

Letterhead of GOVERNMENT SECRETARIAT

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(Urgent by Fax)

2 June 2000

Clerk to LegCo Panel
(Attn: Mrs Sharon Tong)
Legislative Council Building
8 Jackson Road
Hong Kong

Dear Mrs Tong,

LegCo Panel on Security
Subcommittee on Emergency Ambulance Service

Meeting on 23 May 2000

At the above meeting, Members requested supplementary information which is now attached as follows:

- Enclosure I - Technical Indicators for Different Ranks of Ambulancemen;
- Enclosure II - Possible Staffing and Financial Implications for Achieving a 10-minute Response Time Target; and
- Enclosure III - Performance Targets of Emergency Ambulance Service in Overseas Cities.

We will keep you informed as and when outstanding responses in Enclosure III are made available. The Chinese translation will follow as soon as possible.

Yours sincerely,

(David Wong)
for Secretary for Security

c.c. DFS (Attn : Mr Charles Chu - Fax 2369 0941
Mr MAK Kwai-pui - Fax 2739 3737)

**Technical Indicators
for Different Ranks of Ambulancemen**

(A) Basic Training

(1) Ambulancemen (Ambm)

All Ambm newly recruited will receive 24-week initial residential training in Fire Services Ambulance Command Training School. The qualification of Initial Training they obtain is equivalent to the EMA-I level of Justice Institute of British Columbia, Canada. At the end of the course, the trainees will be able to perform Ambm's duty which includes:

- (a) Patient assessment
- (b) Application of the following ambulance aid techniques to treat emergency patient at scene:
 - Airway management
 - CPR
 - Management of trauma
 - Fracture management
 - Spinal immobilization
 - Treatment of medical emergencies
 - Basic mountain rescue
- (c) Use and maintenance of equipment such as :
 - Oxygen apparatus
 - Resuscitation equipment
 - Entonox analgesic apparatus
 - Automatic External Defibrillator
 - Splints
 - Dressing and bandages
 - Stretcher
 - Carrying chair

(d) Application of departmental procedures in field rescue operation and patient conveyance.

(2) Senior Ambulancemen (SAmbm)

This post is a promotion rank of Ambm who has at least 5 years of service and SAmbm Certificate.

SAmbm assumes the role of an ambulance supervisor. Apart from having the ambulance aid knowledge and skill of an Ambm, all SAmbm will receive a 2-week NCO Command Course which emphasizes on leadership, management and supervision training.

(3) Principal Ambulancemen (PAmbm)

PAmbm is the promotion rank for SAmbm. They also act as ambulance supervisor while discharging their operational duty. In addition, they assume the duty of watch-in-charge in one of the 5 watches in each Ambulance Depot.

(B) Paramedic Training

(1) Emergency Medical Assistant (EMA) II Training

Selected Ambulance Supervisors (SAmbm and PAmbm) who possess the requisite qualification are nominated to attend EMA-II Programme.

The whole EMA training programme lasts for 20 weeks. First, through self-learning, ambulance personnel who are selected for the EMA-II training will spend 4 weeks studying the EMA initial training material.

Then they move on to the EMA-II preparatory workshop which lasts for 2 weeks. The course emphasizes equally on theory and practice. If they pass both the written and practical examinations, they can continue to take the EMA-II pre-course reading by self-study which lasts for 6 weeks. After that, they can start on the EMA-II course which also last for 6 weeks.

Important theory lessons are taught by experienced emergency physicians. Besides learning theories, the trainees also have strenuous practical training on patient assessment model and protocols.

Finally, those who pass both the written and practical examinations are placed in hospitals to start practical training which lasts for 2 weeks. They will gain more knowledge and experience on patient diagnosis, usage of drugs, intravenous and

intramuscular injection techniques under the instruction of professional medical staff.

At the end of the programme, they will be able to perform paramedic skills including:

- Comprehensive patient assessment
- Cardiac care by CPR and defibrillation
- Intravenous injection
- Intramuscular injection
- Use of selected drugs

This technical qualification is equivalent to EMA-II training conducted by the Justice Institute of British Columbia, Canada.

(2) Continuous training

All qualified EMA-II ambulance supervisors are required to attend a 2-week Re-certification Programme every 3 years in order to review their paramedic skills and monitor their standard of performance. Part of the theory lessons is also taught by doctors. EMA-IIs must pass both the written and practical examinations before they are allowed to carry on providing EMA-II techniques to patients.

In between the re-certification programmes, a 3-day Continuous Medical Education course will be conducted to update their knowledge on new protocol, newly introduced equipment and case study to clarify any problem or doubts in carrying out paramedic duties.

In addition, related paramedic short courses such as advanced airway management will be held to teach the EMA-II supervisors on using Laryngeal Mask Airway (LMA) and Combitube to maintain an open airway on cardiac arrest patient.

(3) Upgrading all ambulance supervisor to EMA-II level

A comprehensive review by the Fire Service Department on the provision of paramedic ambulance service is currently underway. The feasibility of upgrading all ambulance supervisors to EMA-II level is one of the areas the review will look into. A review report will be ready by the end of September 2000.

(C) In-service Training Courses

(1) Ambulance Aid Motor Cycle (AAMC) Course

Selected ambulance supervisors who possessed valid motorcycle driving licence and interested in AAMC driving duty will attend a 3-week AAMC driving course. After that, they will attend a specially designed 2-week training course i.e. AAMC Special Course, focusing on using of AAMC equipment and on reinforcing their skill on Airway Management, control of haemorrhage and procedures of attending major incidents.

The AAMC riders will be serving as a speedy responder to scene of critical cases involving, for example, traffic accident, cardiac arrest, severe trauma and unconscious patient.

(2) Other Technical Courses

Hospital Training : Ambulance Supervisors are selected to attach to hospital to gain clinical experience on patient assessment, nursing of chronic patient and resuscitation of critical patient during the 4-week attachment.

Mountain Rescue Course : All ambulance personnel are required to attend a one-day mountain rescue course to receive training on basic mountain rescue skills

Driving : Various driving courses are held to provide Ambm with the relevant qualification as appropriate.

Command Instructor Course: PAmbm are selected to attend the course and qualified as Ambulance Command Instructor in order to deliver lessons and conduct practical sessions to ambulance personnel in a systematic and effective way.

(3) Refresher Training

A structured 2-week refresher training to be attended by all ranks of ambulancemen in every 3-4 years. The objective of this training course is to update ambulance personnel on revised ambulance protocols, use of new equipment, new pre-hospital care techniques, new operational procedures, etc.

(4) Training at Depot / Station

Periodical training is conducted at depot/ station to update ambulance personnel on new procedures, use of new equipment and techniques.

**Possible Staffing and Financial Implications
for Achieving a 10-minute Response Time Target**

Based on the modeling and simulation techniques of the ORH consultancy, assuming the existing level of demand for emergency ambulance service and the existing service target, i.e. having 92.5% of emergency calls responded within the target response time, possible staffing and financial implications for reducing the response time target from 12 minutes to 10 minutes are as follows.

(A) Additional ambulances required:

In 2000/01	Present Establishment [^]	Projected Total Requirement	Additional Ambulances
Day shift	185	213	28
Night shift	104	116	12
Total shift	289	329	40

[^] Excluding ambulances for off-shore islands and emergency reserves.

(B) Additional Resources required for (A):

- i) Estimated Staff cost for 40 additional ambulances (or shifts) = \$54.2M
40 shifts x 6.067 posts per shift = 243 posts
(including 81 senior ambulancemen & 162 ambulancemen posts)
- ii) Estimated Vehicle & Equipment cost for 28 additional ambulances = \$45.08M
Capital cost: \$1.3M x 28 = \$36.4M
Recurrent cost : \$0.31M x 28 = \$8.68M
- iii) Estimated Total Initial Cost = **\$99.28M**

(C) Additional Accommodation/ Mobilizing Points required:

- i) 3 new locations on Hong Kong Island: Chai Wan*, North Point* (Braemar Hill) & Sheung Wan*.
- ii) 3 new locations in Kowloon: Kowloon Tong*, Mongkok* & Sau Mau Ping.
- iii) 2 locations in the New Territories: Kwai Chung* & San Tin.

** These locations are also identified by the ORH consultant as strategic points for ambulance deployment. Planning work for these depots is underway.*

(D) Additional Resources required for (C):

Estimated cost for 8 additional ambulance depots = **\$382.53M**

Capital cost: \$46M x 8 = \$368M

Recurrent cost: \$1.816M x 8 = \$14.53M

(E) Possible Staffing and Financial Implications for Improving the Response Time Target from 12 minutes to 10 minutes :

(B) + (D) = \$481.81M

Performance Targets in Overseas Cities

Cities	Service Target Quoted by Ambulancemen's Union	
Shanghai	Response Time: 6-8 minutes for urban area 11.5 minutes for rural area	E-mail sent to Adm. Office of Shanghai Medical Emergency Centre to inquire about the service target, pledge and actual achievement of their performance measurement system. Reply stated that they have not adopted any performance measurement system at present.
Japan	Response Time: 6 minutes	Letter sent to Consulate General of Japan (HK) with the same enquiry as above. Reply stated that there is no response time target or performance pledge adopted for ambulance service in Tokyo Fire Department.
Frankfurt	Response Time: 5 minutes	Letter sent to Consulate General of Germany (HK) on the same enquiry. Reply still awaited.*
Houston	No detail given	E-mail sent to Fire Chief and Oi/c Emergency Medical Services Command of Houston Fire Department. Reply still awaited.*

* Findings from Frankfurt and Houston will be forward to the Panel Secretariat once replies have been obtained.