

LCQ5: Application of intelligent technologies on public transport

Following is a question by the Hon James To Kun-sun and a written reply by the Secretary for Transport and Housing, Ms Eva Cheng, at the Legislative Council meeting today (April 13):

Question:

The Kowloon Motor Bus Company (1933) Limited (KMB) has recently launched a mobile phone application programme which operates with the Global Positioning System (GPS) to provide information to passengers such as "alight reminder". Besides, a number of mainland cities are also developing intelligent technologies for public transport, for example, the use of GPS to enhance the operational efficiency of public transport. The Government has also been developing an intelligent transport system in recent years. In this connection, will the Government inform this Council:

(a) given that the aforesaid application programme launched by KMB has shown that the use of GPS to provide information to passengers is feasible, whether the Government knows if various franchised bus companies are currently exploring the use of GPS to provide passengers with more real-time information, including bus waiting time, estimated travel time in traffic congestion, etc; whether the Government will encourage various bus companies to explore and launch similar services;

(b) given that the Secretary for Transport and Housing indicated in her reply to my question on November 19, 2008 that minibus operators were using an on-board monitoring system operating with GPS on a trial basis with a view to enhancing road safety of minibuses, of the result of the trial scheme; if the trial scheme has yet to be completed, of the current progress; whether the Government has any plan to enhance road safety of minibuses by using other intelligent systems;

(c) given that some universities have announced the successful development of a number of intelligent transport systems suitable for local buses and minibuses in recent years, whether the Government has discussed with the universities concerned collaboration to take forward the relevant researches so as to enhance the efficiency of public transport in Hong Kong;

(d) as it has been reported earlier that the pilot version of the online Driving Route Search Service (DRSS) of the Transport Department (TD) has made mistakes in its route suggestions, and I have learnt that the average visitor count of the website is about 700 per day only, whether the Government will conduct a review on how to enhance DRSS (such as supporting the GPS service) and make it more appealing to users; on the other hand, given that similar free online services (such as the Google Maps) are currently available, whether the Government will conduct a review on the need for retaining DRSS; and

(e) of the Government's plans currently in place for improving the efficiency of various public transport services (including ferry services) by using intelligent technologies; whether TD will develop mobile phone application programmes to disseminate to the public information on sudden traffic incidents (such as interruptions of MTR train services); and how the Government plans to encourage various public transport operators to conduct research and development on related products with a view to upgrading the quality of service?

Reply:

President,

(a) The Government always encourages and welcomes the use of new technologies by franchised bus companies to provide passenger information. The Kowloon Motor Bus Company (1933) Limited (KMB) has recently launched the provision of passenger information through mobile phone applications (apps) for downloading through a designated technical platform of a type of mobile phone locally. According to KMB, apart from providing general bus route information (such as fares, routes, maps and schedules); the apps enable a mobile phone to detect bus-stops within a radius of about 200 metres through the Global Positioning System (GPS), for passengers' convenience. KMB is now studying the feasibility of extending the service to other types of mobile phones. KMB indicated that it has no plan at present to provide other information such as passenger waiting time or estimated duration of traffic congestion.

Besides, Citybus Limited (Citybus) is testing the use of GPS automatic annunciators on its buses. Should the test results prove to be satisfactory, Citybus will consider launching the service. In fact, Citybus has been running the SMS Bus Arrival Time Enquiry Service Trial on Cityflyer route A10 (Ap Lei Chau-airport) through a

mobile network since August 2007. A passenger sending an SMS message to a specified phone number at any of the A10 bus stops will receive an SMS reply on the estimated arrival time of the next A10 bus. A service fee of HK\$1 is payable to the mobile network provider for each enquiry. However, Citybus has no plan to extend this service to other routes because of the low utilisation of the service during the trial.

(b) In 2006, a supplier of vehicle monitoring system carried out a trial on 31 green minibuses (GMBs) serving 11 routes by installing on them an information record device operated with GPS to test whether the system could help GMB operators manage their minibuses for enhancing road safety. Since the results of the trial showed that the system failed to record and transmit information on operational data of a GMB (such as its location, speed and journey time) accurately, the trial was terminated in late 2008.

(c) In 2007, the Transport Department (TD) and the Department of Land Surveying and Geo-Informatics of the Hong Kong Polytechnic University jointly developed the Public Transport Enquiry Service (PTES), a one-stop portal for route search service with map information of multi-modal public transport means (e.g. railways, franchised buses and trams). Upon trial of the pilot version, TD launched the full version of PTES for free public use through the internet (ptes.td.gov.hk) in July 2010. Through this free e-service, the public can search for the most suitable public transport route based on the trip duration, fare, number of interchanges or preferred transport mode.

In addition, the City University of Hong Kong (City U) is developing an advanced safety system for public transport. By tracking the movement of a public transport vehicle, the system can provide real-time traffic information such as the location of the vehicle and its distance to the next stop, for the convenience of passengers of public transport service. City U gave a briefing on the system to TD last year and received feedbacks on its functions and design. TD also helped City U liaise with GMB operators for voluntary participation in City U's trial scheme. TD noted that the trial scheme on passenger information involving about 20 GMBs will commence in mid-2011. TD will monitor the progress of the trial scheme closely.

(d) TD launched a pilot version of the Driving Route Search Service (DRSS) system in April 2010. The system searches for the most suitable route for motorists based on their requirements, such as the shortest distance, the shortest travelling time, or the lowest toll. If the route involves a cross-harbour journey, DRSS will provide

information on routes via various cross-harbour tunnels for comparison. Furthermore, the service also covers various road traffic information, such as the latest special traffic news, special traffic and transport arrangements, "no-stopping" restrictions, vehicle restrictions and information of major car parks, to provide motorists with more information for route selection. Compared with similar services in the market, DRSS can provide real-time traffic data and more comprehensive road information for motorists' reference when planning their trips.

Since the introduction of the pilot version of DRSS, TD has been collecting users' feedback and updating route information to enhance the system. TD will officially launch DRSS in mid-2011 and provide additional information in the system, such as prohibition of turning movement for special types of vehicle, information on prohibited zones and illustrations of major strategic route numbers. A mobile phone version of the system will also be introduced for the public's easy access. At present, the daily visitor count is about 700. We expect that the number will go up after the introduction of the new version.

(e) For the above PTES on the Internet, TD is planning to launch mobile version and mobile phone apps, which are expected to be available for public use in mid-2011.

TD always encourages the public transport sector to enhance their services and efficiency by using intelligent technologies. Apart from the technologies employed by the franchised bus and GMB operators mentioned above, ferry operators have also developed intelligent technology systems having regard to their operating conditions. For example, the Discovery Bay Transportation Services Limited provides free wireless Internet access for passengers on board, and the New World First Ferry Services Limited has installed GPS to monitor the movement of vessels for more efficient response to emergencies and fleet deployment. The "Star" Ferry Company, Limited is also considering providing free mobile phone apps for the public to enquire and download information on its ferry schedules. At present, some taxi operators have installed GPS on their taxis to enhance operational efficiency by providing taxi drivers with the most direct route to a destination.

On the other hand, TD has been disseminating information on emergency traffic incidents through various channels. Apart from electronic media, such information is also uploaded onto TD's webpage for viewing by the public. TD also provides special traffic news to mobile telecommunications companies for dissemination to their users.

The Government will maintain contact with relevant organisations to keep abreast of the latest information on application of technology, and continue to encourage the public transport organisations to participate actively in the test and use of information technology systems which can enhance their services.

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