

For discussion
on 13 May 2014

Legislative Council Panel on Security

Replacement of a Crash Fire Tender for the Airport Fire Contingent

Purpose

This paper consults the Panel on the proposal of the Fire Services Department (FSD) to procure a new Crash Fire Tender (CFT) to replace one (fleet number R12) of the CFTs currently deployed at the Main Airport Fire Station.

Background

The Airport Fire Contingent

2. The Airport Fire Contingent (AFC) is responsible for performing fire-fighting and emergency rescue operations as well as providing emergency ambulance services in cases of aircraft accidents at the Hong Kong International Airport and its surrounding areas and waters. To fulfill the international standards, FSD's rescue and fire-fighting vehicles are required to reach each end of the runways within two minutes and arrive at any aircraft movement area in the airport within three minutes. There are two airport fire stations. The Main Airport Fire Station is located at the South Runway and the Sub Airport Fire Station is located near the North Runway. In addition, there are two rescue boat berths in the airport located at the eastern and western ends of the runways respectively. There are two Rapid Intervention Vehicles, two CFTs, two Hose Foam Carriers, one Jackless Snorkel and one ambulance in each airport fire station and four rescue vessels at each rescue boat berth.

The Existing CFT R12

3. The CFT is a special vehicle of the AFC, with a normal serviceable life of eight years. The CFT R12 proposed to be replaced was commissioned in 2006 and is currently deployed at the Main Airport Fire Station¹. Its main function is, even in poor weather and road conditions, to operate efficiently and reach the scene of accident speedily when an aircraft accident occurs².

¹ The other three CFTs at the two airport fire stations were commissioned in 2008, 2011 and 2012 respectively. All three of them are still within their normal serviceable life.

² With four axles and eight wheels, the CFT can accelerate to 80 km per hour within seconds to reach the scene speedily.

Furthermore, the CFT is able to apply uninterrupted foam while in motion to protect the passenger evacuation path and prevent the spread of fire.

Justifications for the Proposed Replacement

4. FSD proposes to replace the existing CFT R12 on the following grounds:

(a) Expiry of normal serviceable life

The Electrical and Mechanical Services Department (EMSD) advises that the normal serviceable life of a CFT is eight years. If a CFT continues to be used for a long period of time after the end of its normal serviceable life, the deteriorating functions may affect frontline fire-fighting/rescue operations. The CFT R12 proposed to be replaced has been in use for over seven years³ since 2006. Considering that it takes about two years to complete the preparatory work, such as tendering, construction, delivery and arranging for commencement of service, it is necessary for FSD to commence the replacement work at this stage so as to ensure its operational capability.

(b) Frequent repair and increase of maintenance cost

The major parts of the CFT R12 such as engine, gearbox and electronic control device are ageing. It is necessary to carry out repair and maintenance more frequently to keep them in good operating conditions. The maintenance cost of the CFT R12 in 2013-14 was about \$290,000, which was 61% higher than the average annual maintenance cost of \$180,000 at the time of its initial operation. In the long term, it is anticipated that the maintenance cost of the CFT R12 will continue to increase, and thus it is not cost-effective.

The CFT Proposed to be Procured

5. In view of the above problems, FSD proposes to procure a new CFT as replacement. The specifications and installations of the new vehicle will be largely the same as those of the existing CFT R12 and will be able to meet the international standards. Also, a more environmental-friendly Euro V engine will be used. The major specifications and installations of the new CFT are as follows:

³ According to the inspections and assessments made by EMSD on CFT R12 in 2013, it is estimated that the vehicle could remain in service until the commissioning of the new CFT.

- (a) equipped with a water tank and a foam tank with capacity of not less than 14 300 litres and 1 700 litres respectively;
- (b) equipped with a powerful roof foam jet with an effective range of over 90 metres and foam generation of not less than 7 000 litres per minute, giving the vehicle the capability to handle fire-fighting duties involving large aircrafts including Airbus A380;
- (c) a dedicated engine for operating the fire pump, which can apply uninterrupted foam even when the CFT is in motion at a speed up to 80 km per hour, enabling the vehicle to make speedier intervention and perform rescue function at the fire scene; and
- (d) equipped with a 4-axle all-wheel-drive system, allowing for greater manoeuvrability in adverse weather conditions and rough terrain.

Financial Implications

6. According to FSD, the total non-recurrent cost of procuring the new CFT is estimated to be \$15,000,000. The detailed breakdown is as follows –

	Item	\$'000
(a)	Basic vehicle and the fire-fighting equipment required on board	12,500
(b)	Payment to Electrical and Mechanical Services Trading Fund (EMSTF) for project management and acceptance test	1,250
(c)	Contingency	1,250
	Total:	15,000

It is estimated that the required expenditures for 2014-15, 2015-16 and 2016-17 are \$563,000, \$6,187,000 and \$8,250,000 respectively.

7. FSD estimates that at the time of its initial operation, the annual recurrent cost of the new CFT will be about \$210,000 (including maintenance cost of \$180,000 and fuel cost of \$30,000). The proposal will not result in additional recurrent cost. As FSD will deploy existing manpower to operate the new CFT, there is no need for additional manpower.

Implementation Timetable

8. Subject to Members' comments on the above proposal, we plan to seek funding approval from the Finance Committee of the Legislative Council in June 2014. If funding approval is granted, we expect that the implementation timetable would be as follows:

Item	Target Completion Date
(a) Preparation of tender specifications	July 2014
(b) Invitation of tenders	October 2014
(c) Evaluation of tenders and award of contract	March 2015
(d) Testing and acceptance of the vehicle	May 2016
(e) Training and commissioning of the vehicle	June 2016

9. Prior to the commissioning of the new vehicle, EMSD will perform more frequent inspections and maintenance as appropriate for the existing CFT R12 to maintain its service level.

Advice Sought

10. Members are invited to comment on the above proposal.

Security Bureau

Fire Services Department

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