For discussion
on 4 May 2010

Legislative Council Panel on Security

Replacement of a Crash Fire Tender in the Airport Fire Contingent

Purpose

This paper seeks Members' support for our proposal to procure a new Crash Fire Tender (CFT) to replace the existing CFT R42 in the Airport Fire Contingent (AFC) of the Fire Services Department (FSD).

Background

The Airport Fire Contingent

2. The AFC is responsible for fire fighting and emergency rescue in aircraft accidents at the Hong Kong International Airport and its surrounding waters and area. To fulfill international standards, rescue and fire fighting vehicles of FSD are required to reach every end of the runways within 2 minutes and arrive at any aircraft movement area in the airport within 3 minutes. The AFC's entire airport rescue and fire fighting (ARFF) fleet comprises 14 fire fighting vehicles, two ambulances and eight rescue vessels located at strategic positions surrounding the apron and runway.

3. Currently, the 14 fire fighting vehicles of the AFC are deployed at two fire stations, namely the Main Airport Fire Station near the midfield of South Runway and the Sub Airport Fire Station near the midfield of North Runway. Each fire station is equipped with an identical fleet of fire fighting vehicles, which includes two Rapid Intervention Vehicles, two CFTs, two Hose Foam Carriers and one Jackless Snorkel.

4. In case of an aircraft accident, the ARFF vehicles from both airport fire stations will respond in the first instance. If necessary, support fire appliances and ambulances will be deployed from nearby fire stations and ambulance depots outside the airport control area.

The existing Crash Fire Tender, R42

5. Commissioned since the opening of the Hong Kong International Airport in 1998, the existing CFT R42 is deployed at the Sub Airport Fire Station. Its main function is to reach the site of aircraft accident speedily and apply uninterrupted foam for protection of the passenger evacuation path. For instances, in August 1999 when a passenger plane with 315 persons on board made a hard landing in stormy weather and caught fire, CFT R42 was one of the first fire fighting vehicles that arrived swiftly at the scene and was instrumental to the successful evacuation of all passengers from the wreckage. In addition, in April 2010 when a passenger plane with 323 persons on board made an emergency landing and sparked a fire at the undercarriage, CFT R42 also performed its function and swiftly arrived at the scene to protect passengers for evacuation.

Justification for the Proposed Replacement

6. The Electrical and Mechanical Services Department (EMSD) advises that the life expectancy of the model to which the existing CFT R42 belongs is about eight years and through regular maintenance, the use of CFT R42 may be prolonged. The existing CFT stationed at the airport has been commissioned for over 10 years. According to its maintenance record and the existing condition, the vehicle is expected to maintain satisfactory availability rate in the coming two years or so. However, since the manufacturer has already ceased the production of this model, the FSD has started to have difficulties in finding compatible spare parts in the market. As it is necessary to ensure that the AFC will always be capable of handling emergency situations, we need to plan ahead for procurement of a new CFT to replace the existing one in 2011 before the latter may become inoperative due to maintenance difficulties. To better protect the environment, the new CFT R42 will have a more environmental friendly Euro-III type engines. The functions of the new CFT R42 will be largely the same as those of the existing CFT and is on par with international standard. Their main functions are as follows -

(a) equipped with a powerful foam jet with an effective range of over 90 metres, giving the vehicle the capability to handle fire-fighting duties involving large aircrafts including the new Airbus A380;

(b) 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

(c) 8 x 8 wheel-drive allowing for greater manoeuvrability in poor weather conditions and rough terrain effectively.

Financial Implications

Non-recurrent Expenditure

7. The estimated non-recurrent cost of procuring a new CFT R42 installed with the necessary on-board fire fighting and communication equipment is $17.4 million, with a detailed breakdown as follows –

		$ (million)
(a)	Basic vehicle	14.000
(b)	Fire fighting and communication equipment on board the CFT[1]	0.500
(c)	Payment to Electrical and Mechanical Services Trading Fund for project management and acceptance testing	1.450
(d)	Contingency (10% of items (a) and (b) above)	1.450
	Total :	**17.400**

[1] Only for the replacement of equipment that have reached their serviceable lives. Other equipment will be transferred from the existing vehicle to the new one.

8. The estimated cash flow is as follows –

Year	$ (million)
2010-2011	5.60
2011-2012	11.80
Total :	**17.40**

Recurrent Expenditure

9. The recurrent expenditure of the existing CFT on maintenance and fuel was $0.21 million and $30,000 respectively in 2009. The proposed replacement will not give rise to any additional recurrent expenditure. FSD will deploy the existing staff to man the replacement vehicle and no additional staff will be required.

Implementation Plan

10. We are now designing and preparing the tender specification, and plan to seek funding approval from the Finance Committee (FC) in June 2010. Subject to FC's approval, we can embark upon the tendering in July 2010. The relevant implementation plan is as follows –

	Activity	Target completion date
(a)	Tendering	September 2010
(b)	Tender evaluation and award of contract	November 2010
(c)	Construction and delivery of the vehicle	November 2011
(d)	Testing, training and commissioning of the vehicle	December 2011

Interim Measure

11. Prior to the commissioning of the proposed replacement vehicle in 2011, EMSD will conduct more frequent inspections and carry out necessary repairs to the existing CFT R42 to maintain its service at the present level as far as practicable.

Security Bureau
April 2010