LEGISLATIVE COUNCIL PANEL ON TRANSPORT

Creation of one Chief Engineer and one Chief Systems Manager in Transport Department

PURPOSE

At the Panel meeting held on 16 March 2001, Members noted from the paper on "Application of IT to Transport Management" Government's plan to implement an Intelligent Transport Systems (ITS) Strategy in Hong Kong for the next ten years with an estimated cost of about $3.2 billion. While noting that there is a need for the creation of one Chief Engineer (CE) and one Chief Systems Manager (CSM) in Transport Department (TD) to oversee and steer the planning, design and implementation of the on-going and future ITS projects, Members requested for further details on the proposal. This paper provides Members with supplementary information.

BACKGROUND

2. It is Government's policy to promote wide application of innovation and technology in order to add value to our products and services. To achieve this objective, there are needs for wider application of innovation and technology in order to add value to our transport services. However, in the current organizational structure, TD will not be able to fulfill its functions satisfactorily given the increasingly complex issues relating particularly to the application of information and telecommunication technologies to enhance the safety, reliability, efficiency, user and environmental friendliness of the transport system in Hong Kong. We are lagging behind as compared with other developed countries and some Asian countries such as Japan, Korea and Singapore where ITS is being actively pursued and developed to make transport systems operate more environmental friendly and efficiently at lower cost.

3. In view of the above, TD initiated an in-house ITS Strategy Review Study in May 2000 to develop a long-term ITS deployment plan for Hong Kong. The Study examined the technical, administrative and financial requirements of implementing an ITS Strategy in Hong Kong to ensure that different systems developed under the Strategy are compatible and coordinated with each other, and that seamless integrated services can be provided to all road users effectively and efficiently. After completion of the Study earlier this year, the key findings and

recommendations were presented to Panel Members in the paper on "Application of IT to Transport Management".

4. In order to ensure that the ITS Strategy would be implemented smoothly and effectively, we have to closely monitor and properly manage the action plan including programmes for the key projects, associated resource requirements, division of responsibilities, collaboration among concerned parties and other related issues. We need a directorate officer dedicated to these tasks by giving professional advice and direction on what would be the best and appropriate options for Hong Kong. He will provide guidance for the detailed designs of the proposed applications/systems including functional and operational requirements, system specifications, interfacing standards, provisions for integration and data exchange. Moreover, he has to develop programmes for delivering the key projects and promoting the application of ITS in Hong Kong by both Government and the private sector in the coming years.

5. Close liaison and co-ordination with other Government Departments, transport operators, system suppliers/integrators and service providers at directorate level are required to agree upon the division of responsibilities, to encourage and facilitate collaboration for research & development and provision of services, and most importantly to avoid any duplication and waste of effort among concerned parties. The proposed CE post will represent TD at forums and committee meetings to explain project related issues, coordinate and liaise with other branches within the Department as well as external consultants, organizations, agents and the general public to resolve any issues related to the development and implementation of ITS in Hong Kong. Such actions would be required continuously for facilitating the implementation of the key projects.

6. Guidance from a directorate officer is also required to follow-up on other related issues such as institutional arrangement, legislative requirements, protection of intellectual property, privacy etc. The proposed CE post will take follow-up actions required for proper implementation of the ITS projects in the pipeline and other potential ITS applications. In addition, public acceptance is essential for the success of the proposed ITS Strategy. Adequate consultation is required in promoting the strategy, delivering the key projects and resolving the related issues as stated above. The proposed CE post will be responsible for overseeing and steering the implementation of all on-going and future ITS projects, and consulting District Councils, Transport Advisory Committee, LegCo

Panel on Transport and other concerned parties on the proposed ITS Strategy and key projects on a continuous basis.

7. The volume, complexity and commercial sensitivity of the ITS related tasks have grown tremendously as a result of developments over the past years. Rising expectations from both the public and commercial sectors for using new advanced technologies to improve the effectiveness of the transport system and hence the competitiveness of the Hong Kong economy have posed great demands for the enhancement of existing and provision of new ITS services. Queries on related subjects will have to be answered promptly and inputs at directorate level are essential to avoid any confusion or misunderstanding.

8. On the other hand, Transport Department had also conducted an Information Systems Strategy Study (ISSS) in 2000 that recommended, in light of the policy and operation of TD and the likely technological options and resource constraints, an Information Systems (IS) Strategy to meet TD's information needs from 2001 to 2005 and beyond. The Study provided a strategy that will align IS in support of our business goal of providing the World's Best Transport System. It recommended that the major projects in the pipeline including the TIS, TMIC and VALID Repository for licensing system should form the baseline of the strategy for the next few years. Document management, knowledge management, automatic permit processing, human resources management and coordinating road works across departments were identified as possible quick wins for implementation in the next two years. In addition, another eighteen new initiatives for better planning, better regulating, better services, better administration and better partnership were recommended for further consideration and staged development from 2002 to 2005. The successful implementation of the IS Strategy will enable TD to transform its internal business operations and to deliver public services through electronic means in meeting the e-Government policy.

9. In order to implement the above IS Strategy, a directorate officer competent in information technologies and project management is required to establish the organizational and system requirements for employing information technology to enhance the business processes of TD. Currently, the IS support organization in TD is fragmented. The management and control of IS within TD are dispersed. The staff under the Information Technology Services Department mainly provided support to the maintenance and operation of VALID licensing system. Our own staff in Computer Services Section provided IS services for the remaining administrative computer system. There is limited complement of IS

professionals, tools, methods or practices to plan and implement major IS related projects. The IS support structure is not adequately resourced or positioned to provide information technology enabled change across the whole of the Department. With the wider application of information technology to enhance the business processes of TD and in the development of ITS, IS is fundamental to TD's future. Indeed, their dependency on IS will increase. A sound and well organized IS delivery and service structure will assist TD in meeting its vision. Accordingly, the ISSS recommended that TD should form an IS organization that can plan, monitor and control the significant IS investment on the IS related projects.

10. The above task requires an officer with extensive administrative and managerial experience in the deployment and usage of information technology, business process re-engineering and related skills. We need a directorate officer at Chief Systems Manager rank with the technical competency and capability dedicated to providing professional IS advice and direction to the TD's senior management in meeting the IS needs of TD and what would be the best and appropriate information technology for the transport systems of Hong Kong. The CSM will provide IS guidance and support at directorate level for the implementation of the IS Strategy, quick wins and new initiatives recommended in the ISSS and the on-going support of IS related services. The CSM will also provide the IS technical expertise and advice to all IS related projects in the pipeline including the TIS, TMIC and VALID Repository. The proposed CSM will represent TD at various forums and project steering committees to provide information technology advice, coordinate and liaise with other branches within TD as well as other departments, organizations, business partners and general public to resolve any issues related to the development and implementation of IS Strategy for TD.

11. It should be noted that the duties of the proposed CE and CSM posts are very different in nature. They require professional experience and knowledge in traffic engineering and information systems technology respectively. The CSM post will be fully engaged in the planning and implementation of IS initiatives within TD and is therefore unable to take up any duties in relation to the implementation of the ITS Strategy which will involve other Government Departments, transport operators, system suppliers/integrators and service providers on a wide range of issues as described above. However, the CSM will provide advice to the CE regarding issues on IS technology and management.

12. We are proposing the CSM post for 3 years to develop our initial plans for IS in Transport Department. During that time we will consider further how our information technology function should be delivered in the future, including the balance between in-house resources and contracted staff.

PROPOSAL

13. We propose to strengthen the directorate structure of the Technical Services Branch of TD by –

(a) creating one supernumerary post of Chief Engineer (CE) (D1) for a period of five years to oversee the increasingly complex issues relating particularly to the application of ITS, i.e. the deployment of advanced technologies to enhance the safety, reliability, efficiency, user and environmental friendliness of the transport system in Hong Kong; and

(b) creating one supernumerary post of Chief Systems Manager (CSM) (D1) for a period of three years to assist in the formulation of the IS Strategy, to advise on the effective use and management of information technology and to oversee the implementation of the IS Strategy and the on-going support of IS related services.

14. The proposed CE and CSM posts will report to the Assistant Commissioner/Technical Services (AC/TS). The existing and proposed organization chart of the Technical Services Branch is shown at Enclosure 1 and the job descriptions of the proposed CE and CSM posts are at Enclosures 2 and 3 respectively.

15. We have also examined critically the possibility of assigning the responsibilities to other divisions but consider this not to be feasible as all of them are full occupied on other equally important tasks.

THE WAY FORWARD

16. We plan to consult the Establishment Sub-Committee on 23 May 2001 and will seek the approval of the Finance Committee on 8 June 2001 for the creation of the proposed CE and CSM posts.

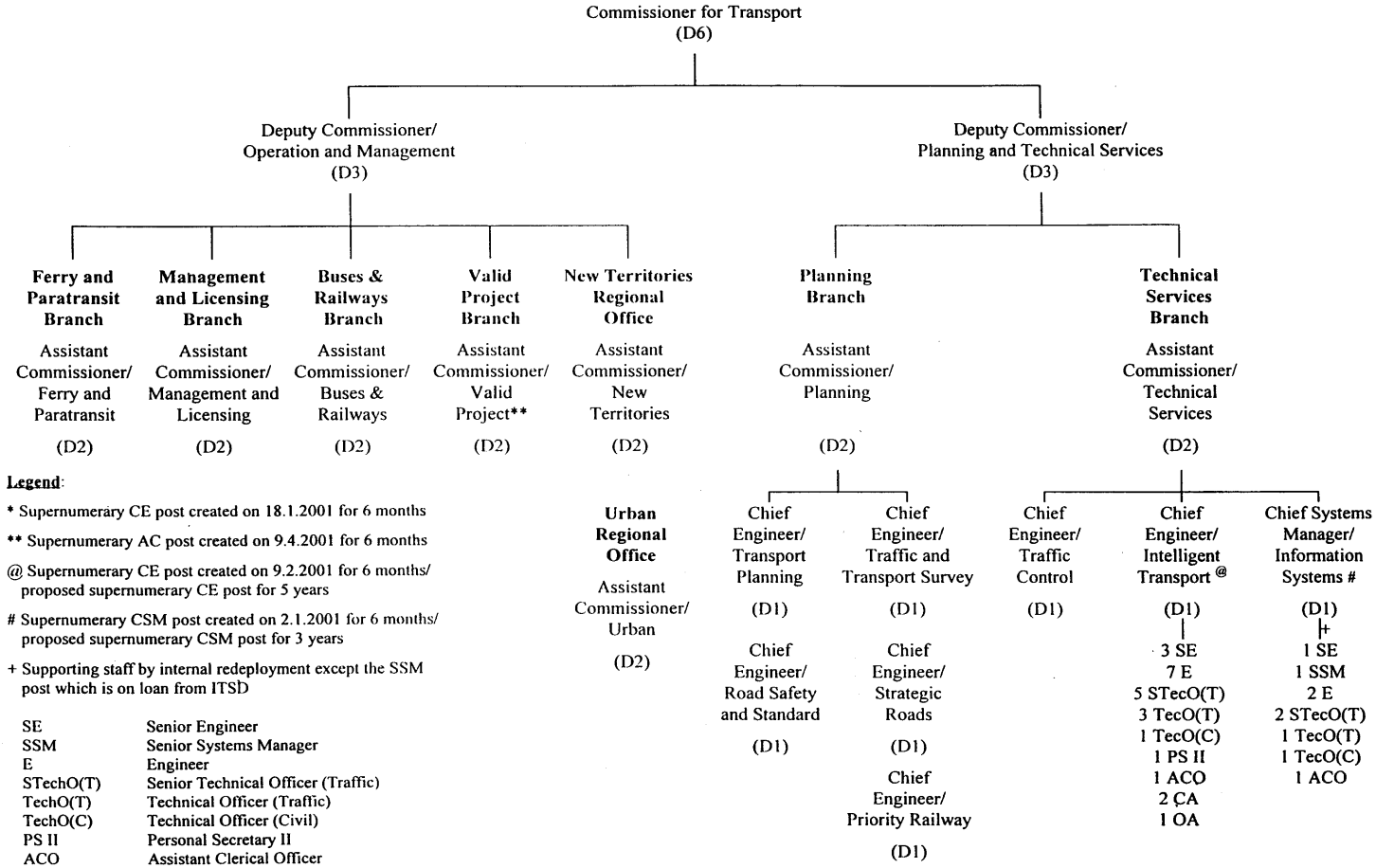
ADVICE SOUGHT

17. Members are invited to provide comments on the above proposal.

Government Secretariat
Transport Bureau
TRAN 3/11/94 Pt 3
21 April 2001

Enclosure 1

Existing and Proposed Organisation Chart of the Technical Services Branch of Transport Department



Legend:

* Supernumerary CE post created on 18.1.2001 for 6 months

** Supernumerary AC post created on 9.4.2001 for 6 months

@ Supernumerary CE post created on 9.2.2001 for 6 months/ proposed supernumerary CE post for 5 years

\# Supernumerary CSM post created on 2.1.2001 for 6 months/ proposed supernumerary CSM post for 3 years

\+ Supporting staff by internal redeployment except the SSM post which is on loan from ITSD

SE	Senior Engineer
SSM	Senior Systems Manager
E	Engineer
STechO(T)	Senior Technical Officer (Traffic)
TechO(T)	Technical Officer (Traffic)
TechO(C)	Technical Officer (Civil)
PS II	Personal Secretary II
ACO	Assistant Clerical Officer
CA	Clerical Assistant
OA	Office Assistant

Enclosure 2

Job Description for the Chief Engineer

Rank: Chief Engineer (D1)

Responsible to: Assistant Commissioner for Transport/Technical Services (D2)

Duties and Responsibilities -

1. Promote and execute action plans for implementing the key projects under the proposed Intelligent Transport Systems (ITS) Strategy;

2. Promote the development of ITS applications through public/private collaboration;

3. Provide guidance for the implementation of the key projects under the proposed ITS Strategy including Transport Information System, Traffic Management and Information Centre and Journey Time Indication System;

4. Co-ordinate and liaise with other branches in Transport Department, other Government Departments, transport operators, system suppliers/integrators and service providers for the implementation of the key projects;

5. Prepare RAE bids for new initiatives of ITS applications;

6. Plan for and implement the provision of Traffic Control and Surveillance facilities on the existing Strategic Road Network;

7. Provide traffic engineering input for the development of information technology in Transport Department; and

8. Administer and direct the activities of the Intelligent Transport Division.

9. Consult Transport Advisory Committee, Legislative Council Panel on Transport and other concerned parties, and attending meetings as necessary, on the recommendations of the ITS Strategy Review;

Enclosure 3

Job Description for the Chief Systems Manager

Rank: Chief Systems Manager (D1)

Responsible to: Assistant Commissioner for Transport/Technical Services (D2)

Duties and Responsibilities -

1. Provide advice on all Information Systems (IS) related technical and policy matters and technology management in TD;

2. Plan and co-ordinate IS budget, resources and activities for TD to ensure all activities are properly coordinated and all IS practices are correct and appropriate to TD;

3. Be responsible for the development and implementation of new systems and the effective use and maintenance of existing systems;

4. Oversee the implementation of and support to the TD IS infrastructure in accordance with government and TD policy and standards;

5. Co-ordinate IS planning and advice on IS architecture to ensure architectural compliance, maintenance of architectures, standards, principles, IS policies and the overall technical integrity of IS;

6. Liaise with TD's commercial and government partners in development of Electronic Services Delivery and other IS initiatives;

7. Provide IS experts advice to all transport related projects in the pipeline including TIS, TMIC and VALID Repository; and

8. Administer and direct the Information Systems Division to provide operational and technical IS services and support to other branches in TD.