For discussion
on 16 December 2013

Legislative Council Panel on Economic Development
Replacement of Four Patrol Launches of the Marine Department

Purpose

This paper consults Members on a proposal to replace four patrol launches operated by the Marine Department (MD) to enable MD to effectively discharge its duties in marine traffic control and enforcement of marine regulations in Hong Kong waters.

Background

2. The Harbour Patrol Section of MD operates a fleet of twenty five patrol launches. These launches are assigned to patrol different water areas of Hong Kong on a daily basis to monitor and regulate marine traffic, carry out law enforcement duties including conducting random inspection of vessels, and to respond to marine incidents.

3. Four of these launches, namely "Marine 1", "Marine 2", "Marine 7" and "Marine 23" have been in service for 18 years since 1995. The Government Fleet Division (GFD) of MD, which is responsible for the regular maintenance and condition assessment of these launches, advised that the launches were approaching the end of their serviceable life. In view of the high maintenance costs and the expected increase in downtime for launches of such age, MD considers it more cost-effective to replace the four launches. Taking into account the lead time required for completing the procurement, including tendering, construction, sea trial and delivery, etc, it is necessary for MD to commence the process for replacement now so as to ensure continuous operational capability.

Proposal for Replacement

4. Given the heavy marine traffic for both passengers and cargo in Hong Kong waters with over 190 000 vessel arrivals in 2012[1], it is essential for MD to replace the four patrol launches in order to maintain effective patrolling services, and to ensure safe and orderly operation of the Port.

5. There will be a number of improvements in the design and fittings of the proposed replacement launches as set out below –

(a) Compared to the existing launches which measure 13.7m (length) x 4.2m (breath) x 1.13m (draught), there will be a slight increase in the size of the new launches to about 16m (length) x 4.5m (breath) x 1.7m (draught). The design speed will be maintained at 20 knots. Their larger size and their operation at the design speed of 20 knots[2] will enable a more stable working environment on board in exposed sea areas and speedier arrival on the scene of marine incidents.

(b) The new launches will be fitted with up-to-date equipment for navigation, communication and performance of patrol duties, including Automatic Identification System (AIS), digital radar, echo sounder, powerful search light, loudhailers, etc. These will enable more efficient and effective provision of patrol services to the maritime communities.

(c) Additional facilities will be installed. These include a second generator to ensure adequate backup of electrical power for 24 hours operation, larger water and fuel tank capacities to enable longer voyages, and a multi-tray cabinet and other fittings ready for the use of computers and electronic devices to provide better working environment close to a mobile office which will facilitate conduct of administrative and operational work by the duty officer and crew on board.

[1] The figure includes arrivals of ocean-going vessels, river trade vessels, and cross-boundary ferries.
[2] The existing launches are currently operating below 20 knots due to aging.

(d) The new launches will adopt environmental friendly measures including the installation of diesel engines in compliance with the latest emission control standards and the use of solar panel lighting system to reduce fuel consumption by generators for electrical appliances.

Benefits of the Proposal

6. With improved design and enhanced equipment, the replacement launches can operate for a longer duration without the need of frequent replenishments at base or fuel stations, and can thus provide uninterrupted service over a larger patrol area. The replacement launches are also more environmentally friendly with its new installations which incorporate emission reduction and energy saving design. Overall, the replacement launches can provide better support to MD in performing its daily regulatory duties.

Financial Implications

Non-recurrent Expenditure

7. MD estimates the cost of the proposed replacement of the four patrol launches to be $46,400,000, with the breakdown as follows –

		$'000
(a)	Design and construction, with associated machinery and equipment such as main engines, generators, anchor, etc.	30,400
(b)	Electronic navigational aids and communications systems such as radar, compass, Global Positioning System, Very High Frequency, AIS.	2,400
(c)	Solar power system	1,000
(d)	Spare parts to keep the patrol launches in a good state of operational preparedness	4,800

(e)	Project management charges for tender preparation, evaluation, etc.	4,000
(f)	Contingency [10% of items (a) to (d) rounded up]	3,800
	Total:	**46,400**

8. The estimated cash flow requirement is as follows –

Year	**$'000**
2014 -15	1,200
2015 -16	22,400
2016 -17	22,800
Total:	**46,400**

Recurrent Expenditure

9. MD estimates that the recurrent expenditure of the four patrol launches will be about $7,900,000 per annum from 2018-19 onwards[3]. This will partially be offset by the annual savings of $4,300,000 from the current recurrent expenditure of the four decommissioned launches. The additional recurrent expenditure of $3,600,000 is due to the annual routine maintenance cost of the more powerful engines, an additional generator and other more advanced equipment / machinery of the new launches, and higher fuel consumption.

Implementation Plan

10. We plan to implement the replacement project according to the following timeframe –

[3] Due to the one-year warranty which covers the maintenance of the new launches in 2017-18, the recurrent expenditure in 2017-18 is only slightly above that of the existing launches by around $13,000 owing to the higher fuel cost.

Item	Activities	Timing
(I) Outsourcing Project Management for Vessel Construction		
(a)	Preparation of tender documents for consultancy services	May 2014 – July 2014
(b)	Tendering, evaluation and award of consultancy contract	August 2014 – February 2015
(II) Vessel Construction and Delivery		
(c)	Preparation of tender documents	March 2015 – April 2015
(d)	Tendering invitation	May 2015 – July 2015
(e)	Tender evaluation and award of contract	August 2015 – January 2016
(f)	Construction, inspection and commissioning	February 2016 – March 2017

Advice Sought

11. Members are invited to offer views on the proposal. Subject to Members' views on the proposal, we would seek funding approval from the Finance Committee of the Legislative Council in early 2014.

Transport and Housing Bureau
Marine Department
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