Report of Investigation into the collision between the Hong Kong registered container ship *SAFMARINE NOMAZWE* and the Indonesian fishing vessel *ANUGRAH 89* in the Lombok Strait, Indonesia on 24 August 2014.

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

6 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 Merchant Shipping (Safety) Ordinance (Cap. 369), the Shipping and Port Control Ordinance (Cap. 313), 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 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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1. Summary

1.1 On 20 August 2014, the Hong Kong registered container ship *SAFMARINE NOMAZWE* (*the container ship*) sailed from Fremantle, Australia to Tanjung Pelepas, Malaysia. On 24 August 2014, the ship was proceeding northbound through the Indian Ocean sailing towards the Lombok Strait.

1.2 At 1000 local time on 24 August 2014, the Indonesian fishing vessel *ANUGRAH 89* (*the FV*) with 14 persons including the master onboard departed from Benoa port, Bali, Indonesia and sailed easterly to the fishing ground at Lombok Strait.

1.3 At about 1853 local time on 24 August 2014, the *container ship* collided with *the FV* at south of Lombok Strait, in approximate position 09^0 06'S 115^0 40'E. As a result, *the FV* was broken into 2 parts and the aft part sank rapidly. All crewmembers of *the FV* fell overboard, three of them were rescued by *the container ship* and the rest of the 11 persons including the master were missing.

1.4 The investigation into the accident revealed that the probable contributory factors to the accident are as follows:

a) The master of *the FV* did not comply with the following rules of the International Regulations for Preventing Collisions at Sea (COLREGS):

i) Rule 15 (crossing situation), being a give-way vessel in a crossing situation, *the FV* did not keep out of the way or avoid crossing ahead of *the container ship*; and

ii) Rule 16 (action by give-way vessel), *the FV* did not take early and substantial action to keep well clear of *the container ship*.

b) The duty officer of the container ship did not comply with the following rules of the COLREGS;

i) Rule 7 (risk of collision), she did not use all available means appropriate to the prevailing circumstances and conditions to determine if a risk of collision existed;

ii) Rule 8 (action to avoid collision), the action she took was too late and inadequate to avoid collision; and

iii) Rule 17 (action by stand-on vessel) (a) (ii) and (b), when she found that *the FV* did not take any appropriate action but still continued approaching own ship, she neither did take action to avoid collision, nor take action as best aid to avoid collision.

2. Description of the vessels

2.1	Name of the vessel	:	*SAFMARINE NOMAZWE*
	Flag	:	Hong Kong, China
	Port of Registry	:	Hong Kong
	IMO No.	:	9294381
	Call Sign	:	VRKZ7
	Ship Type	:	Container
	Keel Laid	:	2004
	Gross Tonnage	:	50,657
	Length (overall)	:	265.84m
	Breadth	:	37.30m
	Summer Deadweight	:	62,994
	Main Engine	:	Wartsila-Sulzer 8RT Flex96 C 45,760 KW
	Service speed	:	26.1 kts (ballast) / 24.4 kts (loaded)
	Classification Society	:	Lloyd's Register of Shipping
	Shipbulider	:	Odense Steel Shipyard, Denmark
	Registered Owner	:	Maersk Shipping Hong Kong Ltd
	Ship Manager	:	A.P. Moller – Maersk A/S

Figure 1 *SAFMRINE NOMAZWE*

2.2	Name of the vessel	:	*ANUGRAH 89*
	Flag	:	Indonesia
	Port of Registry	:	Benoa, Indonesia
	Ship Type	:	Fishing Vessel
	Hull Material	:	Wood
	Gross Tonnage	:	29
	Length (overall)	:	22.10m
	Breadth	:	4.15m
	Main Engine	:	Hino 240 HP

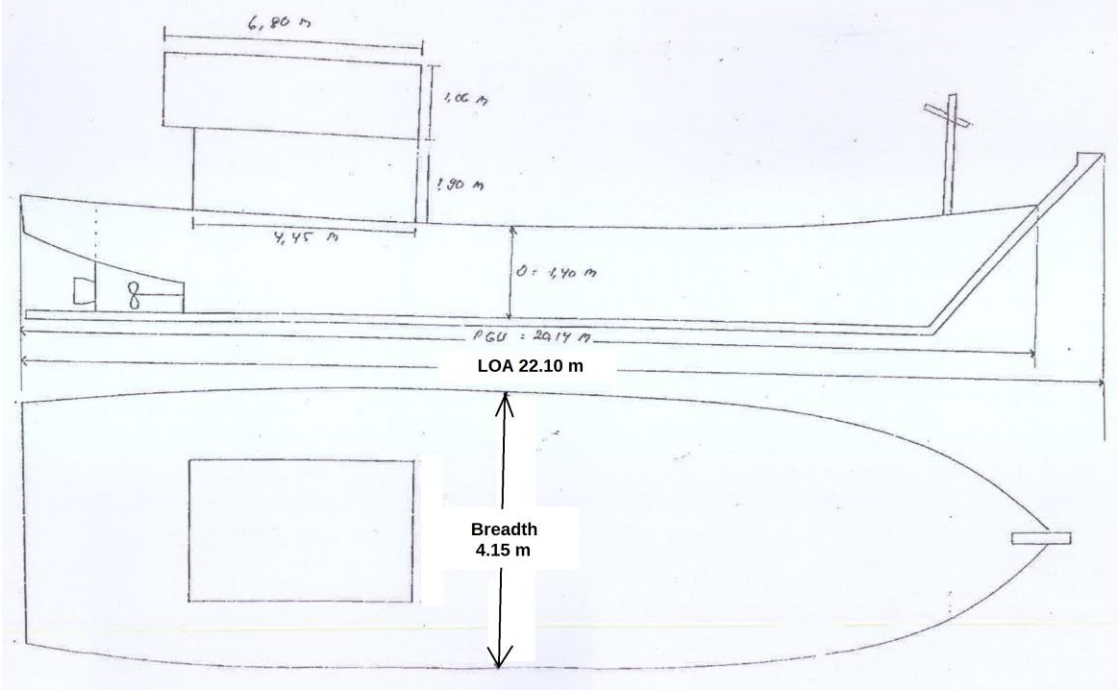

Figure 2 The sketch of *ANUGRAH 89*
(The sketch of *ANUGRAH 89* was provided by Marine Accident Investigation Subcommittee, National Transportation Safety Committee, Indonesia)

3. Sources of Evidence

3.1 Management company of *SAFMARINE NOMAZWE*

3.2 Marine Accident Investigation Subcommittee, National Transportation Safety Committee, Indonesia.

4. Outline of Events

All times are local i.e. UTC+ 8 hours

Account of *SAFMARINE NOMAZWE*

4.1 On 20 August 2014, the Hong Kong registered container ship *SAFMARINE NOMAZWE* (*the container ship*) sailed from Fremantle, Australia to Tanjung Pelepas, Malaysia.

4.2 On 24 August 2014, *the container ship* was proceeding northbound through the Indian Ocean heading towards the Lombok Strait.

4.3 There were 2 second officers on board the container ship. At about 1600 on 24 August 2014, when the incoming second officer attended the bridge to take over the watch keeping duty, the outgoing second officer stated that the bridge equipment, engine and steering gear were all working normally. *The container ship* was on a course of about 010^0 and her speed was about 15 knots. The weather was bad with east-south-easterly wind force 6 on the Beaufort scale and heavy swell from the southwest. The port radar was the master radar, displaying information from the S-band scanner. The starboard radar was the slave radar, displaying information from the same S-band scanner. Both radars were on the 12 nautical mile (nm) range and offset astern in order to scan as far as about 20 nm ahead of the ship. The X-band scanner was available on board but it was not selected. There was only a car carrier off the port quarter which was slowly overtaking *the container ship*, with a closet point approach (CPA) off her port side of about 0.6 nm and the time to CPA (TCPA) over one hour.

4.4 By about 1800, the speed of *the container ship* had been slackened to about 11 knots. It was due to the strong current which set in a southerly direction through the Lombok Strait.

4.5 Sunset time was at about 1815, the navigation lights were working normally. At about 1820, the duty officer carried out an all-round check visually and on radar for other vessels in the vicinity. The same car carrier was still gradually overtaking *the container ship* on her port side, this target had a CPA of about 0.6 nm and TPCA was 44 minutes. The duty officer also saw another vessel about 17 nm off which would pass well clear to port. The visibility was good and the lights of this vessel could be seen visually.

4.6 At about 1830, the duty officer changed the working chart to British Admiralty (BA) chart 3706 (Figure 3) which was in large scale covering the Lombok Strait and south of the Bali Island. The ship was located in approximate position 09^0 10.5' S, 115^0 39.0' E. *The container ship* was then on a heading of about 015^0 to follow her planned

course of 010^0 and the speed was about 11 knots over the ground.

4.7 At about the same time the duty seaman arrived at the bridge to assist lookout at night watch. The duty officer briefed him about the two vessels which could be seen on radar and visually.

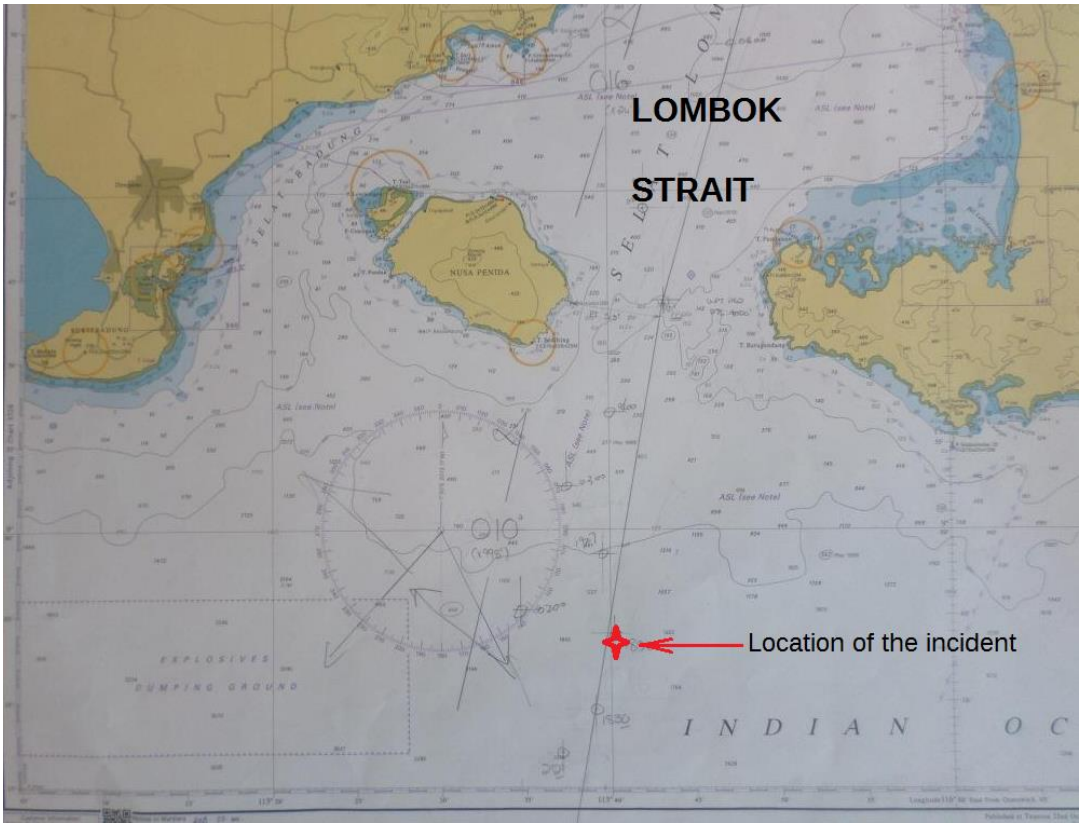

Figure 3 The ship's route on BA chart 3706
Location of the incident (09^0 06'S 115^0 40'E)

4.8 At about 1838 the duty officer saw another vessel off the port bow which looked like a small fishing vessel (*the FV*, i.e. *ANUGRAH 89*). So there were 3 vessels surrounding *the container ship*, i.e *the FV*, the overtaking car carrier and another vessel well clear on the port side (Figure 4). Although it was twilight and partly cloudy, the visibility was good and the shape of *the FV* could be visually observed. The duty officer checked the radar to see if the target of *the FV* would appear on the screen of the radar but there was only clutter. Both radars were maintained on the 12 nm range throughout the incident. The duty officer estimated that *the FV* was at a distance of about 2 to 3 nm, bearing about 35^0 off the port bow of the vessel. Shortly afterwards, *the FV* turned on a masthead light and some deck lights. However, there were no other identifiable navigation lights. The duty officer stated that *the FV* was about 12 metres in length. It was a blue colored fishing vessel with a white colored accommodation at its stern.

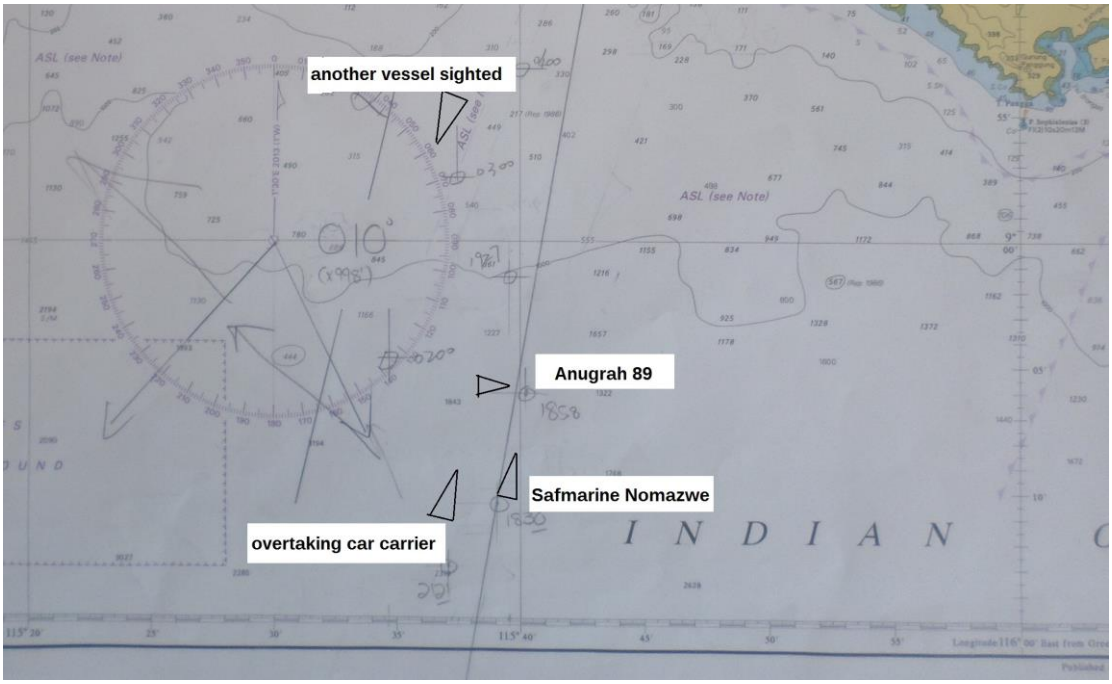

Figure 4 The ships' status at about 1838 om 24 August 2014

4.9 As *the FV* was approaching, the duty officer could see through the binoculars that there were people working on deck beneath the tarpaulin. *The FV* had a single bright light forward, although there were also some lights around the accommodation area and working lights over the deck in the middle of the boat. The duty officer stated that the boat appeared to be stationary in the water and she could not see any wake astern of *the FV*. The duty officer was also looking out for fishing equipment, but it was not found.

4.10 At about 1843, *the container ship* was on a heading of about 015^0, she was yawing to port and starboard in the heavy sea conditions with a speed of about 11 knots. There were only two targets on the radar screen. The overtaking car carrier was at a distance of about 1.4 nm off the port quarter with a CPA of about 1 nm to port. The passing vessel was at a distance of 13 nm off the port bow with a CPA of about 4.8 nm.

4.11 At about 1844, when *the FV* was about 1.5 to 2 nm off the port bow of *the container ship*, the duty officer altered her course slowly to starboard. At about 1850, *the container ship* was on a heading of about 025^0 after altering course by 10^0 to starboard in order to keep clear of *the FV* and the car carrier on the port side. Shortly afterwards, the duty seaman advised the duty officer that he thought *the FV* was moving towards them. Although the duty officer realized the movement of *the FV* was heading towards them, she did not call the captain. She stated that *the FV* would come close to own ship and then veer off and keep clear, according to her experience.

4.12 As the range closed, however, it did not appear as if *the FV* was trying to avoid them. Both the duty officer and duty seaman used their binoculars to try to ascertain if *the FV*

was turning away. The duty officer stated that she started to feel anxious and realized that *the FV* was actually very close to own ship and not turning away.

4.13 The duty officer then picked up the Aldis Lamp on the bridge and began to flash it towards *the FV*. She expected that *the FV* would veer away from own ship once she started to flash light signals at it. Meanwhile, she hesitated for a while about what to do. She asked the duty seaman to go out to the port bridge wing and to see if *the FV* was turning away but got a reply that "it's not turning".

4.14 At about 1853, just when *the FV* went out of sight under the port bow, the duty officer was on the phone calling the master to come to the bridge. Shortly afterwards the duty seaman saw the capsized hull of *the FV* drifting down the ship's starboard side.

Search and rescue (SAR) operation

4.15 Upon having received the request from the duty officer, the master went straight up to the bridge, followed by the chief officer. The master took over the con of the ship and instructed the chief officer to report to MRCC Bali regarding the incident.

4.16 The master then altered course to starboard and manoeuvred a Williamson turn (Figure 5) to head towards the datum position for the collision. A number of crewmembers were called to assist the search and rescue operation. The chief officer was instructed to prepare safety equipment to assist in the rescue of the survivors

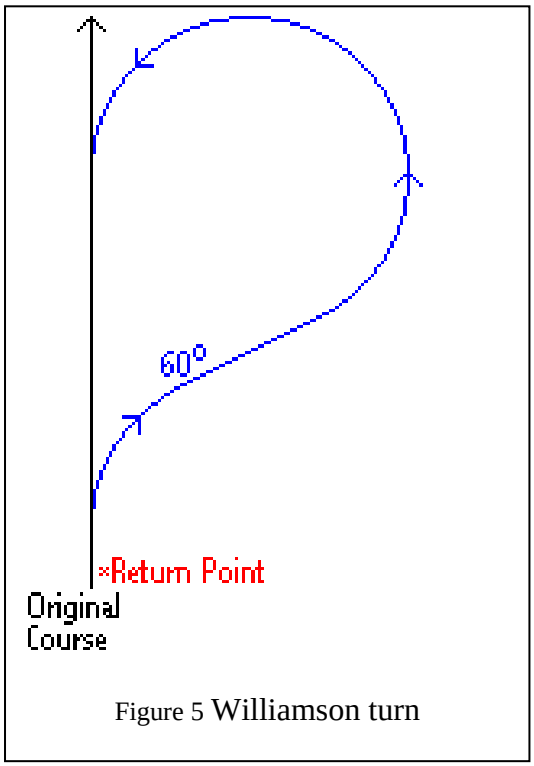

Figure 5 Williamson turn

4.17 While approaching the incident datum position, screams were heard and small light flashing could be seen from the starboard bow of *the container ship*. The master tried to keep the survivors on the starboard bow while creating a lee from the east-south-east wind on the port bow. Therefore he manoeuvred the ship to place upwind from the datum position.

4.18 As the first survivor was seen off the starboard side, the master manoeuvred the ship to try to bring him to the amidships on starboard side. The ship was rolling badly in the very heavy swell. Even though it was in the lee of the wind, the survivor was being pushed away from the ship and began to drift off.

4.19 Later other survivors were seen in the water. They were not wearing lifejackets and were staying on a floating piece of wreckage.

4.20 The wind, swell and sea condition made it extremely difficult to manoeuvre the ship in order to bring people alongside. The master manoeuvred the ship to place the wreckage under the starboard bow, mainly using the stern thruster to keep in the position. It was considered unsafe to launch the rescue boat.

4.21 While moving closer, there were nine people on the floating wreckage and the master ordered to pick them all up. The ship's crew had rigged numerous ropes, messenger lines, lifebuoys and scrambling nets along the starboard side of the ship. The forward liferaft embarkation ladder and lines were lowered to the survivors on the piece of wreckage. The intention was to use the lines to manoeuvre the wreckage alongside the embarkation ladder and scrambling nets, so that the survivors could climb up safely.

4.22 Unfortunately it seems that the survivors were frightened and started to jump off the wreckage into water in order to grab hold of the ropes. The ship's crew tried to indicate to them that scrambling nets were rigged along the starboard side of the ship.

4.23 The chief officer reported that two of the survivors managed to hold on to the embarkation ladder and climbed up, while another managed to get onto one of the scrambling nets and climbed up that way.

4.24 All the remaining survivors from the wreckage were in the water. As they were not wearing lifejackets, they were tired and were struggling to swim in the difficult condition. The chief officer reported that he saw a number of the survivors in the water drowning because they were unable to swim and were too tired to reach the side of the ship. Eventually they were drifted off in the darkness.

4.25 The SAR operation was continued but no further survivor was found. At about 0036 on 25 August 2014, *the container ship* was directed by MRCC Bali to end the SAR

operation and proceed on passage with three survivors on board.

Account of *ANUGRAH 89*

4.26 At 1000 on 24 August 2014, the Indonesian fishing vessel *ANUGRAH 89* (*the FV*) departed from Benoa port, Bali, Indonesia and bound for fishing ground at Lombok Strait. There were 14 persons on board *the FV*, including 1 master, 1 chief engineer, 2 crewmembers, 6 fishermen and 4 passengers who would work for the other fishing vessel upon arrival at the fishing ground.

4.27 At about 1853 on 24 August 2014, while *the FV* was sailing easterly at south of Lombok Strait in approximate position 09^0 06'S 115^0 40'E, she collided with a container ship (later identified as *SAFMARINE NOMAZWE*). *The FV* was broken into 2 parts with the aft part sank rapidly. The crew on board managed to come up to the fore part of *the FV*, which was capsized but still afloat.

4.28 After the collision, *the container ship* returned to rescue the persons in the water. However, only one crewmember of *the FV* and two passengers were rescued. The other 11 persons went missing. Finally the three survivors were handed over to the Indonesia Search and Rescue Officers and were sent to Tanjung Pinang, Bangka Belitung Province, Indonesia.

5. Analysis

5.1 Certificate and Experience of Personnel

SAFMARINE NOMAZWE

5.1.1 *SAFMARINE NOMAZWE* was registered in Hong Kong and classed by Lloyd's Register. All her statutory and classification certificates were valid at the time of the collision.

5.1.2 The master of *SAFMARINE NOMAZWE* held a Certificate of Competency (COC) as a master which was issued by the Government of India and valid until 31 December 2016. He also held a Hong Kong licence issued by the Marine Department, Hong Kong to certify him to work on board a Hong Kong registered ship. He started his seafarer experience in 1997 as a deck cadet and was promoted to the rank of chief officer in 2008. He had sailed in the capacity as a master since December 2011 and had finished seven contracts all in a command position onboard Maersk container ships. He joined *SAFMARINE NOMAZWE* on 4 July 2014 and his working experience was considered adequate as a master.

5.1.3 The duty officer held a COC as a deck officer which was issued by the Republic of South Africa and valid until 31 December 2016. She also held a Hong Kong licence issued by the Marine Department, Hong Kong to certify her to work on board a Hong Kong registered ship. She started her seafarer experience in 2005 as a deck cadet. She was promoted to the rank of fourth officer in 2007 and then the rank of third officer in 2008. In May 2009, she was promoted to the rank of second officer and had served as a second officer on board *SAFMARINE NOMAZWE* in the previous three contracts. She joined *SAFMARINE NOMAZWE* again on 28 May 2014. Her working experience was considered adequate as a second officer.

5.1.4 The duty seaman at time of collision was an ordinary seaman (OS). He had been employed as an OS for four years and he joined *SAFMARINE NOMAZWE* on 12 May 2014.

ANUGRAH 89

5.1.5 *ANUGRAH 89* was an Indonesian flagged fishing vessel with its registered port in Benoa. She owned the following certificates: Nationality certificate, issued in Benoa, valid until 5 September 2014; Manning and Seaworthiness certificate, issued in Benoa, valid until 3 October 2014; and Permit certificate, issued in Bali, valid until 20 June 2015.

5.1.6 All the ship's documents and certificates of the crewmembers sank together with the vessel.

5.1.7 One of the three survivors was the crewmember of *ANUGRAH 89.* It was the first time he worked at sea. The other two survivors were passengers.

5.2 **Actions taken by *SAFMARINE NOMAZWE***

5.2.1 The duty officer of *SAFMARINE NOMAZWE* maintained both the port and starboard radars displaying information provided by the S-band scanner and on a 12 nm range throughout the incident while the X-band scanner was not selected. At about 1838, the duty officer saw a third vessel off the port bow which looked like a small fishing vessel (*the FV,* i.e. *ANUGRAH 89*) at a distance of about 2 to 3 nm but she did not find *the FV* on the radar screen. However, she did not adjust the range scale on any one of the radars and select the X-band scanner as it could have better detection ability for small vessel and help to determine if risk of collision existed. Nor did she check the visual bearing of the target to determine whether there was a risk of collision. Therefore, the duty officer did not use all available means appropriate to the prevailing circumstances and conditions to determine if risk of collision exists in accordance with the Rule 7 (risk of collision) of the COLREGS.

5.2.2 As *the FV* moved closer, the duty officer watched *the FV* by binoculars and she judged that *the FV* was stationary in the water. Then she decided to alter course by about 10^0 to starboard in order to keep well clear of *the FV* and the car carrier on the port side. From 1843 to 1850 on 24 August 2014, the radar screenshots confirmed that *the container ship*'s heading had been changed from 015^0 to 025^0. However, under the prevailing weather condition at that time, an alteration of 10^0 was insufficient to keep well clear of *the FV.* There was sufficient sea room to allow a large alteration of course to starboard. When the duty seaman reported that *the FV* appeared to start moving towards his own ship, the duty officer did not appreciate the situation. She presumed that *the FV* would eventually clear away on its own. Finally she called the master, but it was too late. She failed to comply with the Rule 8 (Action to avoid collision) of the COLREGS.

5.2.3 According to the duty officer of the container ship, *the FV* did not display any light of fishing as per requirement of Rule 26 (fishing vessel) of the COLREGS and did not have any visible fishing gear out. It was probable *the FV* was a power driven vessel in a crossing situation in which *the FV* was the give-way vessel. However, when the duty officer of *the container ship* noticed that *the FV* did not take appropriate action but still continued approaching own ship, she did neither take action to avoid collision, nor take action as best aid to avoid collision in accordance with Rule 17 (action by

stand-on vessel) (a) (ii) and (b) of the COLREGS.

5.3 Actions taken by *ANUGRAH 89*

5.3.1 There was little evidence could be obtained from the crewmembers of *the FV*, A total of eleven crewmembers were missing and only three persons were rescued. At the time of collision, all the three survivors were sleeping and they did not know what action was taken by *the FV* in the incident, other than feeling a hard collision.

5.3.2 The exact course and speed of *the FV* were unknown. However, *the FV* was sailing easterly and on her way to the fishing ground. Therefore, *the FV* appeared to be a power-driven vessel and met *the container ship* in a crossing situation. *The FV* had *the container ship* on her starboard side and she was the give-way vessel; while *the container ship* had *the FV* on her port side and she was the stand-on vessel. *The FV* did not take early and substantial action to keep out of the way of *the container ship* in accordance the Rule 15 (crossing situation) and Rule 16 (action by give-way vessel) of the COLREGS.

5.3.3 According to the statement of the duty officer and duty seaman of *the container ship*, *the FV* was heading towards to the container ship until the collision, it was probable that *the FV* did not maintain proper look-out. However, there was no evidence to indicate why *the FV* did not take action to avoid the collision.

5.4 Weather and visibility

5.4.1 According to *the container ship*, the weather was rough with east-south-easterly wind of force 6 on the Beaufort scale and heavy swell from the southwest. The visibility was very good so that a vessel at 17 nm away could be seen visually. The weather conditions were not considered to have any bearing on the occurrence of the accident.

5.5 Equipment and engine

5.5.1 Evidence indicated that all navigational equipment and engine of *the container ship* were working normally in the incident.

5.5.2 There was no evidence regarding the working conditions of the equipment and engine of *the FV* before the collision.

6. Conclusions

6.1 On 20 August 2014, the Hong Kong registered container ship *SAFMARINE NOMAZWE* (*the container ship*) sailed from Fremantle, Australia to Tanjung Pelepas, Malaysia. On 24 August 2014, the ship was proceeding northbound through the Indian Ocean sailing towards the Lombok Strait.

6.2 At 1000 on 24 August 2014, the Indonesian fishing vessel *ANUGRAH 89* (*the FV*) with 14 crewmembers including the master onboard departed from Benoa port, Bali, Indonesia and sailed easterly to the fishing ground at Lombok Strait.

6.3 At about 1853 on 24 August 2014, *the container ship* collided with *the FV* at south of Lombok Strait, in the approximate position 09^0 06'S 115^0 40'E. As a result, *the FV* was broken into 2 parts and the aft part sank rapidly. All crewmembers of *the FV* fell overboard, three of them were rescued by *the container ship* and the rest of the 11 persons including the master were missing.

6.4 The investigation into the accident revealed that the probable contributory factors to the accident are as follows:

a) The master of *the FV* did not comply with the following rules of the COLREGS:

i) Rule 15 (crossing situation), being a give-way vessel in a crossing situation, *the FV* did not keep out of the way or avoid crossing ahead of *the container ship*; and

ii) Rule 16 (action by give-way vessel), *the FV* did not take early and substantial action to keep well clear of *the container ship*.

b) The duty officer of *the container ship* did not comply with the following rules of the COLREGS;

i) Rule 7 (risk of collision), she did not use all available means appropriate to the prevailing circumstances and conditions to determine if a risk of collision existed;

ii) Rule 8 (action to avoid collision), the action she took was too late and inadequate to avoid collision; and

iii) Rule 17 (action by stand-on vessel) (a)(ii) and (b), when she found that *the FV* did not take any appropriate action but still continued approaching own ship, she neither did take action to avoid collision, nor take action as best aid to avoid collision.

7. Recommendations

7.1 The management company of *SAFMARINE NOMAZWE* is recommended to issue notice/circular to draw the attention of their master and officers to the findings of this accident and remind them to comply with the COLREGS at all times, in particular, Rule 7 (risk of collision), Rule 8 (action to avoid collision) and Rule 17 (action by stand-on vessel).

7.2 The owner of *ANUGRAH 89* should remind their master and navigating officer to comply with the COLREGS at all times, in particular, Rule 15 (crossing situation) and Rule 16 (action by give-way vessel).

7.3 The Marine Accident Investigation Subcommittee, National Transportation Safety Committee, Indonesia should be advised of the findings of the investigation.

8. Submission

8.1 In the event that the conduct of any person or organization is commented in an accident investigation report, it is the policy of the Marine Department to send a copy of the draft of the report, in part or in its entirety, to that person or organization for their comments.

8.2 The draft of the safety investigation report was sent to the following parties for comments:

i. The second officer, master, owner and management company of *SAFMARINE NOMAZWE*.

ii. The owner of *ANUGRAH 89*.

iii. Marine Accident Investigation Subcommittee, National Transportation Safety Committee, Indonesia.

iv. The Shipping Division of Hong Kong Marine Department.

8.3 Submissions were received from the management company of *SAFMARINE NOMAZWE* , the Shipping Division of Hong Kong Marine Department and Marine Accident Investigation Subcommittee, National Transportation Safety Committee, Indonesia. The report was amended as appropriate according to the submissions.