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Panel on Transport

Meeting on 26 May 2014

**Background brief on Area Traffic Control and Closed Circuit
Television systems for Tai Po and North Districts**

Purpose

This paper provides background information on Area Traffic Control ("ATC") Control and Closed Circuit Television ("CCTV") systems for Tai Po and North Districts. It also summarizes the major views and concerns expressed by the Legislative Council ("LegCo") Members during previous discussions on installation or replacement of ATC and/or CCTV systems in urban areas and new towns in the New Territories.

Background

Existing ATC and CCTV systems

2. According to the Administration, ATC system provides real-time coordination and adjustment of traffic control signals within an area by computers having regard to changes in traffic flow level. The objectives are to maximize the use of road capacities and minimize delay to traffic. Besides, CCTV system provides traffic operators at the control centre of the Transport Department ("TD") with real time traffic information from CCTV cameras installed at strategic locations thus allowing quick remedial actions to be taken when necessary to cope with the abnormal traffic conditions and/or traffic incidents.

3. Since the 1970's, TD has been expanding the coverage of ATC system to all urban areas and new towns in the New Territories, including Tsuen Wan, Kwai Tsing, Sha Tin, Ma On Shan, Tai Po, North Districts, Tuen Mun, Yuen Long and Tseung Kwan O. The system provides better coordination of traffic lights at road intersections to help motorists and

pedestrians cross roads and junctions safely and efficiently. According to the Administration¹, there are about 1 821 signalized junctions in the territory of which 1 719 are under ATC, with 447 CCTV cameras to monitor the traffic conditions at these junctions in March 2012.

ATC and CCTV systems for Tai Po and North Districts

4. In 2001, the Administration proposed to upgrade 17TC (ATC and CCTV systems for Tai Po and North Districts) to Category A at an estimated cost of \$97.2 million in money-of-the-day prices for the implementation of ATC and CCTV systems for Tai Po and North Districts to bring about more efficient use of limited road space.

5. According to the Administration's proposal in March 2001 [LC Paper No. PWSC(2001-02)8], with the introduction of ATC system in Tai Po and North Districts, all traffic signal controllers in the areas would be connected to a central computer in Tsuen Wan. The system would help to reduce the number of vehicle stops and shorten journey time for motorists. In particular, the system would enable central adjustment of traffic signal timing to suit actual traffic conditions; better co-ordination of traffic signals operation to minimize the number of signal-controlled stops for motorists; and rapid identification of malfunctioning traffic signals.

6. In addition, the installation of a CCTV system in Tai Po and North Districts would enhance the efficiency of ATC system. The system consisting of 30 CCTV cameras was installed at key locations and linked primarily to ATC Control Centre in Tsuen Wan and the Traffic Police Control Centres. This would provide operators in ATC control room with real time visual images of traffic conditions and allow quick remedial action to be taken when necessary.

7. The funding proposal for the implementation of ATC and CCTV systems for Tai Po and North Districts was approved by the Finance Committee at its meeting on 25 May 2001. According to the information provided by the Administration², ATC and CCTV systems were expanded to Tai Po and North Districts in 2005.

¹ Source: TD's website

(http://www.td.gov.hk/en/transport_in_hong_kong/its/its_achievements/area_traffic_control_systems/index.html)

² Source: The Administration's paper on "Projects relating to Area Traffic Control and Closed Circuit Television Systems" issued in May 2007 [LC Paper No. CB(1)1710/06-07(01)]

Concerns of LegCo Members

8. Members of the Panel on Transport were briefed on the installation or replacement of ATC and/or CCTV systems for Tai Po and North Districts in March 2001; Hong Kong Island in October 2002; Tuen Mun and Yuen Long in April 2005; and Kowloon, Tsuen Wan, Sha Tin and Tseung Kwan O in May 2007. Members of the Public Works Subcommittee ("PWSC") of the Finance Committee expressed views on the above projects at the meetings on 18 April 2001, 13 November 2002, 11 May 2005 and 20 June 2007. A Member raised a relevant question at the Council meeting on 1 March 2006. Their major concerns are summarized in the ensuing paragraphs.

Effectiveness of ATC and CCTV systems

9. At the PWSC meeting on 11 May 2005, members noted the serious traffic congestion affecting east Kowloon and other areas of the territory on 9 May 2005 and expressed concern about the effectiveness of ATC and CCTV systems in use. They urged the Administration to examine critically the effectiveness of those systems for managing traffic situations in various districts, such as Tuen Mun and Yuen Long.

10. Sharing similar concern with PWSC members, a Member raised a question on the application of information technology in traffic management at the Council meeting on 1 March 2006. In response, the Administration advised that TD had implemented the recommendations in the Report of the Task Force on Emergency Transport Coordination regarding application of information technology in traffic management after the serious traffic accident on 9 May 2005. The details of the actions completed or in progress included enhancing the use of ATC system to adjust traffic signals for effective queue management and dissipation; installing additional CCTV cameras at strategic locations along major routes in phases to enlarge the coverage of CCTV system; and implementing a full-scale trial of mobile CCTV system.

Privacy concern

11. Members at the PWSC meetings on 18 April 2001 and 20 June 2007 expressed concern about the privacy implications of CCTV system. In this connection, they urged the Administration to establish a proper mechanism to prevent abuse of CCTV system and safeguard the privacy of road users and other affected individuals. In response, the Administration explained that information collected from CCTV system would be used to facilitate better traffic management and allow quick remedial actions to be taken when necessary to cope with abnormal traffic conditions and/or

incidents. The images on display on TD's website were fed by CCTV cameras pre-set to collect real time traffic information at a fixed wide angle but would not identify any individual or number plate. Furthermore, the images captured from CCTV system would not be recorded as they would only be used for traffic control and surveillance purposes.

Impact of the relevant civil works

12. At the meetings on 13 November 2002 and 11 May 2005, PWSC members noted that the works projects for installation or replacement of ATC and/or CCTV systems would last for quite a long period of time and involve extensive area to be covered by the systems. As such, they expressed concern about the impact of the civil works on road traffic during the works period and requested the Administration to implement mitigation measures to minimize the impact. In response, the Administration assured members that the contractors would be required to carry out the civil works involving opening of roads outside the peak hours and put in place necessary mitigation measures to minimize the impact on pedestrian and vehicular traffic during the civil works.

Dissemination of traffic information

13. At the PWSC meetings on 18 April 2001, 11 May 2005 and 20 June 2007, members expressed concern about the importance of timely dissemination of traffic information to drivers on the road so that they could be kept abreast of the latest traffic incidents or abnormal traffic conditions and re-route their trips accordingly. In response, the Administration advised that they would continue facilitating the dissemination of traffic information through new technologies, such as global positioning system installed in vehicles.

Latest development

14. The Administration plans to seek support of the Panel on Transport for the funding application for taking forward the replacement of ATC system for Tai Po and North Districts. The Administration will brief members the details of the funding application at the Panel meeting to be held on 26 May 2014.

Relevant papers

15. A list of relevant papers is in **Appendix**.

Council Business Division 1
Legislative Council Secretariat
20 May 2014

**Area Traffic Control and Closed Circuit Television systems for
Tai Po and North Districts**

List of relevant papers

Date of meeting	Meeting	Minutes/Paper	LC Paper No.
--	Panel on Transport	Administration's paper on Area Traffic Control systems for Tai Po and North Districts	CB(1)912/00-01 http://sc.legco.gov.hk/sc/www.legco.gov.hk/yr00-01/english/panels/tp/papers/a912e.pdf
30.3.2001	Panel on Transport	Minutes	CB(1)1687/00-01 http://www.legco.gov.hk/yr00-01/english/panels/tp/minutes/tp300301.pdf
18.4.2001	Public Works Subcommittee of Finance Committee	Administration's paper on 17TC – Area Traffic Control and Closed Circuit Television systems for Tai Po and North District	PWSC(2001-02)8 http://www.legco.gov.hk/yr00-01/english/fc/pwsc/papers/p01-08e.pdf
		Administration's paper on supplementary information on 17TC – Area Traffic Control and Closed Circuit Television systems for Tai Po and North Districts	PWSC(2001-02)5 http://www.legco.gov.hk/yr00-01/english/fc/pwsc/papers/pi01-5e.pdf
		Minutes	PWSC119/00-01 http://www.legco.gov.hk/yr00-01/english/fc/pwsc/minutes/pw180401.pdf

Date of meeting	Meeting	Minutes/Paper	LC Paper No.
--	Panel on Transport	Administration's paper on renewal of Hong Kong Area Traffic Control and Closed Circuit Television systems provided by the Administration	CB(1)126/02-03(01) http://www.legco.gov.hk/yr02-03/english/panels/tp/papers/tp1025cb1-126-1e.pdf
25.10.2002	Panel on Transport	Minutes	CB(1)307/02-03 http://www.legco.gov.hk/yr02-03/english/panels/tp/minutes/tp021025.pdf
13.11.2002	Public Works Subcommittee of Finance Committee	Administration's paper on 18TC – renewal of Hong Kong Area Traffic Control and Closed Circuit Television systems	PWSC(2002-03)65 http://www.legco.gov.hk/yr02-03/english/fc/pwsc/papers/p02-65e.pdf
		Minutes	PWSC36/02-03 http://www.legco.gov.hk/yr02-03/english/fc/pwsc/minutes/pw021113.pdf
--	Panel on Transport	Administration's paper on Area Traffic Control and Closed Circuit Television systems for Tuen Mun and Yuen Long	CB(1)1297/04-05(01) http://www.legco.gov.hk/yr04-05/english/panels/tp/papers/tp0422cb1-1297-1e.pdf
22.4.2005	Panel on Transport	Minutes	CB(1)1833/04-05 http://www.legco.gov.hk/yr04-05/english/panels/tp/minutes/tp050422.pdf

Date of meeting	Meeting	Minutes/Paper	LC Paper No.
11.5.2005	Public Works Subcommittee of Finance Committee	Administration's paper on 19TC – Area Traffic Control and Closed Circuit Television system for Tuen Mun and Yuen Long districts	PWSC(2005-06)1 http://www.legco.gov.hk/yr04-05/english/fc/pwsc/papers/p05-01e.pdf
		Minutes	PWSC77/04-05 http://www.legco.gov.hk/yr04-05/english/fc/pwsc/minutes/pw050511.pdf
1.3.2006	Council meeting	Hon SIN Chung-kai raised a question on application of information technology in traffic management	http://www.info.gov.hk/gia/general/200603/01/P200603010188.htm
--	Panel on Transport	Administration's paper on projects relating to Area Traffic Control and Closed Circuit Television systems	CB(1)1710/06-07(01) http://www.legco.gov.hk/yr06-07/english/panels/tp/papers/tp0525cb1-1710-1-e.pdf
25.5.2007	Panel on Transport	Minutes	CB(1)2021/06-07 http://www.legco.gov.hk/yr06-07/english/panels/tp/minutes/tp070525.pdf

Date of meeting	Meeting	Minutes/Paper	LC Paper No.
20.6.2007	Public Works Subcommittee of Finance Committee	Administration's paper on: <ul style="list-style-type: none"> - 21TC – provision of traffic control and surveillance facilities for existing strategic roads - 22TC – replacement of Area Traffic Control and Closed Circuit Television systems for Kowloon, Tsuen Wan and Sha Tin and expansion of the systems to Tseung Kwan O - 23TC – provision of facilities for traffic incident management and traffic information dissemination in the urban areas and their vicinities 	PWSC(2007-08)41 http://www.legco.gov.hk/yr06-07/english/fc/pwsc/papers/p07-41e.pdf
		Minutes	PWSC100/06-07 http://www.legco.gov.hk/yr06-07/english/fc/pwsc/minutes/pw070620.pdf