

ITEM FOR FINANCE COMMITTEE

HEAD 45 – FIRE SERVICES DEPARTMENT Subhead 603 Plant, vehicles and equipment

Members are invited to approve a new commitment of \$17,400,000 for procuring a replacement Crash Fire Tender.

PROBLEM

We need to replace the existing Crash Fire Tender (CFT) R42 with a new vehicle to maintain the high safety standards of the Hong Kong International Airport (HKIA).

PROPOSAL

2. The Director of Fire Services (D of FS), on the advice of the Director of Electrical and Mechanical Services (DEMS) and with the support of the Secretary for Security, proposes to create a new commitment of \$17,400,000 for replacing the existing CFT R42 with a new one.

JUSTIFICATION

Functions of CFT R42

3. CFT is a special fire-fighting vehicle. Its main function is to reach the site of aircraft accident speedily to apply uninterrupted foam for protection of the passenger evacuation path. The existing CFT R42, deployed at the Sub Airport Fire Station near the north runway at the centre of HKIA, has provided consistent and quality service. 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 arrived swiftly at the scene and performed its function effectively to protect the evacuating passengers.

/The

The Need for Replacement

4. The existing CFT R42 has been in service for over 10 years. With regular maintenance provided by the Electrical and Mechanical Services Department, the vehicle is expected to maintain satisfactory availability rate in the coming two years. However, to ensure that the Airport Fire Contingent (AFC) of the Fire Services Department (FSD) is fully capable of handling emergency situations at all times, we need to plan ahead for the procurement of a new CFT to replace the existing one in 2011 before any major maintenance difficulties arise.

The Proposed Replacement Vehicle

5. The replacement CFT will have largely the same function as that of the existing CFT R42 and will comply with the prevailing international standards. The major features of the replacement CFT include -

- (a) a powerful foam jet with an effective range of over 90 metres so as to handle fire-fighting duties involving large aircraft, 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;
- (c) 8 x 8 wheel-drive to provide greater manoeuvrability in poor weather conditions and rough terrain; and
- (d) more environmental friendly engines (i.e. meeting Euro-III or better emission standards).

FINANCIAL IMPLICATION

Non-recurrent Expenditure

6. On the advice of DEMS, D of FS estimates that the non-recurrent cost of the replacement CFT with the necessary on-board fire-fighting and communication equipment is \$17,400,000, with a detailed breakdown as follows –

/ \$

	\$ '000
(a) Basic vehicle	14,000
(b) Fire-fighting and communication equipment on board the CFT	500
(c) Payment to Electrical and Mechanical Services Trading Fund (EMSTF) for project management and acceptance testing	1,450
(d) Contingency (10% of items (a) and (b) above)	1,450
Total	17,400

7. On paragraph 6(a) above, the expenditure of \$14,000,000 is for procuring the basic vehicle, including the fire pump with an independent engine.

8. On paragraph 6(b) above, the expenditure of \$500,000 is for procuring dedicated fire-fighting and communications equipment for installation on the replacement CFT. Other equipment on board the existing CFT that are still in serviceable condition will be transferred to the replacement vehicle upon its commissioning.

9. On paragraph 6(c) above, the expenditure of \$1,450,000 is for payment to EMSTF for providing project management services, including tender preparation, evaluation of tender bids received, and performance of the acceptance test of the replacement CFT.

10. The estimated cash flow is as follows –

Year	\$ '000
2010-11	5,600
2011-12	11,800
Total	17,400

/Recurrent

Recurrent Expenditure

11. D of FS estimates that the annual recurrent expenditure on maintenance and fuel for the new CFT will be \$210,000 and \$30,000 respectively from 2012-13 onwards, which is the same as that for the existing CFT R42. FSD will deploy existing staff to man the replacement CFT.

IMPLEMENTATION PLAN

12. We are now drawing up the specifications and preparing the tender document. Subject to the approval of the Finance Committee (FC), we will commence tendering in July 2010. The procurement timetable 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

PUBLIC CONSULTATION

13. We consulted the Legislative Council Panel on Security on the proposal on 4 May 2010. Members raised no objection to its submission to the FC for funding approval.

BACKGROUND

14. The AFC is responsible for fire-fighting and emergency rescue in aircraft accidents at HKIA and its surrounding waters and area. The AFC's entire airport rescue and fire-fighting fleet comprises 14 fire-fighting vehicles, two ambulances and eight rescue vessels located at strategic positions surrounding the airport apron and runway. The specific functionalities of each type of fire-fighting vehicles are set out in the Enclosure.

Encl.

**Functionalities of the Airport Rescue and Fire-fighting Vehicles
in the Airport Fire Contingent**

(a) Rapid Intervention Vehicle (4)*

Rapid Intervention Vehicles are the primary fire-fighting vehicles within the Airport Fire Contingent (AFC) capable of applying a large quantity of extinguishing agent to the aircraft accident scene within a very short period of time to put out an incipient fire and prevent the spread of the fire.

(b) Crash Fire Tender (4) *

Crash Fire Tenders can reach the accident site speedily on and off paved surfaces in all weather conditions, and protect the evacuation path. They can maintain uninterrupted foam production while the vehicle is in motion at a speed up to 80 km per hour.

(c) Hose Foam Carrier (4) *

Hose Foam Carriers provide water and foam supplies to other fire-fighting vehicles, and carry a quantity of complementary extinguishing agents, such as dry powder or carbon dioxide gas.

(d) Jackless Snorkel (2) *

Jackless Snorkels are equipped with a nozzle which can pierce through the fuselage and discharge water spray, foam and dry powder to tackle fire in the cabin of the aircraft, including fire involving the auxiliary power unit or tail engine.

* *The existing number of vehicles in the AFC.*
