

LOCAL VESSELS ADVISORY COMMITTEE

Improvement Measures to Enhance Safety of Local Vessels and Navigational Safety

Purpose

This paper is to discuss the measures to enhance the safety of local vessels and navigational safety subsequent to the fatal collision off Lamma Island.

Background

2. At about 2020 hours on 1 October 2012 off Shek Kok Tsui, northwest of Lamma Island, a Hong Kong & Kowloon Ferry Ltd. ferry “Sea Smooth” (海泰) carrying 4 crew and 95 passengers enrouting from Central to Yung Shue Wan, Lamma Island collided with a Hong Kong Electric Company Limited launch “Lamma IV” (南丫四號). The latter vessel carrying 127 persons including 3 crew members was leaving Lamma Island for Central. After the collision, the ferry “Sea Smooth” remained afloat while the launch “Lamma IV” sank quickly and rested almost vertically with its bow protruding above the water. The majority of persons on board “Lamma IV” fell into the sea and some were trapped inside the vessel.

3. The collision has subsequently resulted in the death of 39 passengers and 87 injuries among many other passengers. As a result of the large number of casualties, the public raised grave concern on the causes of the accident and also questioned the marine safety of Hong Kong.

4. While various government departments will undertake a series of investigations in accordance with the relevant statutory procedures and administrative guidelines, a Commission of Inquiry under the

Commissions of Inquiry Ordinance (Cap. 86) will be set up to inquire into the facts leading to the incident, ascertain the causes for the heavy casualties, consider and evaluate the general conditions of maritime safety concerning passenger vessels and the present system of control, and make appropriate recommendations to prevent recurrence of similar tragedies in future.

5. Given that it takes considerable time for various investigations and the inquiry to complete, there is an urgent need to explore any feasible improvement measures to enhance the safety of local vessels and navigational safety as soon as possible.

Identification of Safety Related Issues

6. With a view to enhancing maritime safety, Marine Department (MD) has tightened the spot-checking on the life saving appliances on board ferries, launches, kaitos and pleasure vessels let for hire.

7. As of 17 October 2012, the spot-checking covered 30 ferries and 141 launches, kaitos and pleasure vessels let for hire. Eighteen verbal warnings were given to vessel owners. These warnings were related to the following deficiencies and the owners have been advised to rectify the deficiencies for subsequent re-inspection by MD:

(i) Lifejackets

- found missing under the seats that are used for storage;
- placed in far reaching lockers;
- not easy to take out from the overhead storage rack or holding bags under the seats;
- stowed in a place without clear indication;
- adult lifejackets and child lifejackets placed in a mess;

(ii) Lifebuoys

- found tied up by strings on vessel sides;
- stowed in locker below deck

8. Besides conducting spot checks, MD has issued letters to 11 ferry operators and trade associations reminding owners of local vessels to comply with marine safety requirements and to ensure that vessels are

properly and adequately equipped with life-saving appliances. The issue of reminders to all other concerned operators or individual owners are continuing.

9. MD will also issue letters to the coxswains of ferry vessels reminding them of their obligation on maritime safety and the procedures to be followed in case of emergency and in particular, the serious consequence of unsafe navigation of vessels and the possible criminal liability.

10. The accident has also highlighted a number of safety related issues on ferries and launches requiring particular attention:

(a) Safety equipment and safety management

(i) Children lifejackets

According to the regulations, Class I vessels navigating within waters of Hong Kong, except the specified sheltered waters, are required to be provided with children lifejackets equal to 5% of the total number of persons on board. Whether this 5% can cope with the actual number of children carried on board is a cause of concern.

(ii) Windows

Windows are of glass construction but there is no means to break it for emergency escape from passenger compartments.

(iii) Safety briefing to passengers

Before commencement of any voyage carrying passengers, coxswains have not ensured all persons on board are briefed on the stowage and use of personal safety equipment and the procedures to be followed in case of emergency.

(iv) Crew working conditions

The conditions of employment of crew for local vessels are governed by the Employment Ordinance (Cap. 57). Crew are normally deployed to work on “one-day-on and one-day-off”

system. Whether such a duty system may cause crew fatigue when discharging navigational duty on vessels would need to be examined and be regulated if required.

(b) Safety awareness

(i) Safety Seminar

MD held safety seminars on 24 and 25 October 2012 with vessel operators, coxswains and crew to promote maritime safety and emergency response. Similar educational talks will also be extended to various regions in Hong Kong. There is no long term planning for conducting these seminars.

(ii) Emergency drill

All ferries and launches are required to carry out fire drill and abandon ship drill during the yearly periodical survey conducted by ship inspectors of Marine Department. Apart from this mandatory requirement, there is no guidance on the frequency which the vessels operators should provide training to the crew for conducting the emergency drills during routine operation of the vessels.

(iii) Reminders to operators and coxswain on maritime safety

MD has issued letters to owners of local passenger carrying vessels reminding them to comply with marine safety requirements and to ensure that their vessels are properly and adequately equipped with life-saving appliances. Similar letters to the coxswains of vessels reminding them of their obligation on maritime safety and dealing with emergency response will increase their safety awareness.

Improvement Measures to enhance maritime safety

Working Group for the safety of passenger carrying vessels

11. On 11 October 2012, MD set up a working group to study how to raise vessel safety standards, including the requirements for personnel and

safety equipment, in the future. The WG comprising MD and representatives of ferry and launch companies will explore measures to:

(a) Life saving appliances and other safety related issues:

- (i) improve the stowage and availability of lifejackets and lifebuoys;
- (ii) increase the provision of lifejackets for children;
- (iii) provide means to break window glass;
- (iv) conduct briefing on board and promote awareness of passengers on safety particularly the donning of lifejackets;

(b) Crew matters:

- (i) enhance the training of crew on safe navigation and on how to deal with emergency;
- (ii) improve the working conditions of crew employed on board local vessels particularly the working hours;

Issues to be explored

12. There are a number of issues which may help improve maritime safety in navigation and operation of vessels, which will be explored by the concerned Sub-committees and working group (paras. 12 – 21 refer) with conclusions to be drawn for reporting to this Committee by end of February 2013 for consideration :

(i) Certificate of Competency

To review and strengthen the existing syllabus and examination system for the certification of coxswains.

(ii) Crew working conditions

The conditions of employment of crew for local vessels are governed by the Employment Ordinance (Cap. 57). Crew are normally deployed to work on “one-day-on and one-day-off” system. A study will be carried out to examine the working hours of the coxswains and crew, to review their duty roster system and to see if regulation is required.

- (iii) Advisory guidance regarding traffic control and safety measures in firework display and other major events

The marine traffic control measures adopted in fireworks displays or major events in the harbour have been used since early 1990. The control measures in respect of the following areas are stipulated in Marine Department Notice (**Annex I**) issued before each major marine event:

- a. Restricted Area;
- b. Close Area;
- c. Arrangement of ferry services inside the restricted area;
- d. Notes on viewing area;
- e. Safety measures taken by all vessels;
- f. Closure arrangement of public piers and landing steps; and
- g. Setting up of buffer zones at public piers or landing steps.

The control measures are in the form of advisory guidance to operators, owners and coxswains of local vessels. For those not following the advisory guidance, they have no statutory liability. MD will explore ways to further strengthen the control measures in particular on speeding of vessels within the short period of time after the completion of the display or event, and study how the advisory guidance can be upgraded to mandatory requirements.

- (iv) Minimum Safe Manning

For Class I vessels including passenger ferries or high speed ferries operating in Hong Kong waters, the manning requirements depend on their operational needs and account should be taken of assessments dealing with fire and emergency drills. A review on the manning requirement in particular the adequacy of crew to handle emergency situations should be conducted. (whether an assistant coxswain is needed or not

should be left to the concerned Sub-Com to discuss)

(v) Promotion and education on maritime safety

A strategy would be formulated to promote the safety of passenger vessels including organising seminars for operating companies of launches, ferries and kaitos, and for representatives of the outlying islands on navigational safety, emergency response, and analysis of the causes of accidents in the past and the application of life-saving appliances; to publish pamphlets; and to produce Announcements of Public Interest to promote safety awareness.

(vi) Communication and collaboration with the industry

To improve maritime safety, ways to enhance communication and collaboration with the local vessel industry would be explored.

(vii) Video Camera

Capturing the record on the performance of the navigational team in the wheelhouse would enhance safety. A feasibility study on the installation of video camera in the wheelhouse would be carried out.

(viii) Automatic Identification System (AIS)

To further furnish local vessel coxswains with navigational equipment for determining risk of collision and taking avoidance action to prevent collision, the implementation of carriage requirement of AIS on board local vessels will be explored. It is proposed to study the applicability to any specific class and type of local vessels, class of AIS to be carried, practicality of deployment to local vessels, detection by Vessel Traffic Services (VTS) system of MD and within the capacity of VTS system, etc. Information on AIS is set out in **Annex II**.

13. In view of the above, it is proposed to put items (i) to (iii) as agenda items in a joint Sub-committee on Class I and Class IV vessels whilst items (iv) to (viii) will be discussed in Sub-committee on Survey Work of Local Vessels.

14. Depending on the outcome of the discussion in the Sub-committees above, MD will examine the most appropriate means, such as incorporating into the Code of Practice, issuing guidance with respect to specifications, standards or requirements by way of a Marine Department Notice (Section 84 of the Merchant Shipping (Local Vessels) (Safety and Survey) Regulation Cap. 548G), or through legislative amendment, to implement the proposed improvement measures to enhance maritime safety.

Other issues

Third Party Risks Insurance

15. Apart from the above proposed improvement measures, the issue of third party risks insurance coverage has also caused grave public concerns. There are views from various sources that the amount of statutory minimum liability under LVO is considerably low when compared with the requirement of insurance liability coverage of \$100 million for motor vehicles on land under the Motor Vehicles Insurance (Third Party Risks) Ordinance Cap. 272.

16. Recently, according to Section 23C of the Merchant Shipping (Local Vessels) Ordinance (LVO) Cap. 548, there is obligation on users of local vessel to be insured against third party risks.

17. The compulsory third party risks insurance (CTPRI) requirements apply to all local certificated vessels except any laid-up vessels with necessary permission or small non-mechanically propelled vessels less than 4 metres in length. The required coverage of the policy of insurance shall be:-

- (a) \$5 million for a vessel permitted to carry more than 12 passengers, other than a Class I primitive vessel (i.e. kaito) or a Class IV vessel not let for hire or reward.

- (b) \$1 million for a vessel permitted to carry 12 or less than 12 passengers, a Class I primitive vessel or a Class IV vessel not let for hire or reward.

18. The CTPRI requirement is the minimum statutory liability. It is not uncommon for owners and vessel operators to have in place a policy insurance with higher coverage amount than the statutory requirement to suit their operational need. The background of setting up the minimum coverage amount is at **Annex III**.

19. To increase the protection for vessel passengers, it is proposed to set up a working group (WG) under this Committee to review the CTPRI requirement for local vessels including the minimum liability levels of the insurance requirement.

20. In addition, the opportunity is also taken to explore the feasibility of introducing a Marine Accident Victims Assistance Fund similar to the Traffic Accident Victims Assistance Fund to provide speedy financial assistance to marine accident victims or dependents in case of death.

21. The proposed membership of the WG is set out in **Annex IV** which is similar to the one established in 1998 that includes representatives of local vessel operators, the Marine Insurance Association, the Protection and Indemnity Association, related organizations/associations, Transport Department and Marine Department.

Advice Sought

22. Members' views are sought on the proposals set out above.

Marine Department
October 2012

MARINE DEPARTMENT NOTICE NO. 131 OF 2012

(Navigational Warning & Related Information)

2012 National Day Fireworks Display

NOTICE IS HEREBY GIVEN that a Fireworks Display will take place in the Central Harbour, in an area off Wan Chai, at about 2100 hours on Monday, 1 October 2012 (“the event day”).

2. Fireworks will be displayed from three barges anchored in a straight line at the following positions (WGS 84 Datum):

	<u>Latitude</u>	<u>Longitude</u>
(a)	22° 17.279' N	114° 10.210' E
(b)	22° 17.279' N	114° 10.341' E
(c)	22° 17.279' N	114° 10.472' E

3. A Closed Area will be established around the barges between 1400 hours and about 2300 hours on the event day with the following details:

(i) The area is formed by four straight lines joining the following positions (WGS 84 Datum):

	<u>Latitude</u>	<u>Longitude</u>
(1)	22° 17.366' N	114° 10.109' E
(2)	22° 17.366' N	114° 10.574' E
(3)	22° 17.192' N	114° 10.574' E
(4)	22° 17.192' N	114° 10.109' E

(ii) From 1400 hours to about 2300 hours, the Closed Area will be closed to all marine traffic, except craft directly involved in the fireworks display, Government launches and vessels that have obtained special permission from the Director of Marine (to be collectively called *excepted vessels*).

4. A Restricted Area will be established in the Central Harbour from 2000 hours to about 2200 hours on the event day with the following details:

- (i) The eastern limit of the Restricted Area is a straight line joining the south extremity of MTR Hung Hom Freight Terminal Pier and the breakwater at Kellett Island, Royal Hong Kong Yacht Club. The western limit of the Restricted Area is a straight line joining the southwest extremity of the Ocean Terminal and the Central Government Pier.
 - (ii) From 2000 hours to about 2200 hours, no vessels, other than the excepted vessels, will be allowed to enter or remain within the Restricted Area.
5. A drawing of the Closed Area and Restricted Area is attached to this Notice.
6. Vessels intending to navigate in the Central Harbour after the fireworks display should pay special attention to the establishment of three Buffer Zones and the associated marine traffic control measures at Kowloon Public Pier, Kwun Tong Public Pier, Central Piers 9 and 10. Details of these measures are contained in the *Annex* to this Notice.
7. In the event of inclement weather, the display may be postponed to the fallback date of Tuesday, 2 October 2012, at about 2100 hours. And the control measures as aforementioned will remain unchanged.

Francis H. P. LIU
Director of Marine

Marine Department
Government of the HKSAR
Date: 14 September 2012
File Ref: L/M. No. 291/12 in PA/S/HPS/915/2(42)

**Annex to
Marine Department Notice No. 131 of 2012**

Marine Traffic Control Measures for the 2012 National Day Fireworks Display

Ferry Services

From about 2030 hours to about 2200 hours on Monday, 1 October 2012 (“the event day”), **ALL SCHEDULED FERRY SERVICES IN THE CENTRAL HARBOUR WILL BE SUSPENDED.**

2. ALL ferry vessels permitted to continue services between 2000 hours and 2030 hours on the event day must maintain a minimum safe passing distance of 250 metres from the firing barges. They should also be either secured to their berths or leave the Restricted Area before 2030 hours.
3. The Transport Department will detail the re-scheduling of ferry services in a separate notice.

Viewing Area

4. Excursion ferries and spectator vessels gathering on both sides of the Restricted Area are advised to keep clear of ferry piers and the Hong Kong and Macau Ferry Terminal. All vessels are advised to stem the tide during the fireworks display to avoid intruding into the Restricted Area.

Safety Measures by All Vessels

5. All vessels approaching the Restricted Area before or during the fireworks display and vessels leaving their viewing positions after the display must proceed at a safe speed, which should not generally exceed 5 knots. Every vessel must at all times maintain a proper lookout, and take measures to avoid obscuring the view of the lookout, including switching off the cabin lights. Searchlights must not be used because they will interfere with the keeping of a proper lookout on or with the safe operation of other vessels.
6. Masters, coxswains, owners and operators of all vessels are advised to take the following steps before the start of the voyage:

- (a) all persons on board are made aware of the location of all lifesaving appliances and instructed on the proper way to don a lifejacket;
- (b) all children on board are required to don a lifejackets at all times;
- (c) a passenger list containing the names of passengers and crew on board is kept by the master/coxswain for emergency purposes; and
- (d) the carrying capacity specified in the operating licence of the vessel is adhered to.

7. In the unfortunate event that a vessel requires immediate assistance, the master/coxswain of the vessel may:

- (a) signal for assistance using the distress signals set out in the Annex to the International Regulations for Preventing Collisions at Sea;
- (b) call the Vessel Traffic Centre, Marine Department (call-sign “MARDEP, HONG KONG”) on channel 14;
- (c) call the Marine Regional Command & Control Centre, Hong Kong Police Force (RCCC MAR) on telephone 2803 6240 or 2803 6241; or
- (d) call the emergency number 999.

8. Masters, coxswains, owners and operators of small vessels, especially those without a deck or those of less than 5 meters in length, are advised **NOT** to enter or remain in the Central Harbour area during the event. Such vessel are vulnerable in areas of high traffic density to the wash of larger vessels and are not easily detected by larger vessels, which have higher freeboard.

9. Launches of the Marine Department, Marine Police and Fire Services Department will be stationed in or patrolling the Central Harbour. They will exhibit either a flashing red or a flashing blue light. Masters and coxswains should follow any instructions given by these launches.

Closure of Public Piers and Landing Steps

10. For landside crowd control, all public piers and landing steps within the Restricted Area will be closed from 2000 hours to about 2200 hours on the event day.

11. Owing to high demand of landing facilities within the Restricted Area immediately after their reopening, some delay to the disembarkation of passengers is inevitable. For safety, masters or coxswains of vessels are advised not to leave their viewing positions hurriedly after the event; and consider using landing facilities outside the Central Harbour for disembarkation.

Buffer Zone

12. For safety of navigational and disembarkation of passengers, three Buffer Zones, one at Kowloon Public Pier (KPP), one at Kwun Tong Public Pier (KTPP) and the other at Central Pier 9 (CP 9) and 10 (CP 10), will be established immediately after the event until the traffic returns to normal. The Buffer Zones extend about 90 meters from the piers and are marked and regulated by Marine Department launches. Vessels intending to use KPP, KTPP, CP 9 or CP 10 are required to wait at the designated gathering area prior to getting alongside and follow the direction of Marine Department or Marine Police officers. Vessels using KPP or KTPP will only be permitted to enter the Buffer Zone from the east and leave from the west. To expedite disembarkation, masters and coxswains are advised to remind passengers to check their personal belongings early.

海事處佈告 2012 年 第 131 號附圖

Drawing Attached to Marine Department Notice No. 131 of 2012



不宜作航行用途

NOT TO BE USED FOR NAVIGATION

Automatic Identification System (AIS)

AIS is an internationally recognized navigational equipment required to be carried on board vessels under the International Convention for the Safety of Life at Sea (SOLAS), as adopted by the International Maritime Organization (IMO) in 2000.

2. AIS provides ship's information (including the ship's identity, type, position, course, speed, navigational status and other safety-related information) automatically to appropriately equipped shore stations, other ships and aircraft, and is at the same time able to recognize other similar fitted vessels in the vicinity.

3. In brief, AIS could be used for:-

- i) Collision Avoidance – the device can help the master determine risk of collision with other vessels by providing information of nearby ships, in particular the identification of small size local vessels that are difficult to be detected by marine radar.
- ii) Accident Investigation – AIS information received by Vessel Traffic Services (VTS) system is very useful to accident investigation as it provides the time, identity, GPS position, heading, course, and speed of vessels. The AIS information, together with VTS radar image can be used to re-construct a marine incident with high degree of accuracy.
- iii) Search and Rescue – AIS can provide accurate position of the ship in need of help that enables the rescue team to reach the ship at the earliest time.
- iv) Fleet management – By using AIS technology, fleet management applications have been derived by commercial companies.
- v) Vessel Traffic Services: AIS provides additional information to VTS system that enables automated vessel identification and helps improve the stability of VTS radar tracking, in particular in shadowed areas of VTS radars.

Compulsory Third Party Risks Insurance

Before the enactment of the LVO, only pleasure vessels, launches and ferry vessels, which are mechanically propelled, are required to take out third party risks insurance relating to bodily injury and death. The minimum liability levels of \$0.6 million for pleasure vessels and \$3 million for launches and ferry vessels were set in 1979 and 1990 respectively.

2. In 1998, the Provisional Local Vessels Advisory Committee (PLVAC) set up a working group comprising representatives of local operators, the Marine Insurance Association, the Protection and Indemnity Association, Transport Department and Marine Department to review the scope and minimum liability levels of the insurance requirement. The working group conducted an in-depth review and proposed that the CTPRI should be extended to cover all local vessels including river-trade vessels coming from Mainland and Macau; and the minimum liability levels should be set at \$5 million for local vessels carrying not more than 12 passengers, and \$10 million for local vessels carrying more than 12 passengers.

3. These recommendations had been supported by the Legislative Council Panel on Economic Services (ES Panel) in 2003. However, the Panel was concerned about the added financial burden on vessel owners and operators, particularly on those primitive vessels (i.e. kaitos) in remote or sheltered waters. Having considered the views of the Panel, the Administration therefore tuned down the amount of insurance coverage from \$10 million to \$5 million for local vessels carrying more than 12 passengers other than a primitive vessel or a Class IV vessel not let for hire or reward, and from \$5 million to \$1 million for local vessels carrying 12 or less than 12 passengers, or a primitive vessel or a Class IV vessel not let for hire or reward. Besides, laid-up vessels and small non-mechanically propelled vessels (up to 4 metres in length) will be excluded from the requirements, because they are not likely to cause injury to third party on any other vessels. The revised proposal was then supported by the Panel.

4. Unlike licensed local vessels, the CTPRI of river-trade vessels coming from Mainland or Macau (RTVs) cannot be implemented by the licensing system similar to that of local vessels. Instead, the insurance requirements for RTVs will be enforced under the Merchant Shipping (Local Vessels) (General) Regulation at the point of entry of these vessels.

5. Thereafter, the Merchant Shipping (Local Vessels and Miscellaneous Amendments) Bill 2005 including the CTPRIR went through third reading and was passed by LegCo on 30 November 2005. It was then gazetted on 9 December 2005.

6. The LVO came into operation on 2 January 2007 whilst the CTPRI requirement was duly extended to cover all local vessels on 2 July 2007.

**Proposed Membership of the Working Group
on Third Party Risk Insurance**

Chairman: General Manager/Operations, Marine Department

Members:

Representative of the Hong Kong Federation of Insurers

Representative of the Shipowner's Mutual P&I Association
(Luxembourg)

Representative of Hong Kong Cargo-Vessel Traders' Association Ltd

Representative of Hong Kong and Kowloon Motor Boats and Tug Boats
Association Ltd

Representative of Hong Kong Mid-stream Operators Association Ltd

Representative of Marine Excursion Association

Representative of Marine Fuels Distributors' Association

Representative of Hong Kong Fishermen Consortium

Representative of Discovery Bay Transportation Services Ltd

Representative of Hong Kong Ferry (Holdings) Co Ltd

Representative of Hong Kong & Kowloon Ferry Holdings Ltd

Representative of New World First Ferry Services Ltd

Representative of Park Island Transport Co Ltd

Representative of Star Ferry Co Ltd

Representative of Guangdong Shipowners' Association

Representative of Guangdong and Hong Kong Feeder Association Ltd

Representative of Royal Hong Kong Yacht Club

Representative of Transport Department

Representative of Marine Department

Ad-hoc members:

Representative of Commissioner of Insurance

Representative of Social Welfare Department

Secretary: Executive Officer, Marine Department