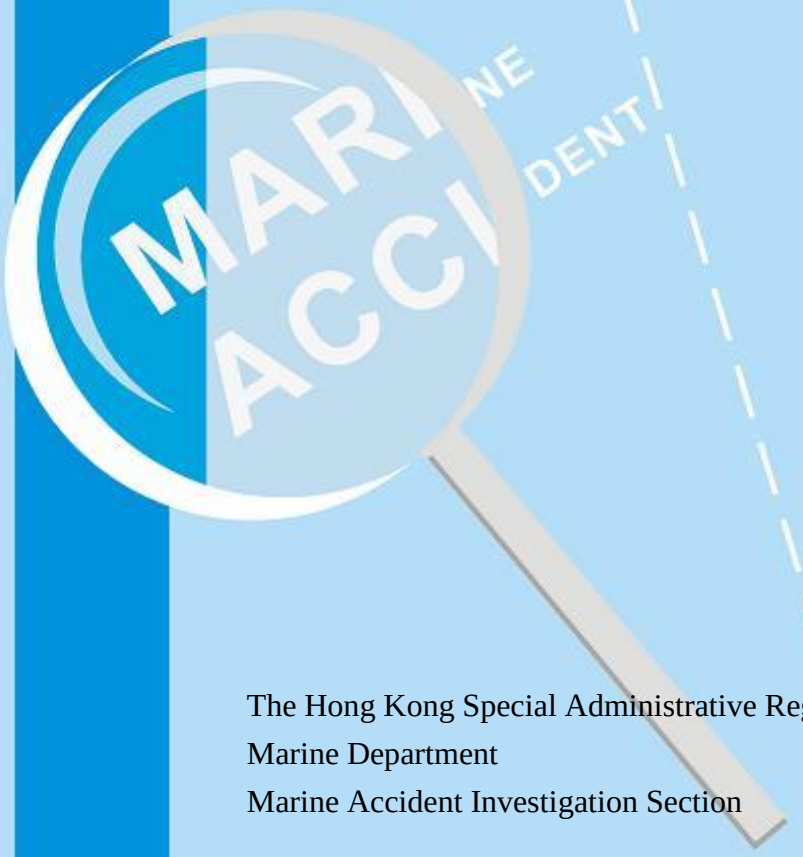
Report of Investigation into the grounding of the open cruiser *NAA-3797*, at Cham Tau Chau, Hong Kong on 26 April 2015



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

14 April 2016

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 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.

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1. Summary

1.1 At about 0200 on 26 April 2015, a locally licensed open cruiser *NAA-3797* (*the cruiser*) with a total of four persons on board including the coxswain departed from the Sai Kung (西貢) public pier for Tsam Chuk Wan (斬竹灣). While the *cruiser* passing the water in between Yeung Chau (羊洲) and Cham Tau Chau (枕頭洲), she hit a mooring buoy.

1.2 The coxswain and the crew of *the cruiser* were injured and became unconscious. *The cruiser* lost control and veered towards the north of Cham Tau Chau. Finally *the cruiser* went up and stranded on the beach at the northern part of the island in the approximately position of 22^0 22.81'N, 114^0 17.32'E at about 0210.

1.3 The crew woke up first and he called the Police for assistance. The Marine Police launch arrived at the scene and took all the four injured persons to the hospital for medical treatment.

1.4 The bow and the port outboard engine of the cruiser were damaged.

1.5 At the time of the accident, it was cloudy with light breeze wind, calm sea and good visibility.

1.6 The investigation into the accident revealed that the main contributing factors as follows:

a) the coxswain of the cruiser did not proceed at a safe speed (Rule 6 of COLREG 1972) which caused the coxswain could not take proper and effective action to avoid the accident ;

b) the coxswain also did not maintain a proper look-out (Rule 5 of COLREG 1972) by all available means, such as radar, to detect and keep well clear of any obstruction at sea during navigation; and

c) the coxswain did not follow the "Important Safety Instruction" of operation manual to wear the safety lanyard (the kill cord) while under way.

2. Description of the open Cruiser

Certificate of Ownership Number: 140932

Name of the vessel:	*NAA-3797*
Licensed issued by:	Hong Kong Marine Department
Vessel Class:	IV
Vessel Type:	Open Cruiser
Category:	Speed Boat
Material of Hull:	Glass-reinforced Plastic
Year Built:	2010
Length Overall:	11.55 metres
Extreme Breadth:	3.19 metres
No. of person permitted to carry:	8 persons
Main Engine:	Mercury Petrol/outboard, 223.8 KW x 3 sets
Owner:	DEEP BOWL LIMITED

Fig. 1 –*NAA-3797* view after the incident

3. Sources of Evidence

3.1 The owner of *NAA-3797*.

3.2 The Harbour Patrol Section of Marine Department.

3.3 Hong Kong Observatory.

3.4 The Aids to Navigation and Mooring Unit of Marine Department.

4. Outline of Events

4.1 At about 0045 on 26 April 2015, a locally licensed open cruiser *NAA-3797* (*the cruiser*), certificate of ownership number 140932, with a coxswain, a crew and a passenger on board, sailed from Tsam Chuk Wan to Sai Kung, to pick up another passenger.

4.2 At about 0130, *the cruiser* arrived at the Sai Kung public pier and the passenger came on board afterwards. At about 0200, with a total of four persons on board, *the cruiser* departed from Sai Kung for Tsam Chuk Wan. The cruiser proceeded with her normal cruising speed according to the statement of the crew and a passenger onboard the vessel.

4.3 It was cloudy weather with light breeze wind, calm sea and fine visibility. There was no other vessel in the vicinity while *the cruiser* was under way. *The cruiser* was equipped with one radar but it was not switched on while under way.

4.4 Shortly after passing the water in between Yeung Chau and Cham Tau Chau, *the cruiser* altered course to starboard (Fig. 2). Suddenly, *the cruiser* crushed into an object (it was later found to be a mooring buoy). The coxswain was ejected from the driver position and hit on the front wind shield, then fell on the deck unconsciously. *The cruiser* became not under control and veered towards the north of Cham Tau Chau. Finally, she went up and stranded on the beach at the north of Cham Tau Chau, in the approximately position of 22^0 22.81'N, 114^0 17.32'E at about 0210 (Fig. 3).

4.5 The crew was injured and unconscious. He woke up soon and called "999" emergency center for assistance.

4.6 Two passengers on board were injured. Marine Police launch arrived at the scene later and took all the four injured persons to the hospital for medical treatment.

4.7 *The cruiser* sustained serious damage to its bow (Fig. 4) and the propeller and skeg of port outboard engine (Fig. 5).

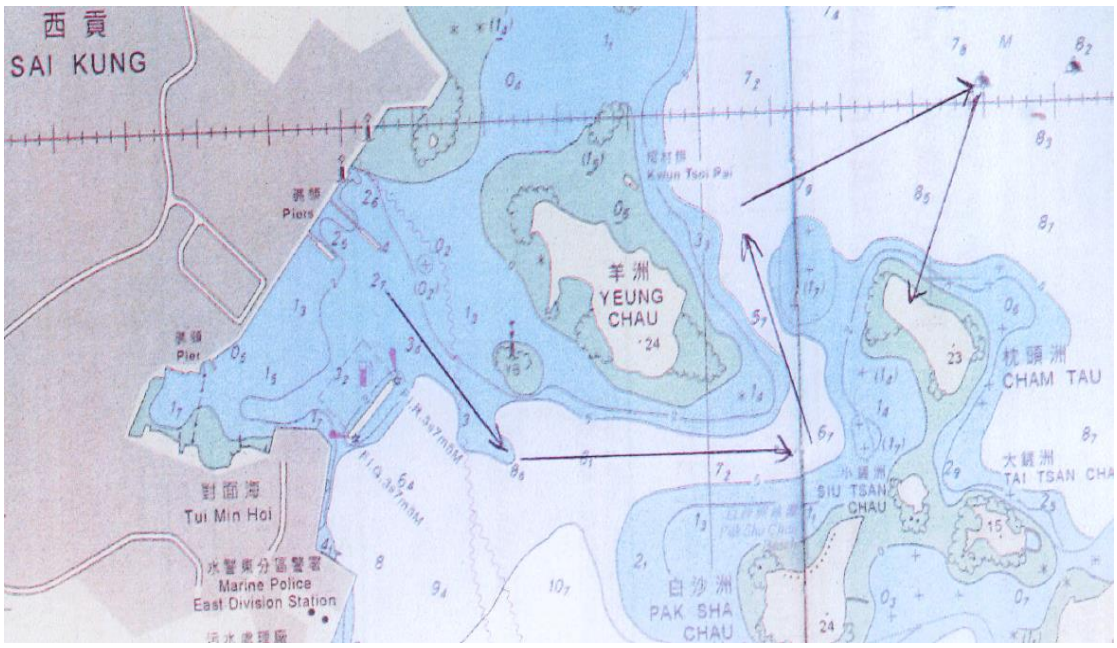

Fig. 2 –route of *NAA-3797*

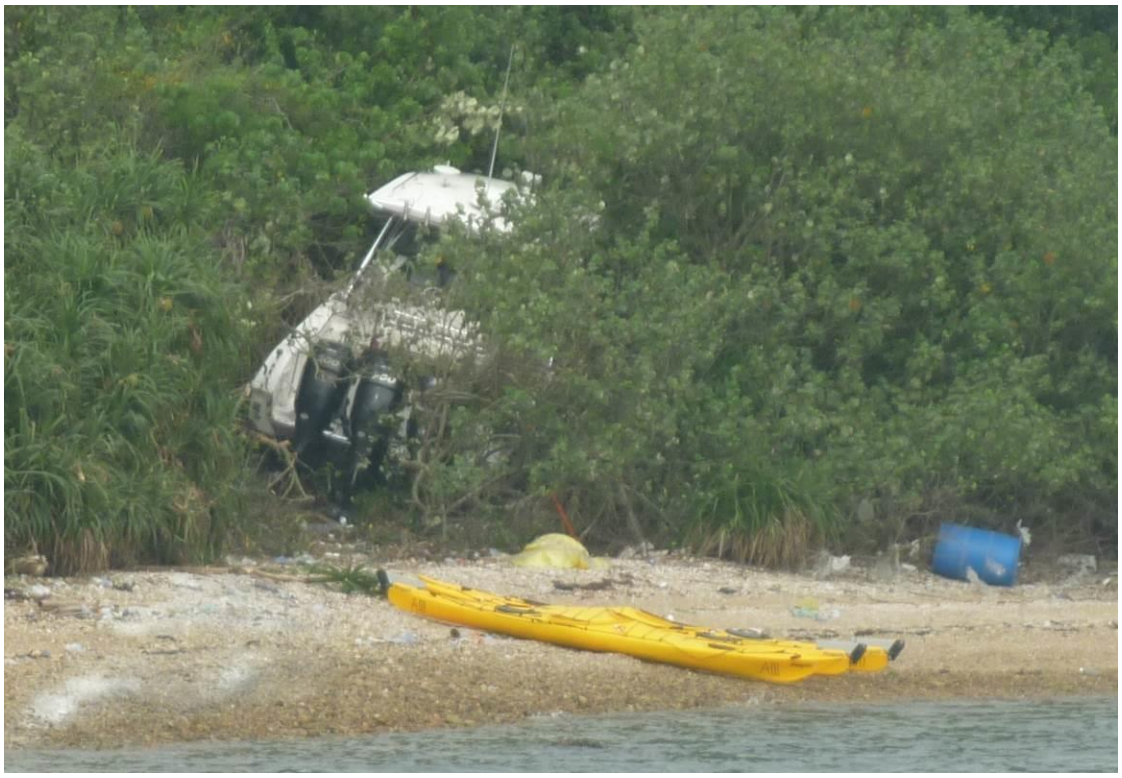

Fig. 3 - *NAA-3797* went up and stranded on the beach of Cham Tau Chau

Fig. 4 - The damage of *NAA-3797* at the bow

Fig. 5 – The propeller and skeg of the port outboard engine was damaged

5. Analysis

Certification of *the cruiser* and the Coxswain

5.1 *The cruiser* was issued with an Operating License by the Marine Department with validity of one year from 28 May 2014 to 27 May 2015.

5.2 The coxswain of *the cruiser* held a Pleasure Vessel Certificate of Competency, Grade I, which is valid until 17 November 2022. He was qualified to operate pleasure vessels of 20 metres or less in length in Hong Kong waters.

5.3 The coxswain had served on board local vessels for about 30 years and had served on *the cruiser* for about three years.

5.4 *The cruiser* manned with the coxswain and one crew on board which met the minimum requirements of the Section 47 in Cap.548D at the time of the accident.

5.5 *The cruiser* installed with three sets of petrol outboard engines for vessel propulsion. The engines delivered a total output power of 671.4 kW (i.e. 223.8 KW x 3) at the maximum speed of about 50 knots depending her load.

Hitting the mooring buoy

5.6 According to the statement of the crew and one of the passengers, there was no other vessel in the vicinity while *the cruiser* was under way.

5.7 In the waters off the north of Cham Tau Chau, there is a group of steel mooring buoys (diameter 3.66 meters x height 1.845 meters, 9 buoys) which have been placed in the water for many years. The Charts for Local Vessels in Hong Kong Waters published by the Hydrographic Office of Hong Kong Marine Department have clearly indicated the locations of the mooring buoys (Fig.7). An experienced coxswain or navigator should be well familiarized with these mooring buoys.

5.8 Investigation revealed that one of the mooring buoys with marking "PETWH-C" was turned upside down and there was a fresh paint scratch mark and dent on the buoy (Fig. 8 and Fig. 9). It was highly probable that *the cruiser* hit that mooring buoy before stranding on the beach in the incident.

Safe speed & Look-out

5.9 There was no radar surveillance data to trace the course and speed of the cruiser prior to the accident. Neither the coxswain nor the crew could provide details about the speed of *the cruiser* during the course of the accident. However, due

to the extent of damage to the bow of *the cruiser* and her position of stranding on the island which was about 400 metres distance from the buoy, it was probable that she was sailing at a high speed prior to hit the mooring buoy. After hitting the mooring buoy, *the cruiser* lost control and veered towards the island at a high speed. It was deduced that *the cruiser* did not proceed at a safe speed. As a result, the coxswain of the cruiser could not take proper and effective action to avoid hitting the mooring buoy.

5.10 Even without requirement, *the cruiser* was equipped with radar, which was in good condition, but it was not switched on to assist navigation at the time of the incident. The coxswain of *the cruiser* did not maintain a proper look-out by all available means.

Safety switch with safety lanyard (Kill cord)

5.11 A safety switch with a red safety lanyard (also known as a kill cord) was fitted on the control panel of the cruiser (Fig.6, Fig.7). It was a safety mechanism used to shut off the engines in an emergency situation to stop the cruiser. The toggle safety switch could be activated by pulling the red safety lanyard to stop the propulsion engines.

Fig. 6 – The safety lanyard and the toggle safety switch were intact after the accident

5.12 A warning list was highlighted in the important safety instruction of the "Operation, Maintenance and Warranty Manual" of the boat. Warning item 19

described that "Always wear your safety lanyard while under way." (Fig.7) If the safety lanyard was worn by the driver, the leaving of the driver from the driver position would pull the safety lanyard to activate the toggle safety switch to stop the engines.

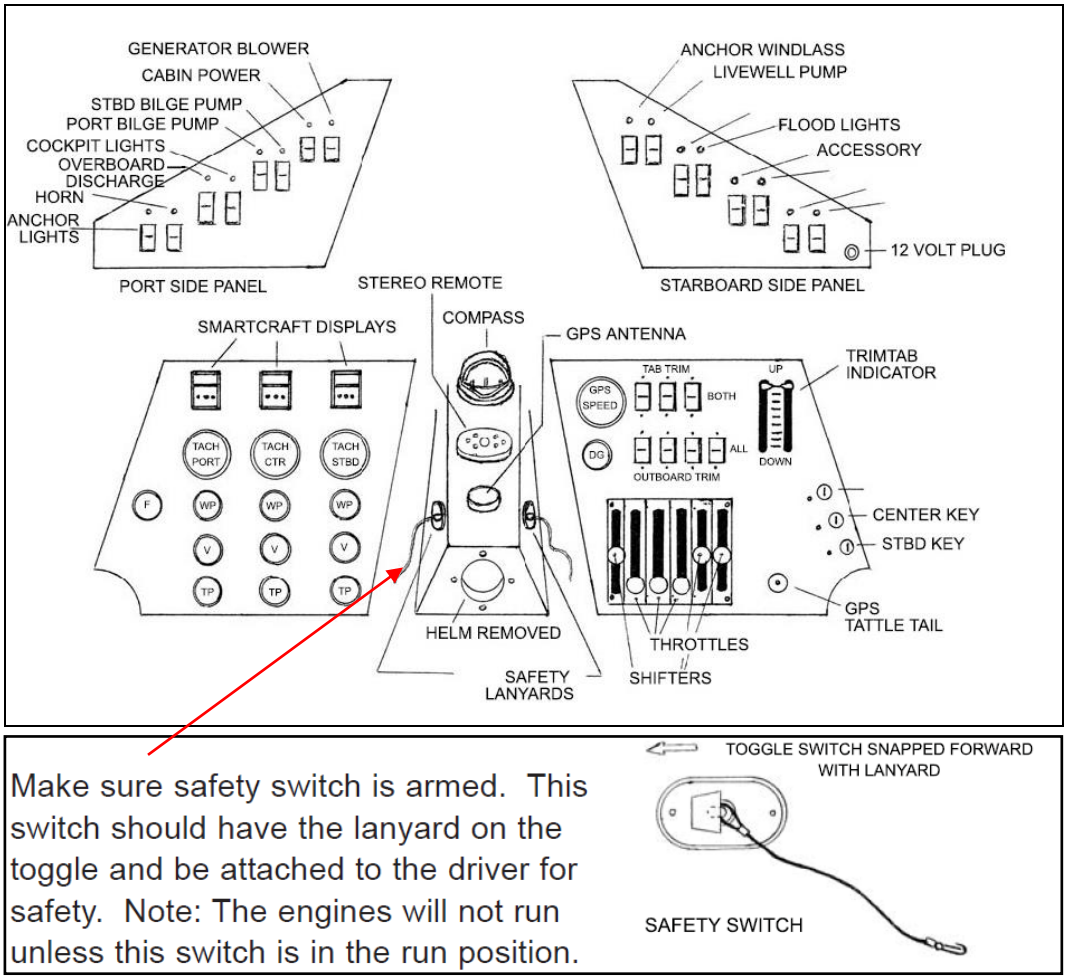

Fig.7 – The control console and the safety switch (from the manual).

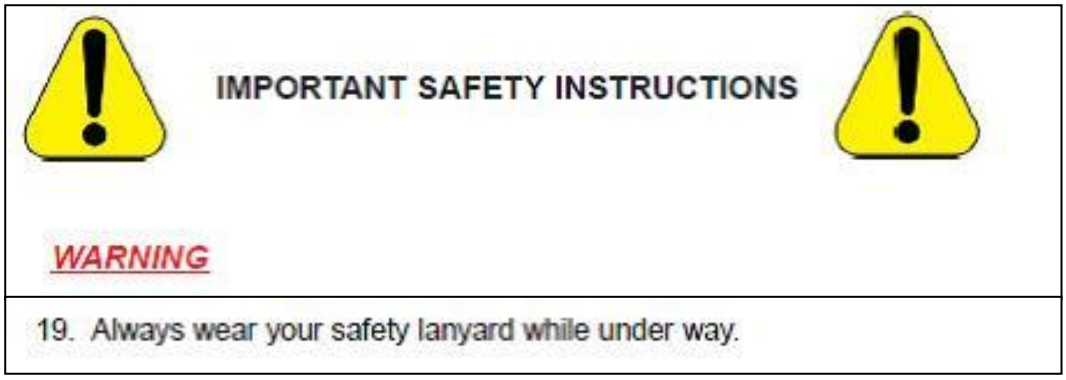

Fig.8 - The warning of wearing safety lanyard in the manual (from the manual)

5.13 After hitting the mooring buoy, the coxswain lost his consciousness and laid down on the deck away from the steering position. The boat continued to run about 400 metres with no-one at the helm at high speed and the boat finally went aground on the beach. Inspection of the boat found the toggle safety switch and safety lanyard were intact and tidy on the console. The evidence indicated that the safety lanyard was not worn/attached by the coxswain while the boat was under way before hitting the buoy. Therefore, the engines of the cruiser could not be shut down as no pulling of the safety lanyard was initiated by the coxswain. The cruiser continued running at a high speed until went aground on the beach.

Alcohol or drugs impairment

5.14 There was no evidence to suggest that alcohol or drugs were taken by the coxswain of *the cruiser*.

Fig. 9 – Mooring buoys exist off the north of Cham Tau Chau, one capsized.

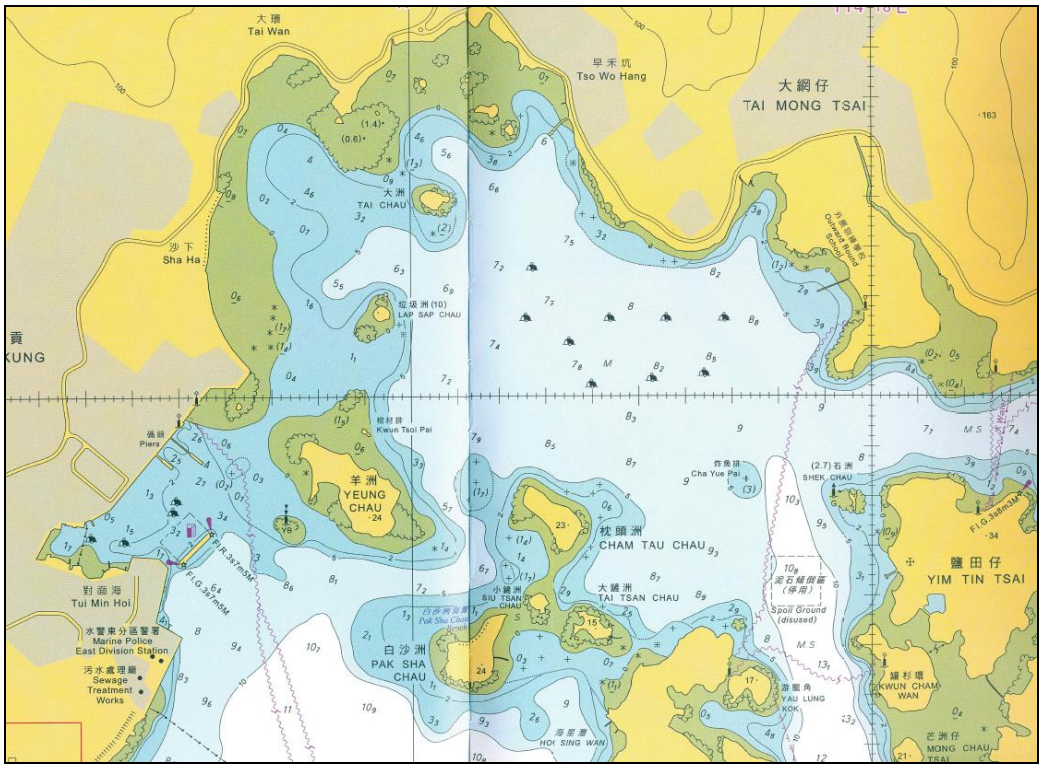

Fig. 10 – Nine mooring buoys exist off the north of Cham Tau Chau

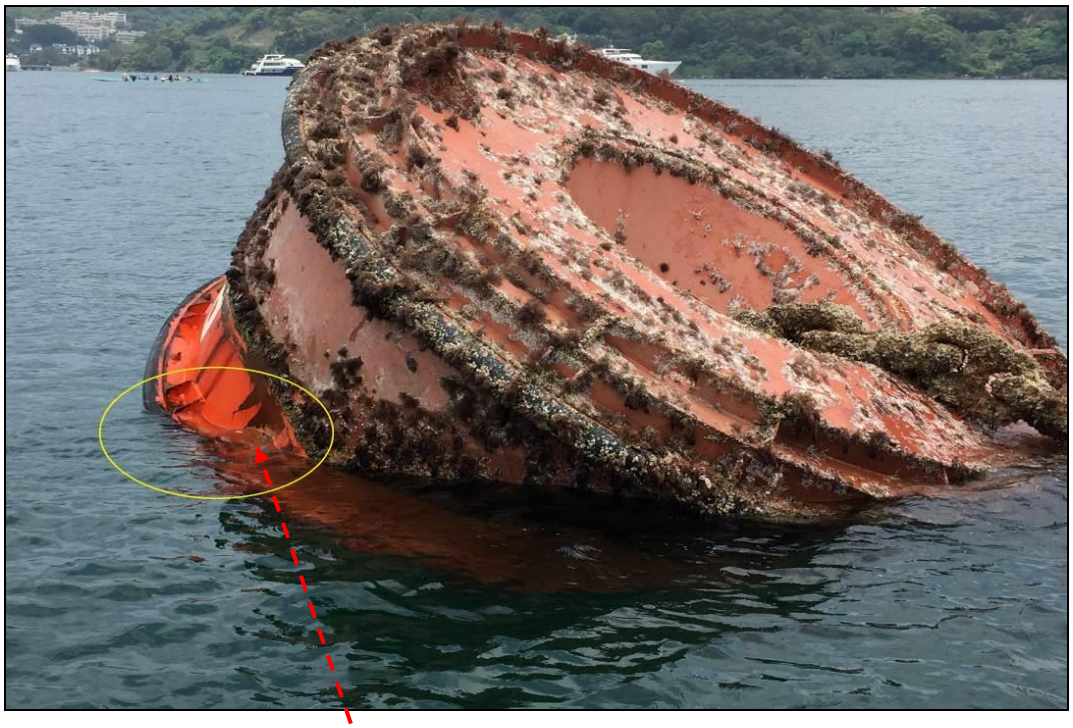

Fig. 11 – Fresh paint scratch and dent on the upside down mooring buoy (with marking of “PETWH-C”)

Fig. 12 – Fresh paint scratch and dent on the mooring buoy

6. Conclusion

6.1 At about 0200 on 26 April 2015, a locally licensed open cruiser *NAA-3797* (*the cruiser*) with a total of four persons on board including the coxswain departed from the Sai Kung (西貢) public pier for Tsam Chuk Wan (斬竹灣). While the *cruiser* passing the water in between Yeung Chau (羊洲) and Cham Tau Chau (枕頭洲), she hit a mooring buoy.

6.2 The coxswain and the crew of *the cruiser* were injured and became unconscious. *The cruiser* lost control and veered towards the north of Cham Tau Chau. Finally *the cruiser* went up and stranded on the beach at the northern part of the island in the approximately position of 22^0 22.81'N, 114^0 17.32'E at about 0210.

6.3 The crew woke up first and he called the police for assistance. The Marine Police launch arrived at the scene and took all the four injured persons to the hospital for medical treatment.

6.4 The bow and the port outboard engine of the cruiser were damaged.

6.5 Two passengers on board also got injured. Marine Police launch arrived at the scene later and took all the four injured persons to the hospital for medical treatment.

6.6 The investigation into the accident revealed that the main contributing factors as follows:

a) the coxswain of the cruiser did not proceed at a safe speed (Rule 6 of COLREG 1972) which caused the coxswain could not take proper and effective action to avoid the accident ; and

b) the coxswain also did not maintain a proper look-out (Rule 5 of COLREG 1972) by all available means, such as radar, to detect and keep well clear of any obstruction at sea during navigation; and

c) the coxswain did not follow the "Important Safety Instruction" of operation manual to wear the safety lanyard (the kill cord) while under way.

7. Recommendations

7.1 A copy of the investigation report should be sent to the owner and coxswain of *the cruiser* informing them the findings of the accident investigation.

7.2 The owner of *the cruiser* should instruct the coxswains of the vessel that during sailing, they should :

i) maintain a proper lookout by all available means;

ii) proceed at a safe speed; and

iii) follow strictly the "Important Safety Instruction" of operation manual to wear the safety lanyard (the kill cord) while under way.

7.3 Marine Department should strengthen the education on water sport safety, highlighting the usage of safety lanyard (kill cord) if fitted and the compliance of other important safety instructions of pleasure vessels. Promotional pamphlets should be considered to be distributed to publics to escalate publicity.

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 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 had been sent to the following parties for comments:

a) The passenger, crew, coxswain and the owner of *NAA-3797;*

b) The Harbour Patrol Section of Hong Kong Marine Department; *and*

c) The Seafarers' Certification Section of Hong Kong Marine Department.

8.3 Submissions had been received from the Harbour Patrol Section and Seafarers' Certification Section of Hong Kong Marine Department, the investigation report had been revised as appropriate.