

**For discussion
on 13 May 2014**

**Legislative Council Panel on Security
Replacement of 18 Police Launches**

Purpose

This paper consults the Panel on a proposal by the Hong Kong Police Force (HKPF) to replace 18 police launches, including one Regional Training Launch, six Australian Shipbuilding Industries Divisional Patrol Launches (ASI launches) and 11 ‘SeaSpray’ launches, which having served for many years are now in need of an update which cannot be provided other than through replacement. The proposed replacement is necessary for maintaining an effective maritime law enforcement capability and responding to major maritime incidents, including potential security threats.

Background

2. Subject to their material of construction and condition assessment from the Director of Marine, Government craft have a usual serviceable lifespan ranging from 8 to 20 years. The expected lifespan of craft with steel hulls, such as the Regional Training Launch and ASI launches is 20 years, while that for craft with aluminium hulls, such as the ‘SeaSpray’ launches, is 15 years.

Regional Training Launch

3. The Regional Training Launch (Police Launch (PL) 3) proposed to be replaced is a steel hull vessel that has been in service for over 26 years. PL 3 was constructed as an offshore maritime search and rescue (SAR) launch with a divisional command capability. However, PL 3 has limited capability as a major incident command platform as its extended offshore SAR role required much of the available space onboard to be taken up by crew accommodation and SAR related features. Hence, in 2002 the divisional command function of PL 3 was handed over to ASI patrol launches and since then, PL 3 has been mainly used for training purposes. To strengthen the operational capability, the Marine Police needs an effective ‘on-scene’ command platform for major maritime incidents.

ASI launches

4. The ASI launches are key patrol craft in the Marine Police fleet responsible for protecting the more exposed waters of Hong Kong, and providing additional radar coverage in areas not covered by shore based radar sites. The present fleet of six steel hull ASI launches (PLs 51-56), which were built between 1991 and 1993, have been in service for over 21 years. An 'Operations Room' was included in the design of these vessels so as to enable them to undertake a limited Divisional coordination role. The facilities of the current ASI launches are limited and ageing. While these launches are still operational and able to perform the role they were originally designed for, their lack of modern equipment and difficulties in being adapted to keep up with the evolving role of the Marine Police, is gradually lowering their service efficiency. The maintenance cost of the ASI launches is increasing. In order to maintain operational effectiveness and provide the appropriate level of maritime policing and response to maritime incidents, it is deemed prudent to now commence their replacement.

'SeaSpray' launches

5. The main responsibilities of 'SeaSpray' launches include conducting maritime law enforcement, providing policing support to gazetted beaches, typhoon shelters, sheltered anchorages, outlying islands and remote areas, etc. The 11 aluminium hull 'SeaSpray' launches (PLs 22, 24, 26-29, 31, 46-49) proposed for replacement, which were delivered to the Marine Police between 1992 and 1993, have been in service for over 21 years. Among these 11 'SeaSpray' launches, seven launches are smaller 9.9-metre craft tasked for inshore patrol, and the remaining four are larger 11.4-metre launches which provide logistical support in addition to inshore patrol. While these launches, like the ASI patrol launches, are still operational and able to perform the role they were originally designed for, their service efficiency is gradually decreasing due to the lack of modern equipment and difficulties in being adapted to keep up with the evolving role of the Marine Police. The maintenance cost of 'Seaspray' launches is increasing. In line with the ASI launches, it is important to commence their replacement in order to maintain maritime policing standards.

6. Condition assessments carried out on all of the above launches by the Director of Marine confirm that while the launches could remain in service for the coming few years, replacement procedure should now commence. Taking into account the long lead time required for completing the procurement, including tendering, construction, delivery, and arranging for commencement of service, etc., it is necessary for the HKPF to begin the

replacement process to ensure that the Marine Police are sufficiently equipped to carry out their maritime law enforcement responsibilities and maintain continuous operational capability.

Proposal for Replacement

7. The proposal involves –

- (a) the replacement of the Regional Training Launch (PL 3) by a Mobile Response and Command Platform (MRCP)

MRCP is a purpose-built launch designed to be used as a command platform for major maritime incidents, including serious crime, terrorist-related threats and disaster relief. The introduction of MRCP will strengthen the command capability of the Marine Police to effectively handle on-scene command of major maritime incidents on a round-the-clock basis. It will also enhance the Marine Police's capability in conducting protracted shallow water operations and small craft operations in remote areas. When not required for on-scene command functions or to support frontline operations, the MRCP will serve as the Regional Training Launch and fulfil the present role carried out by PL 3.

The improved functionalities of the new MRCP are summarized as follows:

- (i) The MRCP will be equipped with a variety of smaller support vessels designed to enhance the ability of the MRCP to handle incidents in shallow waters and beach/foreshore areas where traditional police craft cannot operate;
- (ii) The increased top speed of the MRCP (up from 14 to 25 knots) will enable the launch and the small support vessels carried aboard to arrive on-scene and take up its major incident management role significantly earlier than the present PL 3;
- (iii) The catamaran/multi-hull design provides a more stable working environment and much greater space for the necessary advanced communications equipment, command suites and briefing/staging areas for specialist

units. It will also provide improved deck space for enhanced small vessel operations and on-scene initial handling of injured and/or affected persons, etc. in a safe and secure environment;

- (iv) The MRCP will be equipped with advanced thermal imaging, radar and navigation equipment enabling incident commanders to make more informed and timely decisions based upon real time information. The incorporation of modern control and navigation equipment will provide greatly improved operational capabilities without the need for increased crew numbers. Live video and data feeds will be relayed to shore facilities for use by central commanders; and
 - (v) The MRCP will be equipped with in-built ballistic protection for the bridge, command suites and vulnerable areas.
- (b) the replacement of six ASI launches (PLs 51 – 56) by six Versatile Patrol Units (VPUs) on an enhanced like-for-like basis

VPUs are responsible for patrol duties in designated patrol areas where the nature of the open sea conditions and the distance from its home base restrain the safe operation of smaller patrol craft of HKPF. The proposed VPUs will be advanced monohull design fitted with modern detection and navigation equipment, and carry two small support vessels for shallow water operations and suitable equipment and facilities which allow the VPU to conduct rough sea operations without immediate support and for extended periods.

VPU is a fuel efficient and effective type of major patrol vessel and equipped with modern propulsion systems and therefore it is more reliable than the present ASI launches. With the introduction of active stabilization, VPU will reduce fatigue-inducing movement which allows extended safe operations for the crews. The VPU would also enhance Marine Police's capability in maintaining maritime security and shallow water/beach landing operations.

The enhancements in the VPU design include:

- (i) improved rough weather patrol capability through the use of advanced hull shape which enables the craft to remain on station and operational in rougher weather;
 - (ii) improved thermal imaging, night vision, radar and communications technology to improve detection, response and interdiction capabilities;
 - (iii) provision of updated firefighting equipment which enable a more effective initial response to vessel fires;
 - (iv) incorporation of launch management systems to enable more effective divisional asset deployment and oversight; and
 - (v) ballistic protection for the bridge and operations areas.
- (c) the replacement of 11 'SeaSpray' launches (PLs 22, 24, 26 - 29, 31, 46 - 49) by 11 Hydrofoil Assisted Catamarans (HACs) on an enhanced like-for-like basis

The main day-to-day function of the proposed HACs will be patrolling and policing inshore areas, such as typhoon shelters, sheltered anchorages, cargo/container basins, gazetted beaches, where the larger ASI launches/VPU cannot navigate. The HACs will also be able to handle casualty evacuations and rescue operations in areas where larger launches cannot access. With a higher speed, improved shallow water performance and night vision capability, the HACs will enhance and maintain effective coverage of shallow inshore coastal areas within Hong Kong waters which would boost the operational effectiveness of Marine Police.

The enhancements in the HAC design include:

- (i) higher speed, reduced fuel consumption and associated emissions through the adoption of modern propulsion systems and hydrofoil design;
- (ii) improved shallow water and beach landing capability through the carriage of an inflatable small support vessel;

- (iii) improved thermal imaging, night vision, radar and communications technology to improve detection, response & interdiction capabilities;
- (iv) improved casualty handling facilities to assist in disaster response and casualty evacuation tasks; and
- (v) improved manoevrability to assist in safe navigation in congested waters such as inside typhoon shelters, anchorages, container/cargo basins.

Benefits of the Replacement Proposal

8. Maintaining a robust maritime law enforcement capability, and keeping local waters free from the threat of terrorism and crime, is considered essential for Hong Kong to retain and strengthen its position as an international entrepôt, especially for promoting maritime trade. Hong Kong is one of the busiest ports in the world with over 190 000 vessel arrivals reported in 2012. In the same year, a total container throughput of 23.117 million twenty-foot equivalent units was recorded, making Hong Kong the world's third largest container port.¹ With the commissioning of the Kai Tak cruise terminal in 2013, Hong Kong has aspired to become a regional transport hub for cruise liners.

9. All the three proposed classes of vessels will benefit from advances in technology and provide safer, more fuel efficient, greener and more effective craft to assist HKPF in performing its assigned duties and maintaining maritime safety in a professional manner. Over and above these general improvements, specific equipment, features and capabilities have been included in the designs to address areas identified for enhancement, to allow faster arrival on scene and a more effective first response once at scene. The provision of ballistic protection for the craft, modernization of night vision, target radar and thermal detection equipment and improved capability in shallow water operation will allow HKPF to enhance its proficiency in detecting and responding to suspicious craft at sea - in both daylight and dark conditions, provide a more robust enforcement capability thereby deterring criminal activity and the threat of terrorist incidents in Hong Kong waters. Such capability is important in retaining the confidence of the shipping and cruise industries in Hong Kong's ability to maintain a safe maritime environment and deal with an International Ship and Port Facility Security Code related incident.

¹ Port of Hong Kong in Figures (2013 Edition) – Marine Department publication.

Financial Implications

Non-recurrent Cost

10. HKPF estimates that the replacement of 18 vessels will incur a total non-recurrent cost of \$658,410,000 broken down as follows:-

	\$ '000
(a) One MRCP	94,650
(b) Six VPUs	448,860 (74,810 per VPU)
(c) 11 HACs	114,900 (about 10,445 per HAC)
Total:	658,410

11. The estimated cash flow requirement is as follows:-

<u>Year</u>	<u>\$'000</u>
2014 – 15	300
2015 – 16	8,800
2016 – 17	5,000
2017 – 18	68,500
2018 – 19	303,000
2019 – 20	270,810
2020 – 21	<u>2,000</u>
Total:	658,410

Recurrent Cost

12. HKPF estimates that the recurrent cost of the 18 new vessels will be \$103,746,000 per annum from 2020/21 onwards. This will be partially offset by annual savings of \$58,761,000 from the recurrent cost of the 18 existing launches. The additional recurrent cost of \$44,985,000 is due to the higher annual maintenance and repair cost of the more sophisticated equipment and machinery of these new vessels. The requirements of recurrent expenditure will be reflected in the Estimates of the relevant years.

Implementation Plan

13. Subject to Members' views on the proposal, HKPF plans to seek funding approval from the Finance Committee of the Legislative Council in June 2014. If funding approval is obtained, we expect to implement the replacement project according to the following timetable:-

<u>Item</u>	<u>Activities</u>	<u>Expected Completion Date</u>
(a)	Procurement of small support vessels ²	
	● Preparation of tender document	December 2014
	● Tender evaluation and Award	March 2015
	● Construction	October 2015
	● Inspection and Delivery	January 2016
	Main launches ³ procurement	
(b)	Preparation of consultancy document for the procurement of launches	November 2015
(c)	Consultant Selection	June 2016
(d)	Preparation of tender documents	November 2016
(e)	Tendering, evaluation and approval	August 2017
(f)	Award of tender	September 2017
(g)	Design and Construction,	August 2019

² These refer to the small support vessels of the MRCP, the VPUs and the HACs.

³ These refer to the MRCP, the six VPUs and 11 HACs.

<u>Item</u>	<u>Activities</u>	<u>Expected Completion Date</u>
(h)	Inspection and delivery	September 2019
(i)	Training and commissioning	December 2019

Advice Sought

14. Members are invited to offer views on the proposal.

**Security Bureau
Hong Kong Police Force
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