

For discussion
on 1 March 2011

Legislative Council Panel on Security

Replacement of Two sets of Mobile X-ray Vehicle Scanning System by Customs and Excise Department

Purpose

This paper sets out the proposal by the Customs and Excise Department (C&ED) to replace two sets of Mobile X-ray Vehicle Scanning System (MXRVSS) of at the Boundary Control Points (BCPs) at Man Kam To and Sha Tau Kok, and seeks comments from the Panel.

Background

2. The BCPs at Man Kam To and Sha Tau Kok are major land BCPs for passengers, vehicles and cargoes travelling between Hong Kong and the Mainland China. In the past decade, throughput at land BCPs has been on the rise. To cope with the consequential increase in vehicle and cargo inspections, C&ED introduced in 2001 two MXRVSSs in the aforementioned BCPs in order to support its enforcement operations. By using X-ray scanning technology, officers of C&ED are able to detect contraband concealed inside vehicles or cargoes, obviating the need to unpack the cargoes for examination.

3. According to the enforcement experience of C&ED and analysis of detected cases, methods used in smuggling are highly diversified, including hiding contraband inside concealed compartments in vehicles/containers, or mixing it with other general cargoes. In order to conduct a detailed check or thorough inspection on the inner portion of the cargo compartment of a fully loaded goods vehicle, officers of C&ED have to unload cargo from the container for examination by a small X-ray checker, or open the cargo packages for physical examination. On average, it takes about two to three hours to complete the examination

process of a 45-foot fully loaded container. This mode of operation is not only labour-intensive, time-consuming and inefficient, it also reduces the enforcement effectiveness and causes inconvenience to traders.

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

The Need for Replacing the Existing Systems

5. The normal life expectancy of the existing MXRVSSs is 10 years. Meanwhile, the annual maintenance cost for the two MXRVSSs has been on the rise in recent years, which in turn make repairs uneconomical. Furthermore, as the production of the existing MXRVSSs model has ceased since 2005, there has been a lack of supply of spare parts in the market. As a result, it has become increasingly difficult to maintain stable operating condition of the MXRVSSs. An absence of a timely replacement might also impede the X-ray scanning operation at the BCPs at Man Kam To and Sha Tau Kok.

6. On the other hand, the new MXRVSSs will be able to further strengthen the detection capability and operational efficiency of C&ED. The proposed systems are equipped with advanced technologies and inspection functions, including dual technologies of transmission cum backscatter X-ray. Transmission X-ray technology can project images of objects loaded inside container/vehicle through beaming X-ray to them. As for backscatter technology, it collects X-ray reflected from the objects under scanning and reflects the images of organic items (such as drugs, explosives and plastic weapons) clearly.

7. In view of the above considerations, and the time required for the necessary procurement, C&ED needs to implement the replacement proposal as soon as possible.

Benefits of the Replacement Proposal

8. The replacement of the two existing MXRVSSs will bring the following benefits-

- (a) Ensuring uninterrupted Customs clearance services for cargoes and vehicles

With the timely replacement of the MXRVSSs, C&ED will be able to provide uninterrupted and efficient customs clearance services for goods and vehicles at the boundary.

- (b) Facilitating smooth flow of passengers, vehicles and cargoes

With the aid of the MXRVSSs, examination of a fully loaded 45-foot container can be completed within 30 minutes, faster as compared against physical examination (about two to three hours). The use of MXRVSSs not only shorten 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 competitive edge on providing efficient delivery service.

- (c) Enhancing contraband detection capability

The application of dual technologies of X-ray scanning improves accuracy of image analysis. 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, therefore enhancing detection capability.

(d) Promoting environmental friendliness

The existing MXRVSSs are equipped with Euro II diesel engine. The new MXRVSSs will be powered by diesel engine of Euro V emission standard, which in turn produce lower emission and are more environmentally-friendly.

Financial Implications

9. We estimate that the replacement of the two sets of MXRVSS will incur a total non-recurrent cost of \$101.44 million over a period of three years from 2011-2012 to 2013-2014. A detailed breakdown is set out at Annex A.

10. In addition, we estimate that the recurrent cost for the two replacement MXRVSSs will be \$7.3 million a year. This includes the maintenance of X-ray scanners, advanced image analysis equipment and vehicles, as well as the fuel cost of the systems. C&ED will absorb the additional recurrent cost from within its own resources. The replacement proposal does not incur any extra staff cost.

Advice Sought

11. Subject to Members' views on the proposal, we plan to seek funding approval from the Finance Committee of the Legislative Council. Subject to the funding approval from the Finance Committee, we will commence the replacement proposal in accordance with the timetable set out at Annex B.

Security Bureau
Customs and Excise Department
February 2011

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Estimated Non-recurrent Cost and Cash Flow Requirements

I. Estimated Non-recurrent Cost

<u>Item</u>	<u>HK\$ million</u>
(a) Two sets of Mobile X-ray Vehicle Scanning System	73.00
(b) Initial spare parts	4.00
(c) Supporting Services and Builder's Work	2.50
(d) Contingency (10% of items (a) to (c))	7.95
(e) Payment to the Electrical and Mechanical Services Trading Fund for project management (16% of items (a) to (d))	13.99
Total:	<u>101.44</u>

II. Estimated Cash Flow Requirements

<u>Financial Year</u>	<u>HK\$ million</u>
2011 - 2012	1.40
2012 - 2013	5.60
2013 - 2014	94.44
Total:	<u>101.44</u>

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Tentative Implementation Schedule

<u>Activity</u>	<u>Target completion date</u>
(a) Preparation of tender specifications	August 2011
(b) Invitation for tender	May 2012
(c) Tender evaluation and award of contract	November 2012
(d) System assembly and delivery	December 2013