

*Procurement and maintenance of fire services equipment*

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The Audit Commission ("Audit") conducted a review of the Fire Services Department ("FSD")'s work on the procurement and maintenance of fire services equipment ("FSE"), including communications systems, fire appliances and support vehicles, fire-fighting and rescue vessels and other fire services support equipment.

2. FSD is responsible for fire-fighting and rescue on land and at sea, and providing emergency ambulance service for sick and injured persons under the Fire Services Ordinance (Cap. 95). FSE is critical for delivering FSD's core services and instrumental to the safe and efficient operations of frontline officers. In 2015-2016, FSD incurred \$482.7 million and \$127.1 million on the procurement and the maintenance of major FSE items respectively. The Procurement and Logistics Group of the Fire Services Headquarters Command is responsible for the FSE's procurement. Various types of FSE are maintained by FSD, the Marine Department or through FSD's contractors, in particular the Electrical and Mechanical Services Trading Fund of the Electrical and Mechanical Services Department, to ensure their reliability and safety use.

3. The Committee noted the following findings from the Director of Audit's Report:

Third Generation Mobilizing System

- the Third Generation Mobilizing System ("TGMS") is a sophisticated telecommunication and computer integrated mobilizing system adopted by FSD to enhance the identification, location and mobilization of fire-fighting and ambulance resources with a view to meeting the targets of graded response time. The Finance Committee of the Legislative Council approved funding of \$718.6 million in May 2000 for FSD to procure TGMS for replacing the Second Generation Mobilizing System in 2003. FSD launched TGMS in March 2005 prior to the completion of the System Acceptance Tests in April 2007. Due to technical issues encountered, FSD's graded response times were only met in 89.2% of the fire calls and 89.6% of the emergency ambulance calls in 2005-2006, below the target of 92.5%;
- in March 2001, a contract (with original value of \$794 million) for the procurement, installation and maintenance of TGMS was awarded to Contractor A. FSD then paid Contractor A an extra \$53.6 million for supporting the live operation TGMS for 25 months before the

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completion of the System Acceptance Tests. FSD had neither sought approval nor agreed with Contractor A the fee before commencing the service;

- up to April 2016, FSD had spent \$81.2 million on engaging the services of two trading funds, of which \$35.9 million was for engaging the Electrical and Mechanical Services Trading Fund in providing professional services for enhancing TGMS and monitoring Contractor A's finalization of outstanding contractual work from May 2007 onwards. Upon the completion of the System Acceptance Tests in April 2007, it had taken four years for FSD and Contractor A to agree on the arrangements for handling the outstanding contractual work in March 2011. Afterwards, Contractor A spent some four years to complete all the outstanding contractual work in August 2015;
- Contractor A has set a target response time (i.e. time required for arrival on scene after a system incident is reported) and a target turnaround time (i.e. time required to rectify a breakdown after arrival on scene) for corrective maintenance of TGMS equipment. However, in 2015-2016, for the maintenance of a sub-system of TGMS, the two-hour response time target was not met in 423 (43%) of 985 cases, and the target of six-hour turnaround time for critical faults was also not met in 248 (30%) of 814 cases;
- the TGMS contract was inadequate on some installation and maintenance terms. As a result, FSD had to procure additional TGMS equipment for installation on new emergency vehicles, and there were delays of about seven months on two occasions. While TGMS has a design serviceable life of 10 years and extendable to 15 years, there was inadequate provision for the maintenance service for the extension. Such maintenance service, which cost \$58.5 million a year, was obtained by a contract variation without competitive bidding;

Other fire services equipment

- as of May 2016, 246 (40%) of 620 fire appliances and support vehicles had exceeded their expected serviceable lives by four years on average;
- between September 2011 and December 2012, five contracts for procuring 37 fire appliances were terminated. FSD had paid \$66 million under three of the five contracts. The replacement fire

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appliances subsequently procured under five new contracts were put into operation between April 2014 and June 2016, some four years later than the original target commissioning dates under the terminated contracts;

- from July 2015 to June 2016, 86 (20%) of the 426 FSD maintained vehicles had not undergone all stipulated rounds of scheduled maintenance. Besides, there were delays in carrying out 359 rounds of scheduled maintenance for 222 vehicles (35% of 1 022 rounds for the 426 vehicles). From April 2015 to March 2016, out of the 194 vehicles maintained by the Electrical and Mechanical Services Trading Fund, 10 (5%) vehicles had missed all scheduled maintenance while another 23 (12%) vehicles each missed one round of the scheduled maintenance;
- as of July 2016, 14 (67%) of 21 fire-fighting and rescue vessels had exceeded their designed serviceable lives by 0.7 to 11 years. The replacement projects of a fireboat and two speedboats were delayed for more than four years and three years respectively mainly due to the shortage of experienced staff in the Marine Department. As a result, the total financial commitment had increased from \$101 million to \$130.3 million; and
- in the tender document of the contract (original value of \$81 million) for the supply of fire-fighting protective suits, the comprehensive managed care and maintenance service was only included as an optional item in order to attract more competitors to submit tenders. However, three variations were subsequently made to the contract for engaging the contractor to provide the comprehensive managed care and maintenance service for six years from April 2011 to March 2017 at a total cost of \$50.1 million.

4. The Committee did not hold any public hearing on this subject. Instead, it asked for written responses regarding the implementation of the TGMS contract, measures to improve contract management in similar projects in future, the monitoring of contractors' performance, FSD's plan to improve the age profile of its vehicle fleet, the monitoring of compliance of scheduled maintenance requirements for FSD's vehicles, issues relating to FSD's aged vessels and the implementation of FSD's 10-year vessel replacement/procurement plan. The replies from **Secretary for Security, Director of Fire Services, Director of Government Logistics,**

**Director of Electrical and Mechanical Services** and **Director of Marine** are in *Appendices 25 to 29* respectively.

5. The Committee wishes to be kept informed of the progress made in implementing the various recommendations made by Audit.