

ITEM FOR FINANCE COMMITTEE

Head 31 – CUSTOMS AND EXCISE DEPARTMENT

Subhead 603 Plant, vehicles and equipment

New Item “Replacement of Two Mobile X-ray Vehicle Scanning Systems”

Members are invited to approve a new commitment of \$101,440,000 for the replacement of two Mobile X-ray Vehicle Scanning Systems of the Customs and Excise Department.

PROBLEM

The Customs and Excise Department (C&ED) needs to replace two existing Mobile X-ray Vehicle Scanning Systems (MXRVSSs) at the Man Kam To and Sha Tau Kok Boundary Control Points (BCPs) to meet evolving operational needs more effectively.

PROPOSAL

2. The Commissioner of Customs and Excise, on the advice of the Director of Electrical and Mechanical Services (DEMS) and with the support of the Secretary for Security, the Secretary for Financial Services and the Treasury, and the Secretary for Commerce and Economic Development, proposes to create a new commitment of \$101,440,000 to replace two existing MXRVSSs at the Man Kam To and Sha Tau Kok BCPs which are reaching the end of their normal economic serviceable life of ten years. C&ED will procure new MXRVSSs with enhanced features to meet evolving operational needs more effectively.

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JUSTIFICATION

Need to Replace the Existing MXRVSSs

3. In view of the busy cross boundary vehicular and passenger traffic between Hong Kong and the Mainland, C&ED first introduced in 2001 two MXRVSSs at the Man Kam To and Sha Tau Kok BCPs to cope with the consequential increase in vehicle and cargo inspections. With the aid of X-ray scanning technology, officers of C&ED are able to detect contraband concealed inside vehicles or cargoes, obviating the need to unpack cargoes for examination. The normal life expectancy of a MXRVSS is about ten years, after which the system will be beyond economical repair and may not be able to provide effective support to frontline operations. The annual maintenance cost of the existing MXRVSSs has been on the rise in recent years. It has also become increasingly difficult to maintain them due to a lack of supply of spare parts in the market after the production of the existing MXRVSS model ceased in 2005. A timely replacement will ensure the continuous X-ray scanning operation and the ability of C&ED in providing uninterrupted and efficient customs clearance services for cargoes and vehicles at the Man Kam To and Sha Tau Kok BCPs.

4. Furthermore, to maintain C&ED's operational efficiency, the proposed new MXRVSSs will be equipped with advanced technologies and inspection functions, including dual technologies of transmission cum backscatter X-ray. The details of the benefits of the new system are set out in paragraph 5.

Benefits of the Replacement Proposal

5. The replacement system will bring about benefits in vehicle and cargo clearance in the following aspects –

- (a) Timely replacement of the MXRVSSs will not only allow C&ED to provide uninterrupted and efficient customs clearance services for cargoes and vehicles at the two BCPs, but also enable C&ED to cope with evolving operational needs at the BCPs.
- (b) With the aid of the MXRVSSs, examination of a fully loaded 45-foot container can be completed within 30 minutes, significantly faster than physical examination (about two to three hours). The use of the MXRVSS not only shortens the inspection process at the BCPs, hence increasing the efficiency and effectiveness of customs inspection, but also benefits the trade (especially the logistics industry) by enhancing their competitiveness in providing efficient delivery services.

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- (c) With the aid of the MXRVSSs, vehicles and cargoes can be inspected more thoroughly. Irregularities inside cargoes and vehicles will be highlighted in eye-catching colour to assist officers of C&ED to easily identify concealed contraband or unmanifested cargo. The enhanced penetration power (200 mm steel as compared with the existing 100 mm) and the higher degree of accuracy of image analysis of the proposed new MXRVSSs will further strengthen the detection capability and effectiveness of C&ED.
- (d) At present, the existing MXRVSSs are equipped with Euro II diesel engine. The new MXRVSSs will be powered by diesel engines of Euro V emission standard which produce less emission and are therefore more environmental-friendly.

FINANCIAL IMPLICATIONS

Non-recurrent Expenditure

6. On the advice of DEMS, we estimate that the total non-recurrent expenditure for the replacement of the two MXRVSSs will be \$101,440,000, with breakdown as follows -

	Item	\$'000
(a)	Two sets of MXRVSSs	73,000
(b)	Initial spare parts	4,000
(c)	Supporting Services and Builder's Work	2,500
(d)	Contingency (10% of items (a) to (c))	7,950
(e)	Payment to the Electrical and Mechanical Services Trading Fund (EMSTF) for project management services	13,990
	Total:	101,440

7. On paragraph 6(a) above, the estimate of \$73,000,000 is for the procurement of two sets of new MXRVSS, including vehicles, X-ray scanners, power generators and ancillary systems that are required to support the X-ray scanning process.

8. On paragraph 6(b) above, the estimate of \$4,000,000 is for the procurement of initial spare parts, such as X-ray generation tubes, X-ray detector modules and hydraulic system parts, which are essential to the effective functioning of the new MXRVSSs.

9. On paragraph 6(c) above, the estimate of \$2,500,000 is for the provision of supporting services, such as operation and maintenance training, builder's works and building services works at the Man Kam To and Sha Tau Kok BCPs to prepare for the operation of the new MXRVSSs.

10. On paragraph 6(d) above, the estimate of \$7,950,000 represents a 10% contingency on the items set out on paragraphs 7 to 9 above.

11. On paragraph 6(e) above, the estimate of \$13,990,000 is for the payment to EMSTF for providing project management services for the replacement of the existing MXRVSSs, including system design, preparation of tender documents, tender evaluation, contract management and monitoring of system assembly.

12. The estimated cash flow requirement for the procurement of the two new MXRVSSs is as follows -

Financial Year	\$'000
2011 - 2012	1,400
2012 - 2013	5,600
2013 - 2014	94,440
Total:	101,440

Recurrent Expenditure

13. C&ED estimates that the annual recurrent expenditure on operating the two new MXRVSSs will be \$7,300,000 from 2014-15 onwards, including \$7,000,000 for maintenance inspections and repairs of dual-technology X-ray scanners, image analysis system, associated vehicle and replacement of parts, and

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other control systems, and \$300,000 for fuel consumption. This will be partly offset by the annual recurrent cost for the two existing MXRVSSs, which was \$4,100,000 in 2010. The higher recurrent cost of the new systems is the result of the more advanced technology they use, such as the higher X-ray penetration power in both X-ray generators and transmitters, as well as the more accurate and sophisticated image analysis system and software. C&ED will absorb the additional recurrent expenditure from within its own resources. The replacement proposal does not incur any extra staff cost.

IMPLEMENTATION PLAN

14. Subject to the approval of the Finance Committee (FC), C&ED plans to commence tendering of the two MXRVSSs in September 2011, with a view to rolling out the systems in January 2014, according to the following schedule -

	Activity	Target schedule
(a)	Preparation of tender specifications	June to August 2011
(b)	Invitation for tender	September 2011 to May 2012
(c)	Tender evaluation and award of contract	June to November 2012
(d)	System production and assembly	December 2012 to September 2013
(e)	System delivery	October 2013 to November 2013
(f)	System testing	December 2013

PUBLIC CONSULTATION

15. We consulted the Legislative Council Panel on Security on the proposal on 1 March 2011. At the meeting, some Members enquired about the implementation schedule of the replacement, the payment arrangement of project management services to EMSTF, and whether the operation of the MXRVSSs would pose any health risks. We provided supplementary information to Members on 3 May 2011. Members supported the proposal and raised no objection for the proposal to be submitted to the FC for funding approval.

/BACKGROUND

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16. According to the enforcement experience of C&ED and analysis of detected cases, smugglers have been using highly diversified methods in smuggling, including hiding contraband inside concealed compartments in vehicles/containers, or mixing it with other general cargoes in order to evade customs detection. On 4 December 1998, FC approved a commitment of \$67,930,000 for procuring two MXRVSSs at the BCPs at Man Kam To and Sha Tau Kok, which are major land BCPs connecting Hong Kong and the Mainland.

17. In 2010, vehicular throughput of the Man Kam To BCP was 1 683 745 and cargo throughput was 1 255 235 (in consignments). For Sha Tau Kok BCP, vehicular and cargo throughputs were 825 630 and 160 965 (in consignments) respectively. In the past three years, there were 100 smuggling cases detected with the aid of the MXRVSSs at the Man Kam To and Sha Tau Kok BCPs, in which 104 persons were arrested with the seized goods valued at \$217,000,000.

Security Bureau
May 2011