For information

Legislative Council Panel on Security

Replacement of a Crash Fire Tender in the Airport Fire Contingent

Purpose

This paper informs Members of our proposal to procure a new Crash Fire Tender (CFT) with enhanced functions to replace the existing CFT R22 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. Currently, the AFC's entire airport rescue and fire fighting (ARFF) fleet comprises 14 fire fighting vehicles, two ambulances and eight rescue vessels.

3. 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. Support fire appliances and ambulances will be deployed from nearby fire stations and ambulance depots outside the airport control area, if necessary.

The existing Crash Fire Tender, R22

5. Commissioned in 1995, the existing CFT R22 is deployed at the Main Airport Fire Station. Its main function is to reach the aircraft accident site speedily on and off paved surfaces in all reasonable weather conditions,

and apply uninterrupted foam for protection of the passenger evacuation path. For instance, in August 1999 when a passenger plane with 315 persons on board made a hard landing in stormy weather and caught fire, CFT R22 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.

Justification for the Proposed Replacement

6. The Director of Electrical and Mechanical Services advises that the normal life expectancy of this model of CFT is eight years. While FSD was able to prolong the use of CFT R22 with regular maintenance, its performance is starting to diminish due to wear and tear to its all-wheel-drive system and roof foam monitor. The availability of CFT R22 dropped below 84% in 2006 (i.e. total down-time of 60 days) due to the need of a major overhaul. Although its availability has gone up to over 97% in the first 11 months of 2007, replacement is imperative to avoid possible lengthy layoff for overhauling in a few years' time.

7. We, therefore, propose to replace the existing CFT R22 with a new vehicle in 2011. To better meet the high safety standards of the airport, the replacement CFT will have the following additional functions –

(a) a more powerful roof foam monitor with longer flow range to enhance the vehicle's fire fighting capability, especially for large aircrafts such as 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 speeds up to 80 km per hour, enabling the vehicle to make speedier intervention at the fire scene;

(c) 8x8 wheel-drive allowing for greater manoeuvrability in poor weather conditions and rough terrain; and

(d) more environmental friendly Euro-III type engines.

Financial Implications

Non-recurrent Expenditure

8. The estimated non-recurrent cost of the replacement vehicle with the necessary on-board fire fighting and communication equipment is $13.860 million, with a detailed breakdown as follows –

		$ (million)
(a)	Basic vehicle	11.160
(b)	Fire fighting and communication equipment on board the CFT[1]	0.390
(c)	Payment to Electrical and Mechanical Services Trading Fund for project management and acceptance testing	1.155
(d)	Contingency (10% of items (a) and (b) above)	1.155
	Total	**13.860**

9. The estimated cash flow is as follows –

Year	**$ (million)**
2008-2009	1.386
2009-2010	4.158
2010-2011	6.930
2011-2012	1.386
Total	**13.860**

Recurrent Expenditure

10. The annual maintenance recurrent cost of the replacement CFT, similar to that of the existing vehicle, will be covered under a lump-sum bulk service agreement between FSD and the Electrical and Mechanical Services Department (EMSD), and absorbed by the Director of Fire Services within his existing resources. No additional staff cost will be involved as FSD will

[1] Including only equipment that have reached their normal serviceable lives.

deploy the existing staff to man the replacement vehicle.

Implementation Plan

11. We plan to seek funding approval from the Finance Committee (FC) in April 2008. Subject to FC's approval, the implementation plan is as follows –

	Activity	Target completion date
(a)	Design and preparation of tender specifications	October 2008
(b)	Tendering	January 2009
(c)	Tender evaluation and award of contract	October 2009
(d)	Construction and delivery of the vehicle	April 2011
(e)	Testing, training and commissioning of the vehicle	April 2011

Interim Measure

12. 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 R22 to maintain its service at the present level as far as practicable.

Conclusion

13. Members are invited to note the content of this paper.

Security Bureau
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