

LCQ18: Traffic congestion on the three road harbour crossings

Following is a question by the Dr Hon Lam Tai-fai and a written reply by the Secretary for Transport and Housing, Ms Eva Cheng, at the Legislative Council meeting today (March 3):

Question:

In its paper submitted to the Panel on Transport of this Council in November 2008, the Government has indicated that the traffic distribution among the three road harbour crossings ("RHCs") is uneven, and there is room for improvement. One of the major causes of uneven distribution is the difference in toll levels of the three RHCs. Moreover, quite a number of members of the public have relayed to me that congestion occurs in north bound and south bound traffic at the Cross-Harbour Tunnel ("CHT") every morning and evening, and it has not only resulted in longer journey time but has also aggravated air pollution as it has increased vehicle emissions. In this connection, will the Government inform this Council:

(a) of the respective average daily vehicular flows, as well as the maximum and minimum traffic flows of CHT, Western Harbour Crossing ("WHC") and Eastern Harbour Crossing ("EHC") in each of the past five years, together with a breakdown by vehicle type;

(b) since the implementation of the Journey Time Indication System ("JTIS") at the end of 2003, whether the authorities have reviewed the effectiveness of JTIS, including the accuracy in its estimation of journey time; if they have, of the details; if not, the reasons for that;

(c) whether the Transport Department ("TD") has received complaints about journey time being wrongly estimated by JTIS;

if it has, of the total number of complaints received since the implementation of JTIS and, among such complaints, the maximum and minimum differences in the estimated and actual journey times involved;

(d) whether TD has assessed if the traffic congestion problem at CHT is serious at present, and whether it has studied ways to solve the problem, including formulating time indicator for cross-harbour journeys or other vehicle divergent measures (for example, increasing the number of autotoll lanes); if it has, of the details; if not, the reasons for that;

(e) whether it had, in the past three years, assessed the impact of the traffic congestion problem at the three RHCs on the journey time to work and to school of members of the public, as well as on air pollution, and whether it had assessed the resultant economic losses to Hong Kong (including the impact on the gross value of production of relevant industries and the development of the tourist industry in Hong Kong); if it had, of the details; if not, the reasons for that;

(f) whether it has assessed the impact of the Central-Wanchai Bypass Project, West Kowloon Cultural District Project and the Hong Kong Section of the Guangzhou-Shenzhen-Hong Kong Express Rail Link Project on the traffic at CHT during their construction; whether it will aggravate the traffic congestion problem at CHT; if it has, of the details, and how such problems are to be solved;

(g) whether it has assessed if the traffic congestion problem at the three RHCs can be alleviated after the commissioning of the Shatin to Central Link; if it has, of the details; if not, the reasons for that;

(h) given that the Government indicated in November 2008 that it had commissioned a 12-month consultancy study on the

improvement in traffic distribution among the three RHCs, when the consultancy study will be completed, and whether it will make public the outcome of the study; and

(i) given that the franchises of EHC and WHC will expire in 2016 and 2023 respectively, what factors the Government will consider in deciding whether it will propose buying out or extending their franchises; how the outcome of the consultancy study will affect the Government's decision?

Reply:

President,

(a) A breakdown by vehicle type of the average daily vehicular flow, maximum vehicular flow and minimum vehicular flow of Cross-Harbour Tunnel (CHT), Western Harbour Crossing (WHC) and Eastern Harbour Crossing (EHC) for the past five years is set out in the Annex.

(b to e) According to the data of the Transport Department (TD), currently the average daily vehicular flow of the CHT is about 121,000 vehicle trips, which is higher than its design capacity of 78,000. During peak hours, the hourly vehicular flow of the CHT reaches its saturation point, resulting in relatively long queues at both entrances of the tunnel.

To alleviate congestion at the three road harbour crossings (RHCs), the TD installed the Journey Time Indication System (JTIS) on Hong Kong Island in 2003 to assist motorists to choose a better cross-harbour route and therefore diverting traffic flow. Since August 2005, information collated from the JTIS has been disseminated to the public through an Internet Traffic Speed Map on the TD's website. A before-and-after survey conducted by the TD reveals that the average vehicle speed along the approach roads of RHCs on Hong Kong Island has generally increased

by 4% after the implementation of the JTIS. The TD carried out an opinion survey on the JTIS in 2006 and found that out of the 2,760 motorists who had made cross-harbour trips within one month prior to the survey, over 87% of the interviewees noticed the JTIS, and among them 64% considered that the system helped them choose a cross-harbour route, and over 61% considered that the system also helped them in other aspects, such as estimating the arrival time and the level of congestion. On the whole, the JTIS operates satisfactorily, and makes it more convenient for motorists, facilitates traffic diversion and alleviates traffic congestion.

To ensure normal operation of the JTIS, the TD monitors the system regularly by conducting bi-weekly sample surveys with the data stored in the system and quarterly journey surveys on relevant routes. Since the launch of the JTIS in 2003, the TD has received 25 complaints about inaccurate estimated journey time displayed by the system (2 complaints in 2003, 5 in 2004, 5 in 2005, 3 in 2006, 3 in 2007, 5 in 2008 and 2 in 2009). Among these complaints, the maximum deviation from the actual journey time was 11 minutes and the minimum 3 minutes. Investigations reveal that most deviations were caused by abrupt changes in traffic conditions.

The number of autotoll lanes is generally determined by the utilisation rate of such lanes at the tunnel concerned. According to the TD's study, the existing autotoll lanes can meet the traffic demand, and the stop-to-pay arrangement basically poses no negative effect on the traffic flow of the tunnel. As the vehicular flow of the CHT tubes has already reached the maximum capacity during peak hours, additional autotoll lanes would not allow more vehicles to use the CHT concurrently. As regards assessments of time loss, air pollution, economic implications, etc. caused by congestion, these involve many assumptions and should be premised on alternative options of traffic distribution for comparison.

(f & g) The consultant of the Central-Wanchai Bypass (CWB) project has carried out a traffic impact assessment and formulated measures to alleviate traffic impact during construction. The additional traffic generated from the project will be mainly caused by the transportation of concrete and other construction materials. To reduce the impact on land traffic and nuisance to the public, we will arrange marine transport of some project materials as far as possible. Separately, we have assessed the traffic impact during construction of the West Kowloon Cultural District and Guangzhou-Shenzhen-Hong Kong Express Rail Link in the context of the West Kowloon Reclamation Traffic Study which has been completed recently. Likewise, to reduce the impact on land traffic, some project materials will be transported by sea. We expect that these projects will not create pressure on the traffic flow of the CHT.

In fact, the CWB, upon completion, should have a positive effect on alleviating traffic congestion of the road network on the northern shore of Hong Kong Island and increasing the capacity of the connecting road network of the WHC, thereby contributing to the improvement of traffic distribution among the RHCs.

The Shatin to Central Link (SCL) will become the fourth rail harbour crossing in Hong Kong. It will help alleviate the traffic of the existing cross-harbour Tsuen Wan Line, Tseung Kwan O Line and Tung Chung Line. Some cross-harbour passengers currently using road-base transport will be attracted to the relatively fast and direct railway line. Therefore, we expect that the cross-harbour section of the SCL will have a positive effect on alleviating traffic congestion of the three RHCs.

(h & i) The Government is very concerned about the traffic impact of the heavy utilisation of the CHT and has commissioned consultants to study how the traffic distribution among the RHCs can be improved, with a view to

identifying an option feasible in transport, financial and legal terms. The recommended option should minimise the impact on public expenditure. We expect that the consultancy study will be completed in the first half of 2010.

Having examined in detail the traffic distribution among the three RHCs and analysed the problem, the consultants are of the view that the reasonable toll levels for the three RHCs should be considered carefully. Excessively low tolls will attract heavier vehicular traffic and create pressure on other road networks, while excessively high tolls will not be acceptable to the public. The consultants have also pointed out that given the limited capacity of the existing connecting road networks, if the existing cross-harbour vehicular traffic is substantially diverted to the EHC and WHC, the congestion problem in the vicinity of the CHT during peak hours may be partially shifted to other areas. The consultants will analyse what would be the reasonable toll levels of the RHCs, how to enhance the Government's capability in adjusting tolls of three RHCs, the cost and benefit of such measures, and will make recommendations on these issues to the Government.

The Government will keep an open mind in considering various options that would enable the Government to implement more reasonable toll levels, including buy-back and franchise extension as mentioned in this question. Upon receipt of the consultancy report, we will consider carefully from different perspectives the findings of the study and feasibility of the recommendations. We will share with the public the consultant's recommendations and the Government's considerations, and listen to their views.

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