

For discussion
on 3 March 2009

Legislative Council Panel on Security

Replacement of Four Fire Appliances of the Fire Services Department

PURPOSE

This paper seeks Members' support for our proposal to –

- (a) replace the existing Rapid Intervention Vehicle (RIV) R41 in the Airport Fire Contingent (AFC) by a new RIV with enhanced features ; and
- (b) replace the existing three 50-metre Turntable Ladders (TLs) F135, F136 and F137 by new TLs with enhanced features.

BACKGROUND

The existing Rapid Intervention Vehicle R41

2. Commissioned in 1998, the existing RIV R41 is deployed at the Sub Airport Fire Station of the AFC. Its main function is to prevent the spread of the fire by applying a large quantity of extinguishing agent to the aircraft accident scene within a very short period of time, and to put out an incipient fire.

The existing three 50-metre Turntable Ladders F135, F136 and F137

3. Commissioned in 1996, the three 50-metre TLs F135, F136 and F137 are deployed at Lei Muk Shue, Chai Wan and Kwun Tong Fire Stations respectively. Their main functions are to carry out fire fighting and rescue operations at high level and work as surveillance towers. They are also deployed to operate in old districts with narrow streets.

JUSTIFICATION FOR THE PROPOSED REPLACEMENT

Rapid Intervention Vehicle

4. The Electrical and Mechanical Services Department (EMSD) advises that the normal life expectancy of this model of RIV is eight years. While FSD is able to prolong the use of RIV R41 with regular maintenance, the manufacturer has already ceased the production line of this model and the Department has difficulties in finding compatible spare parts in the market. As it has become increasingly difficult to service the RIV R41, we propose to replace the existing RIV R41 with a new one in 2011.

5. The replacement RIV will have stronger fire-fighting and rescue capabilities with the following enhanced features -

- (a) a more powerful roof foam monitor with longer flow range of up to 90 metres, as compared with 75 metres of the existing RIV;
- (b) the onboard water and foam concentrate capacities will both increase by 50%. The former will be increased from 6 000 litres to 9 000 litres and the latter from 720 litres to 1 080 litres; and
- (c) greater manoeuvrability in poor weather conditions and rough terrain with a 6x6 wheel-drive, as compared with the 4x4 wheel-drive of the existing model.

50-metre Turntable Ladder

6. The existing three 50-metre TLs F135, F136 and F137 are reaching the end of their normal serviceable lives of 12 years. It is also increasingly difficult to service the vehicle as the manufacturer has ceased to produce some of the critical spare parts, e.g. hydraulic pumps. There are also no compatible spare parts in the market.

7. We propose to replace the three aged 50-metre TLs in 2011. The replacement TLs will have stronger fire-fighting and rescue capabilities with the following enhanced features –

- (a) a rescue cage of load capacity up to 270kg to enhance high-level life rescue capability. This is a new feature as compared with

the existing model;

- (b) a built-in telescopic water pipe on ladder sections. There is no such built-in device in the existing model;
- (c) an electronic remote-controlled water monitor to facilitate the movement of water jet at ladder top, as compared with the existing manual-controlled one; and
- (d) the monitoring of ladder movement by a computerised system instead of by manual operation.

FINANCIAL IMPLICATIONS

Non-recurrent Expenditure

Rapid Intervention Vehicle

8. The estimated non-recurrent cost of procuring a replacement RIV with the necessary on-board fire fighting and communications equipment is \$10.295 million. A breakdown and the estimated cash flow requirements are at **Annex A**.

50-metre Turntable Ladder

9. The estimated non-recurrent cost of procuring three replacement 50-metre TLs with the necessary on-board fire fighting and communications equipment is \$33.871 million. A breakdown and the estimated cash flow requirements are at **Annex B**.

Recurrent Expenditure

10. FSD will absorb the recurrent cost of the replacement vehicles from within its existing resources. No additional staff cost will be involved as the Department will deploy the existing staff to man the replacement vehicles.

IMPLEMENTATION PLAN

11. We plan to seek funding approval from the Finance Committee

(FC) in April 2009. Subject to FC's approval, the tentative implementation plans are at **Annex C**.

Security Bureau
Fire Services Department
February 2009

Procurement of Rapid Intervention Vehicle by FSD
Estimated Non-recurrent Cost and Cash Flow Requirements

A. Estimated Non-recurrent Cost

	HK\$ (million)
(a) Basic vehicle	8.085
(b) Fire fighting and communication equipment on board the RIV ¹	0.494
(c) Payment to Electrical and Mechanical Services Trading Fund for project management and acceptance testing (10% of items (a) and (b) above)	0.858
(d) Contingency (10% of items (a) and (b) above)	0.858
Total	<u>10.295</u>

B. Estimated Cash Flow Requirements

Financial Year	HK \$ (million)
2009-2010	4.118
2010-2011	6.177
Total	<u>10.295</u>

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

**Procurement of three 50-metre Turntable Ladders by FSD
Estimated Non-recurrent Cost and Cash Flow Requirements**

A. Estimated Non-recurrent Cost

	HK \$ (million)
(a) Basic vehicle	26.775
(b) Fitting-out, accessories, communication system, training, factory acceptance, etc.	2.678
(c) Contingency (15% of items (a) and (b) above)	4.418
Total	<u>33.871</u>

B. Estimated Cash Flow Requirements

Financial Year	HK \$ (million)
2009-2010	0.339
2010-2011	13.548
2011-2012	16.936
2012-2013	3.048
Total	<u>33.871</u>

Tentative Implementation Plans

	Activity	Target completion date	
		RIV	Three TLs
(a)	Design and preparation of tender specifications	June 2009	June 2009
(b)	Tendering and award of contract	December 2009	December 2009
(c)	Construction and delivery of the vehicle	January 2011	June 2011
(d)	Testing, training and commissioning of the vehicle	March 2011	August 2011