

A. Introduction

The Audit Commission ("Audit") conducted a review to examine the economy, efficiency and effectiveness in the provision of the emergency ambulance service by the Fire Services Department ("FSD") in response to emergency calls. The review focused on the following areas:

- use of the emergency ambulance service;
- performance measurement;
- use of ambulance resources;
- maintenance of ambulances; and
- procurement of replacement and additional ambulances.

2. The Committee held three public hearings on 6 and 8 January and 10 March 2009 respectively to receive evidence on the findings and observations of the Director of Audit's Report ("Audit Report").

3. **Prof Hon K C CHAN, Secretary for Financial Services and the Treasury**, and **Hon Ambrose LEE Siu-kwong, Secretary for Security**, respectively made an opening statement at the Committee's public hearing held on 10 March 2009. The full text of their statements are in *Appendices 5* and *6* respectively.

B. Use of the emergency ambulance service

4. According to paragraphs 2.3 and 2.4 of the Audit Report, the FSD did not have information on the degree of urgency of the emergency calls, and there was no assessment on the degree of urgency of the patients in the ambulance journey records. In response to the audit recommendation in paragraph 2.7(a), the FSD said that it would explore the feasibility of incorporating information on the degree of urgency of patients in the electronic ambulance journey records. The Committee questioned why the FSD did not keep such important management information, which could have been used for optimal deployment of emergency ambulance resources, and about the timetable for implementing the electronic ambulance journey records.

5. **Mr LO Chun-hung, Director of Fire Services**, said at the public hearing and in his letter of 7 January 2009 in *Appendix 7* that:

- the ambulance crew currently kept information manually on an ambulance journey record when handling an emergency call. To enhance service quality, the FSD was developing a paramedic service quality assurance system, which would include the introduction of electronic ambulance journey records. As the original system design had not included the capturing of information on the degree of urgency of patients, the FSD was exploring with its medical directors and system developer to see how such information could be incorporated in the electronic ambulance journey records; and
- given the complexity of the project, it was expected that the electronic ambulance journey records could only be implemented by November 2009.

6. Paragraph 2.5 of the Audit Report pointed out that, according to the Accident and Emergency ("A&E") Triage Categorisation System of the Hospital Authority ("HA"), from 2004 to 2007, on average, 40.5% of the conveyance of patients by ambulances to the A&E Departments of the HA were non-emergency cases. In view of the substantial number of non-emergency cases, the Committee asked:

- whether the FSD had any information on the extent of misuse of ambulance service;
- whether the FSD could provide more specific guidelines to the public on the proper use of emergency ambulance service; and
- about the implementation timetable for collaborating with the HA and other ambulance service providers to explore the practicability and feasibility of jointly launching education programmes for promoting the proper use of the emergency and non-emergency ambulance services, as stated in paragraph 2.8(c) of the Audit Report.

7. In response, the **Director of Fire Services** said at the public hearing and in his letter of 23 April 2009 in *Appendix 8* that:

- the HA's figure only reflected the patients' conditions when they reached the A&E Departments. Some patients' conditions might have improved as a result of the emergency care tendered by ambulance staff on the way to hospitals. The HA also considered that it was inappropriate to correlate the 40.5% with the over-use of the emergency ambulance resources;

- although the FSD did not have the actual number of non-emergency cases, it did note from the audio records of its Fire Services Communication Centre that there were some non-emergency calls involving misuse of ambulance service. Besides, according to a consultancy study commissioned by the FSD on the implementation of a medical priority despatch system ("MPDS") in Hong Kong, it was estimated that for 50% of the calls received, the patients' conditions would be classified as critical, life-threatening or serious. Non-life-threatening and less serious cases would constitute 28% and non-emergency cases 22%;
- the FSD agreed that more information on the degree of urgency of patients should be collected through the implementation of the electronic ambulance journey records. Efforts on public education should also be stepped up. The FSD would consult its medical directors and consider publicising some typical cases of misuse so as to educate the public on the proper use of the emergency ambulance service; and
- the FSD had, in collaboration with other ambulance service providers including the HA, St. John Ambulance Brigade and Auxiliary Medical Service, reviewed the feasibility of jointly organising public education programmes to encourage the proper use of ambulance service. All ambulance service providers welcomed the idea and would make every effort to devise suitable education programmes to enhance the effectiveness of public education. A working group had been set up to formulate strategies and organise related activities. Various ways and means to strengthen public education had been worked out for further action by the group, e.g. broadcasting of education programmes in the A&E Departments and clinics of the HA, developing web-based programmes for publicity through the web and conducting out-reach programmes at schools, etc.

8. Regarding the effectiveness of the FSD's publicity campaigns on the proper use of the emergency ambulance service, the Committee asked:

- why the FSD had not reviewed the effectiveness of its publicity campaigns since August 2006 (paragraph 2.12 of the Audit Report refers), and whether it had evaluated the publicity campaigns launched in 2008; and
- about the other publicity channels that would be adopted to enhance the effectiveness of publicity campaigns (paragraph 2.16(b) of the Audit Report refers).

9. The **Director of Fire Services** said that:

- he regretted that the FSD had not, since August 2006, followed the Good Practice Guide to Mounting Publicity Campaigns issued by the Information Services Department to review the effectiveness of its publicity campaigns. Previous publicity campaigns in 2005 were considered effective as shown in the subsequent reduction in the number of emergency calls. Regarding the publicity campaigns in October 2008, the FSD was in the process of collecting and analysing data; and
- meanwhile, the FSD was actively considering launching publicity campaigns on television, in view of the positive feedback on the fire prevention campaigns on television launched several months ago.

10. Noting from paragraph 2.9 of the Audit Report that the Security Bureau ("SB") and the FSD would explore the long-term options for better meeting the demand for the emergency ambulance service and the feasibility of introducing the MPDS in Hong Kong, the Committee enquired about the details of the MPDS as well as the Administration's plan and timetable for introducing the system.

11. The **Director of Fire Services** stated in his letter of 7 January 2009 that:

- in order to provide better services to the general public with limited resources, the FSD commissioned a consultancy firm to study the feasibility of the MPDS in Hong Kong. The study, completed in October 2005, recommended the implementation of the system in Hong Kong;
- as pointed out by the study reports, the local ambulance service could improve its response time for critical calls and achieve the international best practice standards with the implementation of the system. The system had been widely adopted around the world. In practice, communications personnel would categorise and prioritise a call by asking the caller some specific interrogative questions set by the system software, and then make a decision on an appropriate response mode and give pre-arrival instructions for the case;
- the reports recommended the adoption of five despatch prioritisation categories and related deployment strategies so as to achieve the target response time. For the categories involving critical or life-threatening patients, the target response time was 9 minutes. The target response time for serious but non-life-threatening patients was set at 15 minutes. For non-life-threatening and less serious cases, the internal target was 20 minutes. As for the non-emergency category, the internal target was 30 minutes;

- the primary purpose of establishing the MPDS was to enable the FSD to prioritise the despatch of ambulances in accordance with the seriousness of the patients' conditions. While a lower priority would be given to calls which were not of an emergency nature under the proposed system, no request for an ambulance would be denied;
- as the MPDS involved a wide range of issues, it was of paramount importance that the FSD conduct a prudent and comprehensive study prior to implementation. To this end, the FSD commissioned a consultancy firm in 2007 to study different response time scenarios under the system and accepted the findings of the study reports in early 2008. The FSD and the SB were reviewing in depth the findings and recommendations of the two reports; and
- the FSD was working out the specific options and detailed proposals on the MPDS. The FSD would consult the Panel on Security of the Legislative Council, medical institutions and organisations concerned, FSD staff, as well as the general public in 2009, before any concrete decision on the plan was made.

C. Performance measurement

12. According to paragraph 3.3 of the Audit Report, since November 1998, the FSD had adopted the target response time of 12 minutes (comprising a 2-minute activation time and a 10-minute travelling time) for the emergency ambulance service. Audit analysis of the response time of ambulances in Table 1 of paragraph 3.4 indicated that, from January 2004 to June 2008, the percentage of emergency calls answered within the 2-minute activation time increased from 87.4% to 95.6%, whereas that of the 10-minute travelling time decreased from 91.2% to 87.4%. The Committee enquired:

- about the reasons for the decrease in the percentage of emergency calls answered within the 10-minute travelling time, despite the implementation of the Third Generation Mobilising System ("TGMS") in June 2005;
- whether such decrease was related to the breakdown of the TGMS, about the details of the breakdown from June 2005 to December 2008, and the measures that had been or would be taken to improve the TGMS's reliability; and
- whether the benefits brought about by the implementation of the TGMS justified its cost.

13. The **Director of Fire Services** said at the public hearing and in his letter of 7 January 2009 that:

- with the implementation of the TGMS, information was exchanged by means of graphics and text transmission, and the time spent on voice communication was reduced. Therefore, more emergency calls were answered within the 2-minute activation time;
- the performance of the 10-minute travelling time was not directly related to the TGMS. Due to the ever-increasing demand for emergency ambulance service, it was often necessary to despatch ambulances in other districts to handle the calls. Hence, the travelling distance and time to the scene of incident were inevitably longer. Besides, according to reports of the Fire Services Communication Centre, there were more cases of traffic congestion;
- there were indeed some problems during the initial phase of launching the TGMS in 2005. After system improvement was made by the contractor, the problems had been fixed and the TGMS had become a stable system. Details of the system breakdown between June 2005 to December 2008, including the number of times of breakdown, the duration of each breakdown and the ambulance services affected, were set out in Attachment 2 to *Appendix 7*; and
- the cost of the TGMS was justified as the following benefits had been realised after its implementation:
 - (a) Accurate and efficient resources deployment. The TGMS identified and located real time ambulance resources automatically for immediate despatch to the scene of incidents. It helped achieve more accurate incident tasking and optimise resources management;
 - (b) Direct and effective operational information exchange. The automation features of the TGMS could improve the efficiency in information exchange by means of graphics and text transmission through Wireless Digital Network and hence reducing the time spent on voice communication;
 - (c) Enhanced flexibility in resources identification and mobilisation. Through open platform design, the TGMS allowed easy programme development and enhancement and had the flexibility to meet future operational requirements and demand for continuous improvement in fire and emergency ambulance services; and

- (d) No additional staffing resources. With the introduction of the automatic call-out function at fire stations and ambulance depots, and mobile data terminals on vehicles for address confirmation, console operators at the Fire Services Communication Centre would not have to broadcast mobilising instructions and confirm incident addresses. Hence, the time spent by a console operator in handling an emergency call could be reduced and, as a result, the operator could be released earlier to handle the next call. Overall, the TGMS would enable console operators to cope with the increase in the number of calls without the need for additional staffing resources.

14. As the decrease in the percentage of emergency calls answered within the 10-minute travelling time might reflect a shortage of ambulances and/or ambulance crew, the Committee asked whether the FSD had discussed the situation with the SB, and sought additional resources to meet the ever-increasing demand. The **Director of Fire Services** said that:

- the FSD had adopted a multi-pronged approach to meet the rising demand of emergency ambulance service. Several management measures had been implemented to boost performance. For example, urgent care fleet manned by a 2-man crew instead of a 3-man crew was introduced to handle transfer of patients between hospitals, thus releasing resources for the emergency ambulance service. Also, to meet the service demand in the evening and night time, the working hours of staff on day shift had been adjusted to correspond better to the pattern of demand;
- the FSD had also submitted requests for ambulances and manpower to the Financial Services and the Treasury Bureau ("FSTB") via the SB, through the annual resource allocation exercises ("RAEs"). As resources were limited, the FSD had to make the best use of existing resources; and
- the FSD held regular meetings with the Secretary for Security every two to three months. The response time performance and manpower requirement were always discussed and examined in such meetings.

15. It appeared to the Committee that the FSD might have made use of the improvement in the 2-minute activation time to compensate for the increase in the 10-minute travelling time, so as to achieve the performance target of answering 92.5% of the emergency calls within a target response time of 12 minutes. The Committee therefore requested the FSD to provide an analysis of the number and percentage of emergency calls answered in respect of the 2-minute activation time for the periods from 2005 to 2008, and from 1 to 14 February 2009, according to five categories of actual response time. The **Director of Fire Services** provided the relevant information in *Appendices 9* and *10* respectively.

16. The Committee noted that the actual response time within the 2-minute activation time had shown a consistent improvement over the past few years, with a majority of the calls answered within 1 minute and 30 seconds. Also, according to paragraph 3.5 of the Audit Report, since 1999, the FSD had not conducted any review of the 12-minute target response time for the emergency ambulance service. The Committee asked whether the SB and the FSD would review the 12-minute target response time, including the division into the 2-minute activation time and the 10-minute travelling time.

17. The **Secretary for Security** and the **Director of Fire Services** said that:

- the performance pledge of answering 92.5% of the calls within 12 minutes was discussed and agreed to by the Panel on Security before it was adopted in 1998. The division of the 12-minute target response time into two components was to facilitate the FSD's monitoring of the respective response time for activation and travelling, so as to make corresponding improvement;
- as shown in the analysis of the response time from 1 to 14 February 2009, only about 72% of the ambulances could be activated within 1 minute. Hence, it might not be opportune to adjust the 2-minute activation time at this stage. The FSD would continue to monitor the response time; and
- despite the increase in the 10-minute travelling time, the overall target response time could be met because the activation time had been improved due to the adoption of the TGMS. Nevertheless, in view of the changes in the percentage of emergency calls answered within the 2-minute activation time and the 10-minute travelling time, the FSD and the SB would review the target response time and report the findings to the Panel on Security for further consultation.

18. According to paragraph 3.7 of the Audit Report, the FSD had started a benchmarking study on the 1-minute turnout time since June 2006, but had yet to finalise the study. The Committee enquired about the progress and target completion date of the study.

19. The **Director of Fire Services** replied at the public hearing and in his letter of 23 April 2009 that the review aimed to examine the turnout time of ambulances for different types of ambulance depots. The relevant figures might be used to identify room for improvement in the design of depots, with a view to shortening the turnout time. The FSD had completed data collection and was carrying out analyses. The review would be completed in May/June 2009.

20. The Committee noted from paragraph 3.8 of the Audit Report that from January 2004 to June 2008, the FSD could not achieve the performance target for the emergency ambulance service in the New Territories ("NT") Region. During this period, the percentage of emergency calls in the NT Region answered within the target response time ranged from 87.1% to 91.5%. The Committee asked:

- why the performance target could not be achieved over such a long period;
- whether the non-achievement of target was due to inadequate allocation of ambulance resources to the NT Region as compared to the Hong Kong and Kowloon Regions; and
- about the criteria for determining the number of ambulance shifts in different divisions under the Ambulance Command.

21. The **Director of Fire Services** explained at the public hearing and in Attachment 4 to his letter of 7 January 2009 that:

- due to the comparatively larger geographical coverage of the NT Region and hence longer travelling time, there were difficulties in achieving the performance target in the NT Region. It was noted that the East and West Division of the NT Region ("NT/E&W Division") could not achieve the performance target. The response time in the NT South Division and the Hong Kong and Kowloon Divisions was better because the turnaround time of ambulances was shorter in these areas; and
- in deploying ambulance resources for each division, other than population, the following factors were also taken into consideration:
 - (a) demand of emergency ambulance service in the area;
 - (b) the response time performance in the area;
 - (c) the available location serving as the base of ambulance and space for deploying additional ambulance resources;
 - (d) new developments (e.g. new towns, border control points);
 - (e) exceptional considerations (e.g. off-shore islands, remote areas);
 - (f) traffic condition; and
 - (g) risk factors (e.g. airport).

22. At the request of the Committee, the **Director of Fire Services** provided the number of emergency ambulance calls and the average age of ambulances at the four Divisions (viz. Hong Kong, Kowloon, NT/E&W and NT South) in Attachment 3 to his letter of 7 January 2009. He also said at the public hearing that the FSD had all along deployed ambulances according to the specific operational needs in different divisions. For example, as shown in the Attachment, the average age of ambulances in the NT South Division was 7.7, lower than that in the Hong Kong and Kowloon Divisions. This was because the NT South Division covered the Lantau Island, which had very steep roads. The FSD would continue to closely monitor the allocation of resources among different divisions.

23. The Committee noted from paragraph 3.10 of the Audit Report that in the NT/E&W Division, the percentage of emergency calls answered within the target response time on the night shift was lower than that on the day shift, and enquired about the reasons for that.

24. The **Director of Fire Services** explained in Attachment 4 to his letter of 7 January 2009 that:

- during night shift, the number of ambulances available would be reduced to about half of the strength of the day shift. As such, the number of locations with ambulance resources at night shift would be less than that on the day shift. Hence, the travelling distance was relatively longer; and
- as there were more ambulances on run and more ambulance calls on the day shift, there were more available ambulances travelling on the road in its hospital-to-base journey. Thus, the probability of having an available ambulance passing by the address of a patient would be higher on the day shift. As a result, the day shift response time performance in the NT/E&W Division was slightly higher than that of the night shift.

25. According to paragraph 3.9 of the Audit Report, the FSD was aware that the emergency ambulance resources in the NT Region had been stretched to their limits and there was a growing demand for the emergency ambulance service in the northern part of the NT Region. The Director of Fire Services also mentioned in paragraph 3.13 of the Audit Report that the FSD would continue to search for new sites (e.g. Sheung Shui) for constructing ambulance depots. The Committee enquired about the progress made by the FSD in identifying suitable sites for constructing additional ambulance depots in the NT Region, and whether there was a timetable.

26. The **Director of Fire Services** responded at the public hearing and in his letter of 7 January 2009 that:

- the FSD had identified a site in Sheung Shui for constructing a permanent ambulance depot. However, the site was quite large and the Lands Department advised that to ensure optimal usage of the land, it had to look for other users before the land could be developed for use by the FSD;
- as a permanent site was not yet available, the FSD had requested the Lands Department to carry out site search for the temporary provision of a site in Sheung Shui. The FSD had inspected several closed down schools as possible sites for placing ambulances but they were found not suitable. A table showing details of these sites and the results of site inspection was in Attachment 5 to *Appendix 7*; and
- in view of the above, there was no definite timetable for the construction of additional ambulance depots in the NT Region.

27. The Committee noted from Table 2 in paragraph 3.8 of the Audit Report that the FSD could not meet the performance target in 2004, 2005 and the first six months of 2008, and asked whether the FSD had looked into the underlying reasons for the non-achievement of performance target.

28. The **Director of Fire Services** stated that:

- although the FSD failed to achieve the performance target in 2004 and 2005, its performance had been on the rise since 2006. The performance target achieved was 92.7% in 2006 and 92.8% in 2007 respectively. The percentage decreased to 91.8% in the first six months of 2008 due to the prolonged period of cold weather in February 2008, which resulted in the increase in the number of calls to more than 2,000 calls per day, as compared with an average of 1,600 calls per day in 2007; and
- the FSD's performance was mainly affected by the ever-increasing number of emergency calls. Therefore, the FSD had to make use of existing resources through various management measures on the one hand and request additional resources from the Government on the other. In the past few years, although additional resources had been allocated to the FSD, the increase was not commensurate with that of the number of calls.

D. Use of ambulance resources

29. According to paragraph 4.3 of the Audit Report, as at 30 June 2008, the FSD had 2,198 ambulancemen, of which 64 were in training, 330 were on leave, 886 were off-duty, and 34 were deployed to perform other administrative duties. Since almost 60% of the ambulancemen could not be deployed for providing emergency ambulance service, the Committee asked whether the FSD's failure in achieving the performance target in some recent years was due to the shortage of manpower.

30. The **Director of Fire Services** responded that:

- since ambulancemen worked on a five-day cycle, with a normal shift pattern of "two day-shifts, one night-shift and two day-offs", there would be times when they were off-duty. Besides, some ambulancemen would be on sick leave, or released to training, physical fitness assessment and other job-related activities, resulting in shortage of manpower; and
- the FSD did not have sufficient manpower reserve for training and sick leave. Because of their job nature, many ambulancemen suffered from occupational diseases such as back pain, and could only perform light work. The FSD had therefore set up an occupational safety and health group to educate staff to take precautionary measures at work to avoid injury.

31. According to paragraph 4.6 of the Audit Report, as at 30 June 2008, the baseline daily ambulance availability ("DAA") was 184 ambulances on the day shift and 100 ambulances on the night shift for the provision of the emergency ambulance service. Paragraphs 4.7 to 4.9 showed that, from January 2007 to June 2008, the FSD could not achieve the baseline DAA for 229 days (i.e. 42% of 547 days) on the day shift and 435 days (i.e. 80% of 547 days) on the night shift. Despite the implementation of a scheme since August 2007 for deploying off-duty ambulancemen to augment the DAA, from January to June 2008, the FSD still could not achieve the baseline DAA for 71 days on the day shift and 124 days on the night shift. The Committee enquired:

- about the reasons for not achieving the baseline DAA on both shifts; and
- whether the scheme of deploying off-duty ambulancemen to man additional ambulances was temporary or permanent.

32. The **Director of Fire Services** and **Mr MAK Kwai-pui, Chief Ambulance Officer, FSD**, said that:

- the baseline DAA was derived from the average actual DAA over a period of time in the past and had not factored in staff turnover and increasing training needs. It was used to facilitate the management of the daily operation of the emergency ambulance service. As the baseline DAA was only meant to reflect a reasonable availability target, it would be normal that the actual availability fluctuated above or below the baseline DAA. In fact, in 2007, the average DAA achieved was 182.2 ambulances on the day shift (i.e. 99.8% of the baseline DAA), and 95.9 ambulances on the night shift (i.e. 3.5% lower than the baseline DAA). The FSD would ascertain the reasons for not meeting the baseline DAA on the night shift in 2007; and
- the scheme of deploying off-duty ambulancemen was temporary. In the long run, the FSD wished to obtain sufficient manpower to man the ambulances.

33. The **Director of Fire Services** supplemented in his letter of 23 April 2009 that:

- the reasons for not meeting the baseline DAA on the night shift in 2007 included:
 - (a) the rate of staff absence due to sickness was higher on night shift than on day shift as there was a smaller pool of staff on night shift;
 - (b) the urgent care fleet and emergency medical assistant motorcycle, which were available on day shift only, could not be deployed to augment the inadequacy of staff due to sickness during night shift; and
 - (c) the manpower on day shift, comprising two watches of ambulance personnel, doubled that on night shift comprising one watch only. The smaller pool of staff on night shift was less capable of covering unexpected staff absence due to sickness; and
- having regard to the above reasons, the FSD would continue to monitor and review the situation so as to further improve the overall availability.

34. The Committee further enquired about the estimated number and cost of additional manpower required by the FSD, including the manpower reserve required, in order to achieve the baseline DAA for the provision of the emergency ambulance service stated in paragraph 4.6 of the Audit Report.

35. The **Director of Fire Services** replied in his letter of 2 March 2009, in *Appendix II*, that:

- the baseline DAA was the level of ambulance availability that the FSD aimed to achieve, having due regard to the actual level of ambulance availability that was achieved on average over a period of time. It was only a management tool based on past statistics for the purpose of monitoring the day-to-day performance of ambulance availability;
- while the level of DAA might in theory have a direct bearing on response time performance, the eventual performance was subject to a number of other variable factors, including the traffic, weather and road conditions, the bunching of calls at any one time, the distance between callers and ambulance resources, etc. As such, the FSD did not consider it appropriate to use the baseline DAA to work backward and derive the estimated number and cost of additional manpower required; and
- the FSD's bids for additional manpower were principally based on the ratio of ambulances to emergency calls recommended in the consultancy report of December 2001 with the ultimate objective of achieving the response time performance target.

36. According to paragraph 4.12 of the Audit Report, the Secretary for Financial Services and the Treasury, in responding to the audit recommendations in paragraph 4.10, said that "the SB and the FSD were provided with additional resources in the 2005 Recurrent Expenditure Resource Allocation Exercise to improve the emergency ambulance service. With the additional resources, it was expected that the FSD should be able to meet the baseline DAA (i.e. 184 ambulances on the day shift and 100 ambulances on the night shift as at 30 June 2008)". The Committee asked:

- whether the FSD had specifically stated in its submission in the 2005 RAE that, if its bid was approved, the FSD should be able to meet the specified baseline DAA; and
- the reason why, with the allocation of additional resources, the FSD still could not meet the baseline DAA.

37. The **Director of Fire Services** said at the public hearing and in his letter of 7 January 2009 that:

- the FSD had not specifically stated in the 2005 RAE submission that it would meet the baseline DAA of "184 ambulances on the day shift and 100 ambulances on the night shift" if its bid was approved;

- the FSD could not meet the baseline DAA as the increase in manpower could not catch up with the increase in emergency calls. From 2005 to 2007, the number of calls had increased by 6.4% whereas its manpower had increased by 3.7%;
- in 2005, owing to the government-wide initiatives to control expenditures, funding request had to be closely scrutinised by a panel chaired by the Chief Secretary for Administration and the Financial Secretary. Hence, the FSD put forward its bid for manpower in a prudent manner without adopting the recommendation of the consultancy report. The bid, if approved, would provide the minimum level of manpower to fully utilise its ambulances. Nevertheless, the bid for additional manpower was not approved in full; and
- furthermore, lead time would be required for the recruitment and training of new appointees before they could be deployed for service. The recruitment process normally took 8 months, and 6 more months were required for training. The maximum capacity of the training school was about 80 trainees and the appointees might have to attend training in batches. Coupled with the natural wastage of ambulance staff, the FSD had always faced a tight supply of manpower.

38. Regarding his comments in paragraph 4.12 of the Audit Report, the **Secretary for Financial Services and the Treasury** explained in his letter of 7 January 2009 in *Appendix 12* that the FSTB's comments took into account the fact that the FSD had created 28, 47 and 30 additional posts in 2006-2007, 2007-2008 and 2008-2009 respectively (i.e. 105 new posts in total), and that these posts should in turn enable it to operate approximately 4, 7 and 5 additional shifts in the respective years (i.e. approximately 16 additional shifts eventually). Since the FSD had indicated to the FSTB in 2005 that it was operating 281 ambulance shifts on average daily between January and June 2005, the additional shifts supported by the additional posts created should enable the FSD to meet the baseline DAA of 184 day and 100 night ambulances (i.e. a total of 284 ambulance shifts).

39. According to paragraph 4.16 of the Audit Report, from 2004 to 2007, although the number of urgent calls had remained rather stable, the number of urgent calls handled by the urgent care fleet had decreased from 9,390 in 2004 by 1,037 (11%) to 8,353 in 2007. Paragraph 4.18 also revealed that the number of urgent calls handled by emergency ambulances had increased from 19,821 in 2005 by 4,808 (24%) to 24,629 in 2007. A significant number (i.e. 15 out of 25 cases selected by the Audit for examination) of urgent calls were handled by emergency ambulances within the operating hours of the urgent care fleet. The Committee enquired about the reasons for the low utilisation of the urgent care fleet, and the timetable for completing the review of the efficiency and effectiveness of the urgent care ambulance service, as mentioned in paragraph 4.22(a) of the Audit Report.

40. The **Director of Fire Services** replied at the public hearing and in his letter of 23 April 2009 that:

- since the urgent care fleet comprised only 12 ambulances, it could not handle all urgent calls on their own and sometimes emergency ambulances had to respond to urgent calls when no urgent care ambulance was available in the vicinity;
- the FSD also noted that urgent care ambulances had to wait at the hospitals for a long time, very often over 30 minutes, before the picking up or handing over of patients. Noting that such long idling time would undermine the efficiency of the fleet, the FSD had, since 2006, worked with the HA to improve the communication between the ambulance crews and the HA staff, with a view to shortening the waiting time at hospitals. The waiting time at hospitals had been improved; and
- the FSD had examined the efficiency and effectiveness of the urgent care ambulance service. As there were a few issues to be further considered, the FSD aimed to conclude the review in May/June 2009. Pending the outcome of the review, the FSD was in parallel working closely with the HA to enhance the efficiency of the service. The FSD was also exploring other means to enhance the effectiveness and efficiency of the service.

E. Maintenance of ambulances

41. According to paragraph 5.7 of the Audit Report, from 2003 to 2007, the percentage of downtime of the ambulances maintained by the Electrical and Mechanical Services Department ("EMSD") increased from 10.3% to 15%. The percentage of downtime for unscheduled maintenance significantly increased from 6.4% in 2003 by 70% to 10.9% in 2007. Paragraph 5.8 further revealed that up to 30 June 2008, the FSD had not kept management information on the breakdown and the maintenance of individual ambulances. The Committee enquired:

- about the reasons for the increase in downtime, especially that of unscheduled maintenance; and
- why the FSD had not kept information on the breakdown and the maintenance of individual ambulances, which could help substantiate its requests for replacing ambulances.

42. The **Director of Fire Services** replied that:

- the increase in downtime was partly due to the practice in recent years that, if unscheduled maintenance was carried out at a time close to scheduled maintenance, the EMSD would take the opportunity to conduct scheduled maintenance together, so as to enhance the availability of ambulances. The time required for carrying out scheduled maintenance under such circumstances was counted into the time for unscheduled maintenance;
- because of the ageing of ambulances, there were increased incidents of ambulances on fire from 2005 to 2007. The EMSD had to immediately inspect these ambulances, thus increasing the number of days of unscheduled maintenance;
- the installation of new equipment and systems in the ambulances in recent years had also increased the time for scheduled maintenance; and
- as the FSD had engaged the EMSD to provide maintenance service for its ambulances, information on the breakdown and maintenance of individual ambulances was kept by the EMSD. Such information, if required, could be easily accessed by the FSD through the computer system. Nevertheless, the FSD agreed that such information should be kept by the FSD itself.

43. The Committee noted from paragraph 5.10 of the Audit Report that from 20 July to 19 August 2008, there were 67 ambulance breakdowns. Among these ambulances, 53 had been in service for over 9 years. 31 of the 67 breakdown cases occurred when the ambulances were conveying patients to hospitals. The Committee asked whether:

- these breakdowns and consequent delays had resulted in the death of patients before conveyance to hospitals;
- the FSD had conducted a comprehensive review of the causes of the increase in breakdowns; and
- the FSD had introduced measures to minimise the frequency of breakdowns.

44. The **Director of Fire Services** and **Mr SHE Siu-kuen, Assistant Director, EMSD**, said that:

- fortunately, no patients had lost their lives due to the breakdowns. However, frequent breakdowns were certainly unacceptable;
- the ageing of the ambulance fleet was the main cause of the increase in

breakdowns. Generally speaking, there were more incidents of breakdown in the summer time, owing to the adverse effect of the heat and humidity, which made the air-conditioners more prone to damage. The FSD would liaise with the EMSD before summer to strengthen the maintenance; and

- in view of the recent breakdowns, the EMSD had allocated additional manpower to perform a round of special inspection on the whole ambulance fleet, and replaced the batteries, air-conditioning components and engine belts where necessary. The EMSD had also increased the frequency of scheduled maintenance from three times to four times a year. As a result, there was considerable improvement in the reliability of ambulances.

45. According to paragraph 5.12 of the Audit Report, the FSD was the only disciplined services department joining the Minimum Cost Refurbishment Programme ("MCRP") for its ambulances and, in order to maintain the availability of the ambulance fleet, the FSD had since September 2007 reactivated 8 refurbished ambulances. Paragraph 5.14 of the Audit Report further revealed that the average downtime of the 8 ambulances under the MCRP was 12.4%. The Committee therefore asked:

- why the FSD joined the MCRP for its ambulances;
- whether the FSD would join the MCRP if it were provided with sufficient ambulances; and
- why the FSD had not evaluated the effectiveness of using the 8 refurbished ambulances since November 2007 (paragraph 5.14 of the Audit Report refers).

46. The **Director of Fire Services** said that:

- in 2003, the Government Logistics Department ("GLD") adjusted the percentage of maintenance reserve for the FSD's ambulances from 13% to 10%. Although the FSD did not agree to the reduced rate, it had to follow the established procedure. In view of the ageing of the ambulance fleet and the reduced number of maintenance reserve on the one hand, and the anticipated increase in demand for emergency ambulance service on the other, the FSD considered it necessary to make a contingency arrangement, i.e. joining the MCRP and identifying ambulances for refurbishment. If there were sufficient replacement ambulances and maintenance reserve, it was not necessary for the FSD to join the MCRP;

- the use of these refurbished ambulances was only intended to be a temporary measure. Besides, at the time of audit review, these ambulances had only been used for a short time and hence no comprehensive review on the effectiveness of using these ambulances had been conducted. Nevertheless, the FSD had been monitoring the situation of these ambulances; and
- in 2009 and 2010, a total of 196 ambulances would be replaced, amounting to 80% of the ambulance fleet. With the delivery of new ambulances, it was expected that there was no need to use the refurbished ambulances.

47. As it appeared to the Committee that the FSD had to join the MCRP to augment the ambulance availability due to inadequate provision of resources, the Committee queried why the SB did not seem to have recognised this problem, and paid due regard to the importance of the reliability of the ambulance fleet. In response, the **Secretary for Security** said at the public hearing and in his letter of 28 February 2009 in *Appendix 13* that:

- the SB had not instructed or encouraged the FSD to join the MCRP. The FSD joined the MCRP in April 2006 for the refurbishment of a total of 10 town ambulances ("TAs"). In fact, the 10 TAs proposed for refurbishment under the MCRP had been approved for replacement in the 2002 RAE and were actually replaced by new TAs between October 2004 and January 2006. Had these 10 TAs not undergone refurbishment, they would have been disposed of by the GLD in accordance with established procedures;
- the FSD proposed to refurbish and retain the 10 TAs as a temporary measure to enhance ambulance availability on a need basis. They were not intended for active emergency ambulance service. In 2006, there was no need to reactivate any refurbished TAs for active service. The response time performance of ambulance service in that year was 92.7%, which was above the FSD's pledge of 92.5%. Also, as a result of the 2005 and 2006 RAEs, the FSD had obtained funding for the replacement of another 35 TAs; and
- in late 2007, whilst the procurement of the 35 replacement TAs approved in the 2005 and 2006 RAEs was still in progress, it became clear that the new vehicles would not be fully delivered until the first quarter of 2009. The FSD saw the need to reactivate the refurbished TAs in batches on a need basis. In September 2007, 2 refurbished vehicles were reactivated. By the time this Audit Report was finalised in mid-2008, 8 TAs had been reactivated. The last 2 were reactivated in August 2008. That being the case, the situation would improve substantially when all 35 new TAs were delivered by March 2009. Furthermore, funding had been approved in the 2007 and 2008 RAEs for the replacement of another 161 ambulances, of which

65 would be available for service before the end of 2009 and the remaining 96 within the first half of 2010.

F. Procurement of replacement and additional ambulances

Economic life model ("ELM")

48. According to paragraph 6.3 of the Audit Report, as at 30 June 2008, 244 ambulances, excluding the 8 ambulances under the MCRP, had been in service, on average, for 8.1 years. Of the 244 ambulances, 176 (72%) were aged ambulances, including 64 (26%) ambulances in service for 10 years or more. The Committee asked why such aged ambulances had not been replaced, given that frequent breakdowns jeopardised rescue operations.

49. The **Director of Fire Services** explained that:

- according to the procedures for identifying ambulances to be replaced under the RAE set out in Appendix H of the Audit Report, the GLD prepared a first provisional replacement list for ambulances which had reached the end of their economical lives under the ELM. The GLD also prepared a second provisional replacement list for ambulances which had been in service for over 7 years but had not been included in the first provisional replacement list. The EMSD would then examine the conditions of the ambulances on the second provisional replacement list to determine the need for replacement. Under this mechanism, it was unavoidable that the majority of ambulances could only be replaced after having been in service for over 7 years; and
- the FSD had also expressed disagreement to applying this model on specialised vehicles like ambulances. In fact, the former Director of Fire Services ("former DFS") had sent two memoranda to the then Secretary for Financial Services and the Treasury ("then SFST") in 2005, expressing concerns about the use of the ELM in assessing ambulances due for replacement.

50. Regarding the two memoranda sent by the former DFS to the then SFST in 2005, the Committee asked:

- about the specific concerns raised by the then DFS;
- about the then SFST's subsequent response and actions taken to address those concerns; and

- whether the FSTB would consider not applying the ELM when assessing ambulances due for replacement, in view of the special function of emergency ambulance service.

51. In brief, the **Secretary for Financial Services and the Treasury** stated in his letter of 28 February 2009 in *Appendix 14* that:

- the two memoranda were part of a series of exchanges between the FSD and the FSTB in late 2005 regarding the allocation of non-recurrent funding in 2006-2007 for various purposes, including the procurement of ambulances;
- in the first memorandum, after being informed that funding had been approved for the replacement of 9 TAs, the then DFS requested additional allocation in 2006-2007 for him to pursue the original plan to replace a total of 21 replacement TAs. To substantiate this request, the then DFS said that "If they (the vehicles) are not replaced in time, their condition will deteriorate rapidly which will adversely affect our standard of service, not to mention the risk of breakdowns during fire fighting/rescue operation and the serious consequences that will bring to public safety and the safety of our staff";
- the FSD also requested additional allocation for the replacement of 2 village ambulances ("VAs"), after being informed that its original funding application to replace 3 VAs was unsuccessful. The FSD justified this request by stating that the serviceable lifespan of a VA was 7 years, and that by 2006-2007 all 4 VAs serving outlying islands would have been in service for 7 to 8 years and would require replacement. It added that the request for replacing 21 TAs and 2 VAs was supported by the GLD;
- on receipt of this memorandum, the FSTB invited the FSD to provide some quantifiable data to substantiate the appeal, including the number of breakdown for each vehicle in the original bid, as well as the maintenance and repair costs incurred for each vehicle. Having further considered the case, the FSTB wrote to the FSD confirming that the earlier decisions on allocation were upheld. The FSTB explained that when examining the appeal, it had taken into account the downtime record of individual vehicles (i.e. whether the downtime record exceeded 10%) and the absence of further data to substantiate the appeal;
- thereafter, the then DFS wrote a memorandum to the FSTB expressing his concern over the use of downtime record or "90% availability" as a "benchmark for determining the necessity for replacement of emergency vehicles". He added that the department could "not take the availability of an emergency vehicle as an indicator of its condition". He also stated that "the vehicles we are seeking to replace are not general purpose vehicles" and

cautioned that the Government "may end up paying a huge price in due course" from public safety angle if ageing vehicles were not replaced in time;

- following up the concern expressed by the then DFS in late 2005, the FSTB had been exploring with the FSD since mid-2006 the use of other indicators as additional reference points. The FSTB had also clarified that the downtime record was not an absolute yardstick and that it was prepared to consider cases on their individual merits;
- looking forward, the FSTB would work with the FSD, the SB, the GLD and the EMSD in reviewing the existing methodology, with a view to developing comprehensive indicators to guide management decisions on the replacement of ambulances;
- according to the FSD, the normal serviceable life of an ambulance should be 6 to 7 years, after which an ambulance should be replaced. The FSTB, however, remained of the view that it was not appropriate to base the replacement decision solely on the age of a vehicle, as an ambulance in poor condition might need replacement even if it had been in use for less than 6 to 7 years, while it would be a waste of public resources if an ambulance in good serviceable condition was disposed of only because it turned 6 to 7 years old;
- in this connection, the Director of Audit also pointed out in paragraph 41 of Chapter 11 of his Report No. 30 issued in June 1998 that vehicle replacement (with no exception for ambulances) should be based on the economic life and the cumulative maintenance costs rather than the age of a vehicle. In fact, the ELM was introduced in pursuance of the recommendation in that particular chapter of the Audit Report; and
- under the established procedures for identifying ambulances to be replaced, the ELM was only a step in the process and a tool to help identify ambulances due for replacement. As set out in Appendix H of the Audit Report, there were other procedures involving input by different parties. As the ELM could help identify ambulances due for replacement, the FSTB saw merit in continuing to make reference to it in the assessment work among other factors.

52. In response to the Secretary for Financial Services and the Treasury's statement in the above letter concerning the audit recommendation on the adoption of the ELM, **Mr Benjamin TANG, Director of Audit**, clarified in his letter of 10 March 2009, in *Appendix 15*, that according to paragraph 41 of Chapter 11 of Audit Report No. 30, the EMSD, in response to the recommendations made by the then Finance Bureau in May 1987, accepted the economic life concept for the replacement of vehicles. However, Audit

found that the EMSD had not followed the recommendations made by the Finance Bureau. The audit recommendations on the replacement of vehicles in paragraph 42 of that Audit Report were of a general nature. No exception for ambulances was specified.

53. The Committee further enquired that apart from the ELM, what other relevant factors would be considered in identifying ambulances due for replacement. **Ms Bernadette LINN Hon-ho, Deputy Secretary for Financial Services and the Treasury (Treasury)**, said at the public hearing and the **Secretary for Financial Services and the Treasury** stated in his letter of 18 March 2009 in *Appendix 16* that:

- unlike the replacement of general purpose government vehicles whereby recommendations were basically based on the ELM, recommendations for the replacement of ambulances were not confined to those generated from the ELM and might come from one or more of the following sources:
 - (a) recommended for replacement by the ELM;
 - (b) identified to be in need of replacement by the EMSD after vehicle inspection; and
 - (c) considered to be in need of replacement by the FSD having regard to its operational experience;
- the process incorporated recommendations from different sources, with a view to ensuring that all ambulances which might be in need of replacement could be identified for further consideration. When considering the recommendations from these different sources, the FSTB had also made reference to the availability rate of individual ambulances; and
- if the FSD could provide more information, such as the maintenance and breakdown records, to substantiate its requests for replacing ambulances which were not included under the ELM, this would certainly facilitate considerations by all relevant bureaux and departments.

Bidding for replacement ambulances

54. According to paragraph 6.6 of the Audit Report, 10 ambulances rejected in the 2006 RAE were not recommended for replacement by the FSD in the 2007 RAE. These 10 ambulances were subsequently recommended for replacement in the 2008 RAE. The Committee asked about:

- the accumulated maintenance cost, vehicle age, mileage run and replacement cost of the 10 ambulances rejected in the 2006 RAE, as compared to those of the cars of Government Principal Officials ("PO") due for replacement in 2006-2007;
- the reasons for rejecting the 10 ambulances in the 2006 RAE, as well as the breakdown records of each of these ambulances when they were recommended for replacement in the 2006 and 2008 RAEs respectively; and
- the reasons for not including the rejected ambulances in the 2006 RAE in the ensuing RAE.

55. The **Secretary for Financial Services and the Treasury** stated in his letter of 28 February 2009 that:

- as at 30 June 2006, for the PO cars, their age ranged between 8.50 – 9.08 years; accumulated mileage ranged between 154,068 – 263,935 km; accumulated maintenance cost ranged between \$371,710 – \$588,244; and their average replacement cost was \$357,000 each;
- for the 10 TAs, their age ranged between 7.83 – 9.00 years; accumulated mileage ranged between 173,807 – 282,539 km; accumulated maintenance cost ranged between \$635,254 – \$1,008,672; and their estimated replacement cost was \$962,000 each;
- for all the PO cars, their accumulated maintenance cost as at 30 June 2006 exceeded the replacement cost. However, for the 10 ambulances in question, only one of them had its accumulated maintenance cost higher than the estimated replacement cost; and
- the ELM supported the replacement of all PO cars. The ELM also recommended the replacement of the 10 TAs in question. Accordingly, the Director of Government Logistics and the Director of Fire Services had respectively included the PO cars and the 10 TAs when they bid funding for the relevant block votes for the year in question. However, in the case of the FSD, the provision required for replacing the 10 TAs had not been included in the final allocation.

56. On the reasons for rejecting the 10 ambulances, the **Secretary for Security** replied in his letter of 28 February 2009 that:

- in the 2006 RAE, the FSD requested 36 replacement TAs and the SB supported 26 of them. The remaining 10 TAs proposed for replacement were observed to yield a relatively high availability rate of around 90% at the time of application. Furthermore, the FSD had 10 TAs refurbished under the MCRP at that time that could be deployed on a need basis. The availability rate and breakdown record of the 10 TAs not supported for replacement in the 2006 RAEs were at Annex A to **Appendix 13**;
- regarding the 2008 RAE, the SB supported all 73 replacement TAs requested by the FSD, and the FSTB approved the SB's recommendation in its entirety. 10 of these TAs were previously included in the FSD's bid in the 2006 RAE. The availability rate and breakdown record of these 10 TAs were at Annex B to **Appendix 13**; and
- the FSD agreed with the audit recommendation and would ensure that all TAs rejected in the previous RAE were included in the bid of the annual RAE. To facilitate the submission of bids by the FSD in future exercises, the SB and the FSTB would specify the TAs not supported for replacement, so that the FSD could take them into account when preparing the list of proposed replacement in the subsequent year.

57. In respect of the audit recommendation in paragraph 6.11(b) of reviewing the methodology of determining the number of ambulances to be replaced, the Committee enquired about the Administration's plan and timetable for taking forward the review.

58. The **Secretary for Financial Services and the Treasury** stated in his letter of 18 March 2009 that:

- the Director of Fire Services had undertaken to work out, in collaboration with the EMSD and the GLD, an objective methodology of determining the number of ambulances to be replaced that was acceptable to all parties;
- the FSD had already started discussions with the relevant departments. The FSTB would work with all parties concerned and provide input along the way. It was hoped that the review would be completed by the third quarter of 2009, as this would facilitate the preparation and assessment work in relation to the FSD's bid, if any, for replacing its ambulances in the 2009 RAE; and
- by 2010 when all replacement ambulances approved in recent years had been delivered by phases, over 80% of the ambulance fleet would be under 2 years old and the fleet's age would be reduced from the current average age of around 8 years to 1.7 years.

59. Given that most of the ambulances would be replaced in 2009 and 2010, the Committee asked how the FSD could ensure that the problems brought about by ageing ambulance fleet would not recur several years later. The **Director of Fire Services** responded that the FSD would review the age distribution of the ambulances after all the new ambulances had arrived, and would discuss with the relevant bureaux and departments for a structured and staggered replacement of ambulances in future.

Lead time for ambulance procurement

60. According to paragraph 6.7 of the Audit Report, it took about three to four financial years to complete the process of replacing an ambulance (i.e. from the bidding of fund, drawing up of design and specifications, tendering to the delivery of an ambulance). The Committee enquired about:

- the reasons for taking such a long time for procuring an ambulance;
- the length of time normally required in each step of the procurement process; and
- the specific measures that would be adopted by the FSD, the EMSD and the GLD to expedite the procurement process.

61. The **Assistant Director, EMSD**, said at the public hearing and the **Director of Fire Services** stated in his letters of 18 March and 23 April 2009 that:

- the process of replacing the ambulances approved under the 2005 RAE had taken four financial years to complete because in October 2006, the EMSD noted that the ambulance model would be changed. The EMSD was also notified by the FSD that some more ambulances might be approved under the 2006 RAE. Having discussed with the FSD, the EMSD and the GLD arranged tendering for the 35 ambulances approved in the 2005 and 2006 RAEs in one go, thus lengthening the procurement process;
- it took about 4 months from the preparation of the bids by the bureaux and departments to the announcement of RAE results, normally around October each year. Funding for approved items would be available at the beginning of the new financial year on 1 April, following passage of the relevant vote on account resolution by the Legislative Council;
- once funding was secured in early April, the EMSD would draw up the design and specifications of the vehicles in collaboration with the FSD. This process took about 6 months to complete. The ensuing tendering process took about 5 to 6 months;

- delivery of ambulances after award of contract normally took about 12 months as the ambulance was a "purpose-built" vehicle which required installation of various equipment. If a large number of ambulances were to be procured or the new vehicles had to comply with the latest emission standard, longer lead time up to about two years might be required for delivery. For prolonged delivery schedule, partial or staged delivery would be sought;
- with a view to shortening the lead time for the procurement of ambulances, discussion had been held among the GLD, the EMSD and the FSD. Specific measures as follows would be adopted by the three parties to expedite the procurement process:
 - (a) the EMSD would start drawing up the design and specifications in collaboration with the FSD when the FSD was preparing funding bids under the RAE, with a view to completing the process within 4 months before the announcement of the RAE result; and
 - (b) the GLD would in parallel start making pre-tender preparation upon the submission of the RAE bid by the FSD, with a view to completing the preparatory work and inviting tender as soon as funding was secured; and
- with the above measures, the processes of bidding for fund, approval of fund, drawing up of design and specifications and tendering could be taken forward concurrently. The whole procurement process from the bidding of fund to the delivery of ambulances could be reduced, by 8 months, to 25 months. These measures would be adopted in the Non-works Capital Expenditure RAE for 2009.

Provision of ambulance and manpower resources

62. As it appeared to the Committee that many problems identified in the Audit Report on the provision of emergency ambulance service might be attributed to inadequate allocation of resources to the FSD to maintain the availability of ambulances, the Committee enquired about the details of the FSD's bidding of ambulances and manpower in the RAEs in 2005, 2006 and 2007, including the FSD's submissions to the SB, the SB's subsequent recommendations to the FSTB and the FSTB's decisions on the SB's recommendations.

63. The **Secretary for Financial Services and the Treasury** provided the details in his letter of 28 February 2009, setting out the number of ambulances and manpower requested by the FSD and the relevant justifications, as well as the SB's and the FSTB's considerations for supporting the requests or otherwise. Regarding resource allocation, the **Secretary for Security** also said at the public hearing that:

- since the amount of available resources was finite, bureaux had to prioritise the bids from departments and make recommendations to the central committee on the proposed allocations based on the justifications provided by the departments, the actual situation, and the resources available for re-deployment;
- the SB could not possibly support each bid to the full, but would ensure that the resources eventually allocated to the disciplined services departments would enable their heads to carry out their duties effectively and achieve the departments' performance pledges to the community. Therefore, as a Bureau Secretary, he would carefully consider the bids from each department within his purview and deploy resources as appropriate; and
- the decisions made by the SB on resource allocation to the FSD in the past few years had generally enabled it to achieve its performance pledge on the provision of ambulance service. For instance, the response time was 92.7% in 2006, 92.8% in 2007, 92.2% in 2008 and 92.8% in the first two months of 2009.

64. Responding to the Committee's query on whether the allocation of resources within the SB had been tilted towards the fire stream, the **Secretary for Security** said at the public hearing and in his letter of 18 March 2009 in *Appendix 17* that:

- there were eight disciplined services departments within the SB's purview, covering various areas of work including the maintenance of law and order, immigration and customs control, fire fighting and ambulance services, all of which were of great importance to social stability and public safety;
- in the annual RAEs, the departments within the SB's purview would propose the creation of thousands of new posts. The SB did not, and in fact could not, fully meet the requests made by the head of each of the disciplined services departments. Neither would the SB recommend priority to every bid without taking an overview of all the bids from departments; and
- the resources allocated to the ambulance stream in the past few years had in fact been more than those to the fire stream. Compared to the establishment as at 1 January 2006, the establishment of the ambulance stream had recorded a cumulative increase of 1.38%, 3.45% and 4.83% in 2007, 2008 and 2009

respectively, whereas that of the fire stream had only recorded a cumulative increase of 0.48%, 0.73% and 1.37% in these respective three years.

65. The Committee noted that in the 2005 RAE, the FSD submitted a bid for 231 posts to meet the increase in demand for the emergency ambulance service, but the SB only supported 115 posts and the FSTB eventually approved 110 posts. In the 2006 and 2007 RAEs, the SB did not support the FSD's request for manpower, but used the resources already approved in the 2005 RAE to create additional posts in 2006-2007, 2007-2008 and 2008-2009. The Committee asked:

- about the justifications of the SB for supporting only half of the posts requested by the FSD; and
- why the SB had made such phased arrangements in allocating the additional posts to the FSD in these years.

66. The **Secretary for Financial Services and the Treasury** stated in his letter of 28 February 2009 that:

2005 RAE

- in assessing the bid, the SB noted that the response time performance achieved in 2004 was below the target of 92.5% (91.1% in 2004). The SB agreed that additional resources were required. Having considered the competing bids by other departments under the SB, the SB supported the creation of 115 posts to provide 19 additional ambulance shifts, and considered that with effective use of resources, the FSD should be able to improve the response time performance. Approval was eventually given for the FSD to create not more than 110 posts for the improvement of emergency ambulance service;
- inherent in the approval were the concern that ambulance service appeared to have been abused, and the requirement for the SB to critically examine how the new resources should best be deployed and explore possible measures to reduce the alleged abuse of emergency ambulance service. The SB therefore explored a number of management options with the FSD, which included strengthening public education and consideration of an MPDS. Whilst the consultancy study on the feasibility to introduce the MPDS in Hong Kong was in active progress at that time, the FSD launched a publicity campaign to encourage the proper use of emergency ambulance service in late 2005;

- 28 additional posts were eventually created in 2006-2007 for operating 4 additional ambulance shifts, using the resources approved in the 2005 RAE. Decision on the use of the remaining resources was deferred until the effects of the publicity campaign were known and the way forward on the introduction of the MPDS was clearer;

2006 RAE

- the SB did not recommend the FSD's bid because the resources approved in the 2005 RAE had yet to be fully utilised and the proposed introduction of the MPDS in Hong Kong was still being considered. Also, the SB was already planning to provide another 47 additional posts, using the resources approved in the 2005 RAE, for the FSD to operate 7 additional ambulance shifts in 2007-2008. The SB considered that the additional posts should be sufficient for the FSD to meet demand in 2007-2008, having regard to the fact that the response time performance in the first six months of 2006 was above the performance pledge (an average of 92.9% from January to June 2006);
- it also appeared at that time that there was scope for the FSD to better manage demand in view of an ongoing publicity campaign against abuse of emergency ambulance service. The number of calls dropped by 7.4% in the first half of 2006 when compared with that of 2005; and

2007 RAE

- the SB did not recommend the FSD's bid, as it was already planning to provide another 30 additional posts for the FSD to operate 5 additional ambulance shifts in 2008-2009, using resources approved in the 2005 RAE. Together with the posts provided in 2006-2007 and 2007-2008, an accumulative total of 105 additional posts were provided by 2008-2009 for the FSD to operate a total of 16 additional ambulance shifts. The SB considered that this provision should be sufficient for the FSD to meet the demand for its ambulance service, having regard to the response time performance in 2006 (92.7%) and that in the first six months of 2007 (92.9%).

67. The Committee noted from the Secretary for Financial Services and the Treasury's letter dated 28 February 2009 that the number of additional posts recommended by the SB and approved by the FSTB in the 2008 RAE was substantially higher than that in previous years, and queried why there was a sudden increase in the allocation of resources to the FSD.

68. The **Secretary for Financial Services and the Treasury** explained in his letter of 18 March 2009 that:

- approval was given for the FSD to create 121 posts to strengthen its emergency ambulance service, close to the number of 130 additional posts recommended by the SB. The small difference was due to the consideration over fluctuations in emergency ambulance service calls that affected the estimated demand for ambulance resources;
- the approval had taken into account various factors. First, the number of ambulance calls increased by 6.7% in the first half of 2008 when compared with that in the same period of 2007. Moreover, the average response time performance in the first half of 2008 was 91.8%, as compared with 92.9% in the corresponding period of 2007. In this connection, the effects of the publicity campaign launched by the FSD in late 2007 on the proper use of emergency ambulance service also appeared to be not as effective as the one launched in late 2005. In the first half of 2006, after the publicity campaign in November 2005, the number of calls dropped by more than 7% when compared with that of 2005; and
- in the light of the above factors, the FSTB considered it necessary to approve additional resources for the FSD to cope with the prevailing and increasing demand in emergency ambulance service and meet the response time performance pledge.

69. The Committee noted from paragraph 6.16 of the Audit Report that since 2001, the FSD, based on the ratio of ambulances to emergency calls recommended in the consultancy report of December 2001, had estimated the number of additional ambulances required for the projected increase in emergency calls and bid funds under the Non-works Capital Expenditure RAE. However, according to the information provided by the Secretary for Financial Services and the Treasury vide his letter of 28 February 2009, the FSD's bids for additional ambulances from 2005 to 2007 had all been rejected, either by the SB or the FSTB. It appeared to the Committee that the FSD was not able to ensure a consistent achievement of performance target due to insufficient provision of ambulances. The Committee enquired about the justifications for rejecting the FSD's bids in these years.

70. The **Secretary for Financial Services and the Treasury** stated in his letter of 28 February 2009 that:

2005 RAE

- the FSD submitted a bid for procuring 9 additional TAs in order to keep the maintenance reserve ratio at 13% of the ambulance fleet. The SB supported

2 TAs based on the advice of the GLD that the maintenance reserve ratio should be at 10% instead of 13%. The maintenance reserve ratio was adjusted to 10% in 2003 as the GLD noted that the average downtime rate of the TAs dropped from 13% to 9.7% in the preceding three financial years;

- the FSTB, after consulting the GLD, decided to reject the funding required. The major considerations were that a number of existing ambulances were unmanned; about 40 new TAs which were put into service in late 2004 would begin to operate in full capacity after resolution of initial technical problems; and 4 new TAs would be delivered in the end of 2005;

2006 RAE

- the FSD submitted a bid for procuring 19 additional TAs, 17 of which were for meeting growing demand as the projected number of ambulance calls would reach 579,000 in 2007 and 368 ambulance shifts were required with reference to the recommendations in the consultancy report of December 2001. The other 2 TAs were required to keep the maintenance ratio at 10% of the ambulance fleet;
- the SB did not support the bid as the GLD advised that the ambulance fleet of the FSD at that time should have sufficient capacity to cope with the projected number of ambulance calls in 2007. The GLD also did not support the additional TAs for maintenance reserve as not all TAs were shown to be fully utilised by the FSD;

2007 RAE

- the FSD submitted a bid for procuring 26 additional TAs, 24 of which were for meeting growing demand as the projected number of ambulance calls would reach 624,000 in 2008 and 384 ambulance shifts were required with reference to the recommendations in the consultancy report. 2 TAs were required to keep the maintenance reserve ratio; and
- the SB did not support the bid in the light of the advice provided by the GLD, which was basically the same as the advice given in the 2006 RAE.

71. As the FSD's bids were generally based on the recommendations in the consultancy report, the Committee asked why the SB had not taken the consultant's recommendations in assessing these bids. The **Secretary for Security** replied that:

- the consultancy report summarised the results of the review of the paramedic ambulance service and made recommendations in various aspects. Its recommendation on the training of ambulancemen to be Emergency Medical Assistant IIs had been implemented and funding had been allocated for this purpose; and
- the report provided a forecast of the ambulance needed based on various assumptions. However, when handling annual funding bids, the SB had to make reference to the actual figures and service demand at that time instead of simply following the recommendations of the report. As the Bureau Secretary, he had to carefully scrutinise the bids and ensure that public money was properly spent.

72. The **Director of Audit** added that since the consultancy report was published in 2001, the ratio of ambulances to emergency calls recommended in the report might no longer be applicable. Also, several measures introduced by the FSD after 2001 might have affected the availability of ambulances. These included the introduction of the urgent care fleet in April 2003 and the TGMS in June 2005, reorganisation of the Ambulance Command in April 2007, as well as the implementation of a scheme for deploying off-duty ambulancemen to man additional ambulances in August 2007. Audit therefore recommended that the FSD should review the existing methodology of estimating the number of additional ambulances required to meet the projected increase in emergency calls.

G. Conclusions and recommendations

73. The Committee:

- considers that the various problems identified in the Director of Audit's Report ("Audit Report") on the provision of an efficient, effective and reliable emergency ambulance service by the Fire Services Department ("FSD"), details of which are given in the ensuing parts below, may be attributed:
 - (a) not only to the fact that the FSD has not kept or made effective use of management information that could help to improve its management and use of existing ambulance resources, and to substantiate its requests for additional resources;
 - (b) but also to inadequate allocation of resources to the FSD to provide a level of service that can meet the expectation of the community;

Use of the emergency ambulance service

- expresses concern that:
 - (a) the FSD did not have information on the degree of urgency of the emergency calls, which could have been used for optimal deployment of emergency ambulance resources and to draw the public's attention to the proper use of the emergency ambulance service;
 - (b) there was no assessment on the degree of urgency of the patients in the ambulance journey records;
 - (c) according to the Accident and Emergency ("A&E") Triage Categorisation System of the Hospital Authority ("HA"), from 2004 to 2007, on average, 40.5% of the conveyance of patients by ambulances to the A&E Departments of the HA were non-emergency cases. Whilst it is not wholly appropriate to correlate this figure with the misuse of emergency ambulance service, as some patients' conditions might have improved as a result of the emergency care tendered by ambulance staff on the way to hospitals, it does show cause for concern over the possible misuse of the ambulance service; and
 - (d) since August 2006, the FSD has not reviewed the effectiveness of its publicity campaigns on the proper use of the emergency ambulance service;
- acknowledges that the Director of Fire Services:
 - (a) plans to introduce electronic ambulance journey records by November 2009, and incorporate information on the degree of urgency of patients in such records;
 - (b) is working out the detailed proposals on the medical priority despatch system, with a view to enabling the FSD to prioritise the despatch of ambulances according to the seriousness of the patients' conditions, and will consult the Panel on Security of the Legislative Council and the public in 2009 before making a decision;
 - (c) will launch joint education programmes together with the HA and other ambulance service providers to enhance the effectiveness of public education on the proper use of the emergency and non-emergency ambulance services. A working group has been set up to formulate strategies and organise related activities; and

- (d) has agreed to implement other audit recommendations in paragraphs 2.7 and 2.15 of the Audit Report;
- urges the Director of Fire Services to:
 - (a) facilitate and ensure the optimal deployment of emergency ambulance resources by taking appropriate measures, including launching the electronic ambulance journey records (with information on the degree of urgency of patients) by November 2009 without delay; and
 - (b) make reference to information on the degree of urgency of patients, and step up efforts to encourage the public's proper use of the emergency ambulance service;

Performance measurement

- expresses grave concern and finds it unacceptable that:
 - (a) since 1999, the FSD has not conducted any review of the 12-minute target response time (comprising a 2-minute activation time and a 10-minute travelling time) for the emergency ambulance service;
 - (b) from January 2004 to June 2008, the percentage of emergency calls answered within the 2-minute activation time increased from 87.4% to 95.6%, whereas that of the 10-minute travelling time decreased from 91.2% to 87.4% despite the implementation of the Third Generation Mobilising System in June 2005. In 2008, in respect of the 2-minute activation time, 88% of the calls could be answered within 1 minute 30 seconds;
 - (c) although the decrease in the percentage of emergency calls answered within the 10-minute travelling time might reflect a shortage of ambulances and/or ambulance crew, the FSD had not ascertained the reasons for such decrease, or used the decreasing figure, as appropriate, as one of the justifications to substantiate its requests for additional resources. Instead, the FSD made use of the improvement in the 2-minute activation time to compensate for the increase in the 10-minute travelling time in order to achieve the performance target of answering 92.5% of the emergency calls within a target response time of 12 minutes;
 - (d) despite the increase in the percentage of emergency calls answered within the 2-minute activation time, for the period from January to June 2008, the FSD failed to achieve the performance target and only

91.8% of the emergency calls were answered within the 12-minute target response time;

- (e) the FSD has not finalised the benchmarking study on the 1-minute turnout time conducted since June 2006; and
 - (f) from January 2004 to June 2008, the FSD could not achieve the performance target for the emergency ambulance service in the New Territories ("NT") Region. During this period, the percentage of emergency calls in this region answered within the target response time ranged from 87.1% to 91.5%. Efforts made to improve the response time have been in vain, as shown below:
 - (i) the FSD's review of the emergency ambulance service in the NT Region, conducted in June 2006, concluded that the East and West Division of the NT Region ("NT/E&W Division") could not achieve the performance target. After the reorganisation of the Ambulance Command in April 2007, the FSD still could not achieve the performance target in the NT/E&W Division. From April 2007 to June 2008, only 89.8% of the emergency calls in the NT/E&W Division were answered within the target response time; and
 - (ii) noting that the emergency ambulance resources in the NT Region had been stretched to their limits and there was a growing demand for the emergency ambulance service in the northern part of the NT Region, the FSD considered it necessary to construct additional ambulance depots in the region (e.g. Sheung Shui). However, no suitable sites could be identified;
- acknowledges:
- (a) the Secretary for Security's undertaking to review the 12-minute target response time for the emergency ambulance service, including the division into the 2-minute activation time and the 10-minute travelling time, and report the findings to the Panel on Security for further consultation; and
 - (b) that the Director of Fire Services:
 - (i) will finalise the benchmarking study on the 1-minute turnout time in May/June 2009; and
 - (ii) has generally agreed to implement other audit recommendations in paragraph 3.12 of the Audit Report;

- urges:
 - (a) the Secretary for Security to:
 - (i) set a definite timetable with the Director of Fire Services for taking forward the above review of the target response time; and
 - (ii) actively liaise with the relevant policy bureaux and government departments with a view to assisting the FSD in expeditiously identifying suitable sites in the NT Region for constructing additional ambulance depots; and
 - (b) the Director of Fire Services to critically review the allocation of ambulance resources among individual divisions, especially those in the NT Region, to ensure that the performance target is achieved in all divisions;

Use of ambulance resources

- expresses serious concern and finds it unacceptable that:
 - (a) from January to December 2007, the FSD could not achieve the baseline daily ambulance availability ("DAA") for 158 days on the day shift and 311 days on the night shift. Despite the implementation of a scheme since August 2007 for deploying off-duty ambulancemen to man additional ambulances to augment the DAA, from January to June 2008, the FSD still could not achieve the baseline DAA for 71 days on the day shift and 124 days on the night shift;
 - (b) the FSD failed to achieve optimal utilisation of the urgent care ambulances and emergency ambulances, as follows:
 - (i) from 2004 to 2007, on average, 10.7 urgent care ambulances were available for handling urgent calls on each day. However, on average, only 6.6 (62%) of 10.7 urgent care ambulances were used to handle urgent calls;
 - (ii) from 2004 to 2007, the number of urgent calls remained rather stable, ranging from 34,175 to 37,192. However, the number of urgent calls handled by the urgent care fleet decreased from 9,390 in 2004 by 1,037 (11%) to 8,353 in 2007;
 - (iii) it has been a lapse of five years since the FSD's last review of the operation of the urgent care fleet in April 2004;

- (iv) the number of urgent calls handled by emergency ambulances increased from 19,821 in 2005 by 4,808 (24%) to 24,629 in 2007. A significant number (i.e. 15 out of 25 cases selected by the Audit Commission for examination) of urgent calls were handled by emergency ambulances within the operating hours of the urgent care fleet; and
 - (v) urgent care ambulances had to wait at the hospitals for a long time before the picking up or handing over of patients, resulting in a waste of ambulance resources. From January 2007 to May 2008, the ambulance crew had to wait for more than 30 minutes at the hospitals for 379 urgent cases. The average waiting time at the hospitals for these 379 urgent calls was 41 minutes, ranging from 31 to 71 minutes;
 - (c) the FSD did not train the required number of Emergency Medical Assistant IIs ("EMA IIs") to provide the paramedic ambulance service for all the emergency calls. If an emergency ambulance manned by a 3-man crew is not supervised by an EMA II, it is assigned as a floating urgent care ambulance and normally not used to provide the paramedic ambulance service. The significant increase in the number of emergency calls handled by floating urgent care ambulances (from 6,819 in 2004 by 6,537 (96%) to 13,356 in 2007) calls for the need to assess the number of EMA IIs required and expand the relevant training programme; and
 - (d) under the continuous quality improvement programme, except for the cardiac arrest cases, there was no specification of the minimum number of emergency cases to be reviewed for assessing the performance of the ambulance staff. In the first quarter of 2008, only 3,436 (2.17%) cases were reviewed;
- acknowledges that the Director of Fire Services:
- (a) has ascertained the reasons for not meeting the baseline DAA on the night shift in 2007, and will continue to monitor and review the situation so as to improve the overall availability;
 - (b) aims to conclude the review on the efficiency and effectiveness of the urgent care ambulance service in May/June 2009; and
 - (c) has generally agreed to implement other audit recommendations in paragraphs 4.10, 4.21, 4.30 and 4.35 of the Audit Report;

- urges the Director of Fire Services to expeditiously implement the above audit recommendations to ensure the optimal utilisation of ambulance resources;

Maintenance of ambulances

- considers that from the public safety point of view, it is of paramount importance to ensure the safety, reliability and roadworthiness of the ambulance fleet, as it is used for emergency rescue operations;
- expresses astonishment and serious dismay that:
 - (a) the Security Bureau ("SB") not only underrated the problem of inadequate provision of resources to maintain the availability of the ambulance fleet at a level that could meet the public expectation, which had led to the FSD's being the only disciplined services department joining the Minimum Cost Refurbishment Programme ("MCRP"), the SB even used the FSD's participation in the MCRP as one of the justifications to reject part of its request for ambulance replacement in the 2006 Resource Allocation Exercise ("RAE"); and
 - (b) up to 30 June 2008, 8 out of the 10 refurbished ambulances under the MCRP had been reactivated. These ambulances had been in service, on average, for about 11 years and their average downtime was 12.4%. Despite the significant downtime of several refurbished ambulances, the FSD has not evaluated the effectiveness of using the 8 refurbished ambulances since November 2007;
- expresses serious dismay and finds it unacceptable that the FSD has not proactively monitored and enhanced the availability and reliability of ambulances:
 - (a) from 2003 to 2007, the percentage of downtime of the ambulances maintained by the Electrical and Mechanical Services Department ("EMSD") increased from 10.3% to 15%. The percentage of downtime for unscheduled maintenance significantly increased from 6.4% in 2003 by 70% to 10.9% in 2007. The significant increase in the downtime of ambulance maintenance, especially unscheduled maintenance, undermined the availability and reliability of the ambulance fleet for the emergency ambulance service;
 - (b) up to 30 June 2008, the FSD had not kept management information on the breakdown and the maintenance of individual ambulances. Neither had the FSD ascertained the causes and consequences of the increase in breakdowns of ambulances. The sudden breakdowns of ambulances

jeopardise the rescue operations, and reduce the availability and reliability of the ambulances;

- (c) even though some breakdowns occurred when the ambulances were conveying patients or casualties to the hospitals, the FSD had only started to keep a brief summary of the breakdowns since 20 July 2008. Records from 20 July to 19 August 2008 revealed that among the 67 ambulance breakdowns, 53 ambulances had been in service for over 9 years. 31 of the 67 breakdown cases occurred when the ambulances were conveying patients to hospitals; and
 - (d) the performance of the EMSD in the maintenance of ambulances has not been closely monitored, as reflected in the following:
 - (i) under the Service Level Agreement ("SLA"), the guaranteed level of availability was only applicable to ambulances in service not exceeding 7 years. Although 147 (60%) of 246 ambulances had already exceeded their design serviceable life of 7 years (i.e. aged ambulances) on the commencement of the SLA (i.e. 1 April 2006), no target availability was set for these aged ambulances;
 - (ii) since the commencement of the SLA, the EMSD has not submitted, and the FSD has not requested for, the quarterly performance report specified in the SLA; and
 - (iii) from August 2006 to June 2008, the number of ambulances kept in the Fan Garden and the Siu Ho Wan workshops exceeded the quotas (i.e. the maximum number of ambulances that could be kept in the EMSD's workshops) for a significant number of days, ranging from 92 days to 224 days. These two workshops provided the maintenance service for ambulances which mainly handled emergency calls in the NT Region;
- acknowledges that the Director of Fire Services has generally agreed to implement the audit recommendations in paragraph 5.19 of the Audit Report;
 - urges:
 - (a) the Secretary for Security, together with the Director of Fire Services, to critically review the provision of resources for the FSD to maintain the availability of the ambulance fleet at a level that can meet the public expectation; and

- (b) the Director of Fire Services to:
- (i) in consultation with the SB, critically review the appropriateness of joining the MCRP for its ambulances and reactivating refurbished ambulances for rescue operations;
 - (ii) keep and make effective use of management information on the breakdown and maintenance history of individual ambulances, such as the frequency of breakdowns, the risk of breakdown on rescue operations, and the downtime of unscheduled maintenance and the related costs, etc;
 - (iii) in collaboration with the Director of Electrical and Mechanical Services, conduct a comprehensive review of the causes and consequences of the increase in breakdowns, including the impact on rescue operations; and
 - (iv) proactively introduce measures to minimise the frequency of breakdowns and enhance the availability and reliability of the ambulance fleet;

Procurement of replacement and additional ambulances

- expresses dismay and finds it unacceptable that:
- (a) the problem of ageing ambulance fleet had not been addressed opportunely by the SB and the FSD. As at 30 June 2008, 244 ambulances, excluding the 8 ambulances under the MCRP, had been in service, on average, for 8.1 years. Of the 244 ambulances, 176 (72%) were aged ambulances, including 64 (26%) ambulances in service for 10 years or more. The average age of the FSD's ambulance fleet increased from 5.36 years in 2003 to 7.61 years in 2007. The number of aged ambulances increased from 23 in 2003 by 6.7 times to 178 in 2007;
 - (b) when considering recommendations for replacement of ambulances, the Financial Services and the Treasury Bureau ("FSTB") mainly made reference to the economic life model and the availability rate of individual ambulances, without paying due regard to the special function of ambulances, i.e. providing emergency conveyance of patients and casualties to hospitals, and the impact of breakdown on rescue operations; and

- (c) the lead time for procuring ambulances was unduly long. It took about three to four financial years to complete the process of replacing an ambulance (i.e. from the bidding of fund, drawing up of design and specifications, tendering to the delivery of an ambulance);
- finds it unacceptable and inexcusable that the FSD management did not possess the relevant management skills to collate and present management information in a way that could better substantiate its request for resources for emergency ambulance service:
 - (a) the FSD did not keep management information on the breakdown and maintenance history of individual ambulances. As a result, it was difficult for the FSD to justify the replacement of its aged ambulances; and
 - (b) in bidding funds to procure additional ambulances for the projected increase in emergency calls and the maintenance reserve under the Non-works Capital Expenditure RAE:
 - (i) the FSD had since 2001 estimated the number of additional ambulances required based on the ratio of ambulances to emergency calls recommended in the consultancy report of December 2001. The ratio, which was based on data in 2000, might no longer be applicable; and
 - (ii) the FSD did not provide comprehensive information on the availability and reliability of its ambulance fleet to the Government Logistics Department ("GLD") to substantiate its request for additional ambulances for the maintenance reserve;
- acknowledges that the Director of Fire Services:
 - (a) will take measures to shorten the lead time for procurement of ambulances so that the whole process from the bidding of fund to the delivery of ambulances can be reduced to 25 months. The measures will be adopted in the Non-works Capital Expenditure RAE for 2009;
 - (b) will, in collaboration with the EMSD and the GLD, work out by the third quarter of 2009 an objective methodology of determining the number of ambulances to be replaced; and
 - (c) has generally agreed to implement other audit recommendations in paragraphs 6.11 and 6.21 of the Audit Report;

- urges:
 - (a) the Secretary for Security to critically review the provision of ambulance resources to the FSD, to ensure that it can maintain a high level of availability of ambulances and ambulance crew to cope with the future increase in emergency calls, and report the result of the review to the Panel on Security; and
 - (b) the Director of Fire Services to:
 - (i) in consultation with the FSTB and, in collaboration with the GLD and the EMSD, review the mechanism for the replacement of ambulances, having regard to the special function of ambulances, and report the findings of the review to the Panel on Security;
 - (ii) review the existing methodology of estimating the number of additional ambulances required to meet the projected increase in emergency calls, taking into account the availability of the ambulance fleet and the actual average time taken to handle an emergency call;
 - (iii) make forward planning and ensure that the problems brought about by ageing ambulance fleet will not recur several years later, given that most of the ambulances were approved for replacement in the 2007 and 2008 RAEs; and
 - (iv) strengthen its internal information and resource management functions through staff training and engaging professional assistance (e.g. the Efficiency Unit and/or the Treasury) where appropriate, so that the FSD management can make effective use of the management information (including the availability, utilisation and reliability of ambulances) to better substantiate its request for resources, and proactively formulate strategic measures to enhance the efficiency and effectiveness of the emergency ambulance service; and

Follow-up action

- wishes to be kept informed of:
 - (a) the measures taken by the FSD to facilitate and ensure the optimal deployment of emergency ambulance resources;
 - (b) the progress made in implementing the electronic ambulance journey records;

- (c) the measures taken to step up efforts to encourage the public's proper use of the emergency ambulance service;
- (d) the definite timetable and the result of the review of the 12-minute target response time for the emergency ambulance service;
- (e) the progress made in identifying suitable sites in the NT Region for constructing additional ambulance depots;
- (f) the result of the review of the allocation of ambulance resources among individual divisions;
- (g) the result of any review on the provision of resources for the FSD to maintain the availability of the ambulance fleet at a level that can meet the public expectation;
- (h) the result of any review on the appropriateness of the FSD's joining the MCRP for its ambulances and reactivating refurbished ambulances for rescue operations;
- (i) the progress made in keeping and making use of management information on the breakdown and maintenance history of individual ambulances;
- (j) the result of any comprehensive review of the causes and consequences of the increase in breakdowns;
- (k) the measures taken to minimise the frequency of breakdowns and enhance the availability and reliability of the ambulance fleet;
- (l) the result of the SB's review on the provision of ambulance resources to the FSD;
- (m) the result of the review of the mechanism for the replacement of ambulances, having regard to the special function of ambulances;
- (n) the result of the review of the existing methodology of estimating the number of additional ambulances required to meet the projected increase in emergency calls;
- (o) the progress made in planning for the replacement of ambulances in future to ensure that the problems brought about by the ageing ambulance fleet will not recur;

- (p) the measures taken to strengthen the FSD's internal information and resource management functions; and
- (q) the progress made in implementing other audit recommendations.