crew members including the master. There were a total of 11 crew members including the master on board. All of them held valid Certificates of Competency with respect to their posts on board the vessel. The master was a seasoned navigator by service on sea for more than ten years.

5.3 The Hong Kong licensed wooden fishing vessel "CM63963A" (*the fishing vessel*) was built and delivered to service on 19 April 1990. The latest survey was conducted for *the fishing vessel* on 13 June 2014 and the result was satisfactory. The certificate of survey and operating license for *the fishing vessel* were valid.

5.4 To facilitate the entry between Hong Kong and Chinese waters, *the fishing vessel* was also registered in Zhuhai for a permit to fish in the water area of Guangdong, China and South China Sea. A registered number "Zhuwan 3578" was assigned by the Zhuhai Fishing Administration to *the fishing vessel*.

5.5 According to the requirement of local regulations of Hong Kong, *the fishing vessel* should be manned with one coxswain and one engine operator, and the maximum capacity of persons on board was 8 persons. At the time of the accident, there were 7 persons on board. The coxswain held a valid certificate as a coxswain for fishing vessel, and another crew held a valid certificate as an engine operator for fishing vessel. The other five persons held fishing men certificates. *The fishing vessel* was manned properly.

The evidence of collision of both vessels

5.6 According to the records of Zhuhai VTS, the name "RBD Jutlandia" of *the cargo vessel,* as well as its course and speed, was clearly displayed on the radar screen by her AIS signal. After *the cargo vessel* had sailed past a group of fishing vessels at about 2048, the course and speed had remained stable on 238° and 12.8 knots respectively with no significant change till the collision

occurred.

5.7 At about 2117, the VTS radar screen displayed that the echo of this *cargo vessel* overlapped with an echo of an unnamed vessel in position about 21°26.7'N 113°06.8'E. This position was about 1.8 nm northeast off the survivors rescue position. The echo of unnamed vessel then disappeared about 40 minutes later at about 50 metres east of the above overlapping point.

5.8 On 30 December 2014, an inspection on *the cargo vessel* was conducted after her arrival at Hong Kong. Fresh scratching was found on the port side of bulbous bow and port side hull (Fig.11).

Fig.11 - Fresh scratches were found on the bulbous bow and port side hull of "RBD Jutlandia"

5.9 As per the statements of the survivors, *the fishing vessel* was in collision of her starboard forward of mid-ship with a big ship at about 2100 hours. There was no other big vessel in the vicinity at that time except *the cargo vessel* "RBD Jutlandia". Taken all the above evidence into account, it was deduced that *the cargo vessel* collided on the starboard side of *the* wooden *fishing vessel* by her port bow.

Weather Condition

5.10 At the time of the accident, it was showering heavily. Strong northeasterly wind was at force about 6 to 7 on the Beaufort scale. The sea condition was rough with waves up to 2 metres in height. But the visibility was fair with more than 2 nm. The weather condition was not considered a contributory factor for the collision.

Look-out and actions of avoiding collision

5.11 The visibility was fair even heavy showering affecting, and navigation lights of the both vessels were kept on. Furthermore, the deck lights of *the fishing vessel* were kept switched on. But the navigators of both vessels were not aware they were approaching to each other. Even after the collision, the master who was the officer on watch on bridge of *the cargo vessel* did not find *the fishing vessel* on her port bow. He was not aware of the collision. It was evident that the look-out of the navigators of *the cargo vessel* and *the fishing vessel* was not maintained properly.

5.12 As per the Zhuhai VTS radar records, *the fishing vessel* was proceeding on a westerly course of about 280°. On the starboard side of *the fishing vessel*, *the cargo vessel* was proceeding on a convergent course of about 238°. The two vessels were in a crossing situation and a risk of collision existed.

5.13 Since the navigators on both vessels did not notice each other, they had not taken any action to avoid collision until the collision happened.

Emergency response after the collision

5.14 After the collision, *the fishing vessel* was taking sea water through the damaged hull and eventually sank. The coxswain decided to abandon ship. He called his partner trawler for help by cellphone, and asked all crew members to jump into the sea with lifejackets and lifebuoys on. Due to heavy sea conditions and strong winds, all of them scattered in the sea. One crew member was missing.

5.15 The officer on watch of *the cargo vessel* did not notice the collision. He continued the voyage of *the cargo vessel* neither slowing down nor rendering help to *the fishing vessel* and her crew members. He did not report the collision to the local administration. If *the cargo vessel* had been aware of the incident and conducted the rescue operation for crew members of *the fishing vessel* in seawater immediately, the missing person might have been saved.

Watch-keeping arrangement on cargo vessel

5.16 At the time of the accident, the rating of the watch (i.e. the *OS*) of *the cargo vessel* was allowed to leave the bridge for attending a Christmas party without appropriate substitution. The chief engineer was not considered a qualified navigational watchkeeper on bridge. At night time and under bad weather

condition while *the cargo vessel* was sailing near to the coast where a number of fishing vessels existed, the master was the sole look-out in the hours of darkness on the bridge. The arrangement was not in compliance with the requirement of "Standards regarding watchkeeping, Chapter 8 of STCW", which stipulates that the navigational officer may be sole look-out in daylight on each occasion with full account of state of weather, visibility and traffic density, etc.

6. Conclusions

6.1 At about 1900 on 25 December 2014, , *the fishing vessel* commenced its return voyage to Taishan, China after 2 days of fishing operation in the South China Sea, at about 30 nm west of Taishan, China.

6.2 In the afternoon on 25 December 2014, *the cargo vessel* departed from Hong Kong and bounded for Haiphong, Vietnam.

6.3 At about 2117 on 25 December 2014, *the fishing vessel* collided with *the cargo vessel* in position 21°26.7'N 113°06.8'E. However, the navigator of *the cargo vessel* did not notice the collision and continued her voyage without stoppage or slowdown. *The fishing vessel* was flooded with sea water through the damaged area and eventually sank.

6.4 The coxswain and other six persons on board *the fishing vessel* abandoned ship and jumped into the sea, either wearing lifejackets or holding onto lifebuoys. Six persons including the coxswain were rescued by other fishing vessels in the vicinity. However, one of the persons was found missing in the water. No significant oil pollution was reported.

6.5 The investigation into the accident revealed that the contributory factors leading to the accident were as follows:

- Both the navigators of *the cargo vessel* and *the fishing vessel* did not maintain a proper look-out during sailing. They were not aware that their vessels were approaching each other on convergent courses with a risk of collision (COLREG Rule 5);
- The navigator of *the cargo vessel* did not maintain a proper navigational watch. He did not notice the collision even after the collision and failed to rescue the crew members of *the fishing vessel* in distress immediately.

6.6 The follow safety factor was also found on *the cargo vessel* :

- A sole look-out was arranged on the bridge of *the cargo vessel* in the hours of darkness. In which was not in compliance with the requirement of the STCW Code A/VIII-2 Para.16.

7. Recommendations

7.1 The management company of *the cargo vessel* should issue a safety circular informing all masters and officers of the findings of this accident investigation. Particular attention should be borne in mind as follows:

- always maintain a proper look-out;
- in the hours of darkness, avoiding a sole look-out arrangement of bridge watchkeeping;

7.2 Report the findings to Cyprus administration for their following up action.

8. Submission

8.1 In the event that the conduct of any person or organization is criticized in an accident investigation report, it is the policy of the Marine Department that a copy of the draft report in entirety or in part, should be given to that person or organization so that they can have an opportunity to express their comments on the report or offer evidence not previously available to the investigating officer.

8.2 Copy of the draft report was sent to the following parties for comments:

- The operation company, the master of *the cargo vessel "RBD Jutlandia"* ;
- The Cyprus administration, as the register authority of *the cargo vessel* "*RBD Jutlandia*";
- The owner / master of *the fishing vessel* "CM63963A".
- The Guangdong MSA, as the local administration authority.

8.3 Comments were received from Guangdong MSA only and the report was amended as appropriate.