

ITEM FOR FINANCE COMMITTEE

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

Members are invited to approve a new commitment of \$15 million for procuring a new Crash Fire Tender to replace the existing Crash Fire Tender R12.

PROBLEM

The Fire Services Department (FSD) needs to replace the existing Crash Fire Tender (CFT) (fleet number R12) in order to maintain the fire-fighting and rescue capability of the Department in the Hong Kong International Airport.

PROPOSAL

2. The Director of Fire Services, on the advice of the Director of Electrical and Mechanical Services and with the support of the Secretary for Security, proposes to replace the existing CFT R12 with a new one.

JUSTIFICATION

Functions of CFT

3. CFT is a specialised vehicle of the Airport Fire Contingent (AFC) of FSD. The CFT R12 proposed for replacement has been in service since 2006 and is currently deployed at the Main Airport Fire Station^{Note}. Its main function is to reach the scene of accident speedily when an aircraft accident occurs. It has to operate efficiently even in poor weather and road conditions. Furthermore, CFT is able to apply uninterrupted foam while in motion to protect the passenger evacuation path and prevent the spread of fire.

/Need

^{Note} There are two airport fire stations. The Main Airport Fire Station is located near the South Runway and the Sub Airport Fire Station is located near the North Runway.

Need to Replace the Existing CFT R12

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

(a) *Approaching the end of normal serviceable life*

The existing CFT 12 commissioned its service in July 2006. The normal serviceable life of a CFT is eight years. According to the assessment of the Electrical and Mechanical Services Department (EMSD) on the CFT R12 in 2013, it is estimated that the vehicle could remain in service until the commissioning of the new CFT in 2016. If the CFT R12 remains in service for an unduly long period of time after the end of its normal serviceable life, the efficiency of the frontline fire-fighting/rescue operation may be diminished. There is an imminent need for FSD to commence the replacement work as soon as possible.

(b) *Frequent repair and increase of maintenance cost*

The major parts of CFT R12 such as engine, gearbox and electrical 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 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. It will not be cost-effective to continue using CFT R12.

The proposed CFT

5. FSD proposes to procure one new CFT for replacing the CFT R12. The specifications and installations of the new CFT will largely be the same as those of the existing CFT R12, and be able to meet international standards. Furthermore, a more environmental-friendly Euro V engine will be used. The major specifications and installations of the new CFT are highlighted below –

- (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)

- (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 four-axle all-wheel-drive system, allowing for greater manoeuvrability in adverse weather conditions and on rough terrain.

FINANCIAL IMPLICATIONS

Non-recurrent Expenditure

6. The total non-recurrent cost of procuring a new CFT, together with the necessary facilities on board, is estimated to be \$15 million. The detailed breakdown is as follows –

	\$m
(a) Basic vehicle and the fire-fighting equipment required on board	12.50
(b) Payment to Electrical and Mechanical Services Trading Fund (EMSTF)	1.25
(c) Contingency	1.25
Total :	15.00

7. On paragraph 6(a) above, the estimate of \$12.50 million is for procuring the basic vehicle which will be an assembled unit comprising the chassis, cabin, roof foam jet and other components. The amount does not include the cost of procuring the communication system as the system on the existing CFT R12 is still in serviceable condition, and can be transferred to the replacement CFT for use upon its commissioning.

8. On paragraph 6(b) above, the estimate of \$1.25 million is for payment to EMSTF for project management and acceptance test.

9. On paragraph 6(c) above, the estimate of \$1.25 million represents about 10% contingency on item 6(a).

10. The estimated cash flow requirement is as follows –

Year	\$'000
2014 – 15	563
2015 – 16	6,187
2016 – 17	8,250
Total :	15,000

Recurrent Expenditure

11. FSD estimates that the total annual recurrent cost of the new CFT will be about \$210,000 (including maintenance cost of \$180,000 and fuel cost of \$30,000), which is lower than the annual recurrent cost of about \$320,000 for the existing CFT R12 (including maintenance cost of \$290,000 and fuel cost of \$30,000). The replacement proposal will not result in additional recurrent cost. FSD will deploy existing manpower to operate the new CFT without the need for additional resources.

IMPLEMENTATION PLAN

12. Subject to the approval of the Finance Committee, we plan to procure the replacement vehicle according to the following schedule –

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

/PUBLIC

PUBLIC CONSULTATION

13. We consulted the Legislative Council Panel on Security on 13 May 2014. Members supported the proposal.

BACKGROUND

14. The AFC of FSD is responsible for performing fire-fighting and emergency rescue operation as well as providing emergency ambulance services in cases of aircraft accidents at the Hong Kong International Airport and its surrounding area and waters. CFT is a specialised vehicle of the AFC. 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 occurs. Furthermore, CFT is able to apply uninterrupted foam while in motion to protect the passenger evacuation path and prevent the spread of fire. At present, FSD has four CFTs, with two being deployed at the Main Airport Fire Station and the other two at the Sub Airport Fire Station.

Security Bureau
July 2014