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Panel on Transport
Meeting on 25 February 2011

**Updated background brief on measures to enhance safety
of public light bus operations**

Purpose

This paper provides background information on the Administration's measures to enhance the safety of public light bus (PLB) operations. It also summarizes the views expressed by members of the Panel on Transport (the Panel) at previous discussions, including the Panel's latest discussion on the subject on 27 November 2009.

Background

2. The accident and casualty rates of PLBs have always been higher than those of other classes of motor vehicles. To address public concerns in this regard, the Administration put forth in late 2004 a package of measures covering legislation, enforcement, publicity, education and technology application to enhance road safety and, in particular, the safety of PLB operations. Those measures that specifically relate to PLBs can be categorized as follows -

- (a) Promotion of safe driving among PLB drivers;
- (b) Measures to combat inappropriate driving behaviours of PLB drivers, such as imposition of a maximum speed limit for PLBs, installation of speed display or speed warning devices on PLBs, use of the vehicle blackbox (i.e. tachograph) to record operation data of PLBs, strengthening enforcement against speeding and other inappropriate driving behaviours of PLBs, etc; and
- (c) Installation of passenger protection equipment, including seat belts and

high back seats, on newly registered PLBs.

Promotion of safe driving among PLB drivers

By education and publicity

3. The Administration has implemented the following measures to improve the driving skills and behaviours of PLB drivers -

- (a) Encouraging PLB drivers to attend continuous in-service training by organizing various refresher training and skill upgrading courses;
- (b) Conducting refresher workshops or seminars for PLB drivers to enhance their awareness of the importance of safe driving;
- (c) Organizing large-scale PLB safety campaigns to enhance the road safety awareness of PLB drivers;
- (d) Distributing regular newsletters to PLB drivers to provide them with the latest road safety information and to remind them to adopt a proper driving attitude;
- (e) Carrying out regular targeted publicity for PLB, taxi and non-franchised bus drivers; and
- (f) Promulgating the PLB Driver Safety Charter.

4. The Administration introduced a PLB Driver Training Programme in 2003 to improve the driving attitude and the customer service skills of PLB drivers. In 2004, the Vocational Training Council developed the programme into an Advanced PLB Driver Training Course under the Skills Upgrading Scheme, and is now running the Course. The Government subsidizes all PLB drivers participating in this Course 70% of the course fee incurred. Since 2005, the Transport Department (TD) has been organizing PLB Driver Safety Workshops jointly with the Police and PLB associations to promote road safety awareness among frontline PLB drivers. As reported at the Panel meeting on 27 November 2009, from January to September 2009, the Police organized 30 talks on better driving attitude of PLB drivers during which they explained to 2 082 professional PLB drivers from 27 PLB operators the relevant legislation and urged them to adopt a safe driving attitude to prevent traffic accidents.

5. TD also organizes a variety of publicity programmes to promote safety

awareness among PLB drivers from time to time. The PLB Driver Safety Charter was launched in March 2005 and again in 2007.

By strengthening the management of drivers through recruitment, management and pay

Recruitment

6. At the Panel meeting on 19 December 2005, some members suggested that repeat traffic offenders should be banned from being PLB drivers. In response to the suggestion, the Administration has examined the following additional entry requirements for applicants for PLB driving licence as a start:

- (a) Requiring applicants for the PLB licence to attend pre-service training courses that focused on driving behaviour and attitude; and
- (b) Banning drivers who have been convicted of traffic offences repeatedly or whose driving licences were suspended within a specified period (say, three to five years prior to their application for PLB licence) from applying for the PLB licence.

7. As the PLB trade is generally supportive of the above suggestions, the Administration has indicated that it has been formulating detailed proposals in this regard and would submit the relevant legislative proposals in due course. At the Panel meeting on 27 November 2009, members were briefed on the Administration's plan to introduce a proposal into the Legislative Council (LegCo) in the 2010-2011 session to amend the Road Traffic Ordinance (Cap. 374) to effect the requirement in (a) above.

Management

8. The Administration has urged all green minibus (GMB) operators to review and strengthen their management of and monitoring over GMB drivers hired by them, with particular emphasis on the driving behaviour of these drivers. It has further promulgated, after consultation with the PLB trade, Codes of Practices for PLB drivers and guidelines for picking up and setting down passengers in the past few years. The Administration has promoted the guidelines through TD's regular liaison with the trade.

Pay

9. The Administration is of the view that, as different from red minibus (RMB) drivers who are all self-employed, GMB drivers are not under any pressure to speed

so as to run more trips to maximize incomes. As such, to help improve the overall safety of PLB operation, the Government's established policy is to seek to convert RMBs into GMB operation where appropriate. As at October 2010, there were 3 011 GMBs operating in Hong Kong, accounting for almost 70% of the local PLB fleet.

10. In addition, TD conducts site inspections and liaises with GMB operators to ensure drivers' working schedule is reasonable. The guidelines on bus drivers' working hours have also been given to the operators for reference.

Measures to combat inappropriate driving behaviours of PLB drivers

By limiting speed of PLBs

11. Currently there is a maximum speed limit of 70 kilometres per hour (kph) for all medium goods vehicles, heavy goods vehicles and buses, as well as motorcycles and motor tricycles driven by holders of probationary driving licences, even though there may be higher speed limits on roads. To enhance PLB safety, the Panel has repeatedly urged the Administration to study the proposal to "lock the speed of PLBs at a predetermined level" by speed limiters, which could limit the vehicle speed to a specified level by controlling the fuel feed. Despite its claims that technical problems had emerged in installing such a device on liquefied petroleum gas (LPG) PLBs because LPG and diesel were two different types of fuels and the engines were different, the Administration finally reported at the Panel meeting on 27 November 2009 that after confirming with PLB suppliers the feasibility of retrofitting speed limiters onto current models of diesel and LPG PLBs and consulting the PLB trade, it had decided to require all PLBs to install speed limiters. To speed up the installation of the device, TD was also planning to introduce new conditions into the vehicle licences and passenger service licences (PSLs) of PLBs in early 2010 to make speed limiter a basic equipment of PLBs and require all registered PLB owners to retrofit their PLBs with a speed limiter that was endorsed and approved by TD. As the validity of a vehicle licence is one year, it was then expected that by early 2011, all PLBs would be installed with speed limiters according to the licensing requirement. The Administration also planned to introduce into LegCo in the 2010-2011 session a proposal to amend the Road Traffic (Construction and Maintenance of Vehicles) Regulations (Cap. 374A) for enhancing the regulation of the installation and use of speed limiters.

12. It was also reported at the 27 November 2009 meeting that in connection with the requirement to install speed limiters, TD would set the maximum speed for the limiter at 80 kph in general, and at 100 kph if necessary, and would introduce new conditions into the vehicle licences and PSLs of PLBs in early 2010 to stipulate the

maximum speed of the speed limiter. The Administration also planned to introduce into LegCo in the 2010-2011 session a proposal to amend the Road Traffic Ordinance (Cap. 374) by prescribing the maximum travelling speed of PLBs.

By enhancing awareness of speeding through the installation of speed display devices

13. Speed display devices (SDDs) are primarily used to facilitate monitoring by PLB passengers and caution PLB drivers against speeding. Following a trial scheme launched in 2001, TD began to install SDDs on GMBs on overnight services in August 2002. By April 2003, all GMBs running overnight routes had been installed with SDDs. As the device can facilitate passengers' awareness of GMBs' speed, the number of complaints on GMBs speeding had as a result increased substantially. The programme was further extended to those GMBs operating along expressways in late 2003.

14. In April 2005, mandatory installation of SDDs on PLBs was made a new vehicle licence condition upon issue or renewal of a PLB licence. By the end of June 2006, all PLBs had been installed with SDDs. With effect from 1 May 2008, any misuse or malfunctioning of the devices would constitute an offence under the Road Traffic (Vehicle Construction and Maintenance) Regulations (Cap. 374A).

By facilitating speeding complaints through display of complaint hotline and the driver name plate

15. It has always been the Panel's view that the Transport Complaint Unit (TCU)'s hotline number should be prominently displayed near the SDD, and more publicity be launched to heighten public awareness of the reporting mechanism. In response, the Administration has since November 2005 incorporated the requirement for all PLB operators to display the TCU hotline inside the PLB as a PSL condition. At the Panel meeting on 23 June 2006, the Administration was requested to further consider a member's proposal of requiring PLB operators to display driver name and the complaint hotline on the body of PLBs, and to incorporate it as a condition in the PSL. However, the Administration subsequently reported that the PLB trade had raised strong objection to the proposal on grounds that it would exert unnecessary pressure on PLB drivers, and might invite abuse of the complaint channel.

By recording driving behaviours through use of the vehicle blackbox

16. Another option to deter speeding is to keep a full record of the operating conditions of the vehicle such as average speed per minute, daily highest speed, distance travelled, total number of driving hours, numbers of foot brake application and door opening, whether illumination/indication lights are switched on, etc. To facilitate monitoring of GMB operation and accident investigation, TD has since 2004 been conducting trials on the use of the vehicle monitoring system (vehicle

blackbox) on PLBs. These trials had however been unsuccessful because the device was found suffering from data loss and damage. Keen to ensure installation of the vehicle blackbox on PLBs, the Panel has written to local universities, vehicle manufacturers and the Hong Kong Productivity Council to seek their views on the feasibility of installing vehicle monitoring systems on PLBs and the latest technological trend. Subsequently, after taking into consideration the application of blackboxes in overseas countries and the Mainland, the Administration reported at the Panel meeting on 27 November 2009 its plan to introduce into LegCo in the 2010-2011 session a proposal to amend the Road Traffic (Construction and Maintenance of Vehicles) Regulations (Cap. 374A) to include blackbox as a basic equipment of newly registered PLBs.

By strengthening enforcement efforts

17. The Police have from time to time carried out large-scale covert operations during night time and early morning to combat inappropriate driving behaviours of PLB drivers. Such operations involve plainclothes undercover agents, observation posts, uniformed police on roadblock duties, and the use of in-car video systems or laser guns. TD has since 2008 also launched together with the Police and the PLB trade the “Project Safe Ride” scheme. Under this scheme, the Police has set up a dedicated hotline for passengers riding on RMB and GMB services to report the speeding or improper behaviours of frontline PLB drivers. As at November 2009, the Police had issued summons or warnings to a total of 32 PLB drivers after investigation. The Administration had indicated plans to review the Scheme in end 2009.

Installation of passenger protection equipment

18. In view of the relatively high rear seat casualty rate for accidents involving PLBs, the Panel has actively pursued the installation of passenger protection equipment, including seat belts and high back seats, on PLBs to enhance passenger safety. Legislative amendments were passed in November 2002 to require newly registered PLBs to be fitted with seat belts and high back passenger seats, and to require PLB passengers to wear seat belts where such are available. The maximum penalty for failing to do so is \$5,000 and three months' imprisonment. To allow sufficient time for the vehicle manufacturers to develop and produce the new passenger protection equipment, the seat belt legislation only took effect on 1 August 2004. Since 1 August 2004, the Government has introduced two incentive schemes to provide the PLB trade with financial assistance for encouraging PLB owners to replace their old PLBs with greener and newer models. It is expected that with old PLBs being gradually replaced by new models, the percentage of PLBs fitted with passenger seat belts will continue to rise. As at 30 June 2010, 2 382 PLBs (55% of

all PLBs) were already fitted with passenger seat belts. The remaining 1 967 PLBs were first registered before 1 August 2004 (45% of all PLBs). In addition, the Police had between August 2004 and June 2010 instituted a total of 11 090 prosecutions against PLB drivers and passengers for failing to wear seat belts. The number of prosecutions by year is in **Appendix I**. No PLB owners have been prosecuted for non-compliance with the requirement of fitting seat belts in their vehicles.

Panel discussion on safety of PLB operations since the fatal accident on 12 June 2009

19. In the wake of a serious fatal accident involving a GMB on Mong Kok Road on 12 June 2009 (the Accident), the Panel discussed the Accident and safety of PLBs at its meeting on 26 June 2009. Members urged the Police to strengthen enforcement actions, in particular undercover operations, against dangerous practices of PLBs to minimize accidents. The Administration subsequently reported that in the fourth quarter of 2009 and the first two quarters of 2010, the Police had instituted over 8 000 prosecutions against PLBs. During the period from January to June 2010, the Police arranged 205 undercover operations against 129 RMBs and 129 GMBs. In these operations, the Police arrested one RMB driver suspected of dangerous driving, and issued summons or fixed penalty tickets to another 158 PLB drivers.

20. At its meeting on 26 June 2009, the Panel also discussed whether efforts made to convert RMBs into GMB operation could help improve the overall safety of PLB operation. Referring to the Accident, a member commented that the conversion scheme could serve little purpose because GMBs would also speed. In particular, noting that over 80% of PLB operators were remunerating their drivers with a basic salary plus bonus, members opined that the pay structure would lure PLB drivers to speed. The Administration was urged to look into the pay structure and provide information on its various components which should be itemized and quantified in percentage terms.

21. Some members also pointed out that the installation of SDDs on PLBs would serve little purpose as most PLBs continued to speed regardless of the warnings given by SDDs. The Administration explained that since SDDs were calibrated at a speed of 80 kilometres but GMBs plying expressways might operate beyond 80 kilometres, GMBs might not be speeding even when the SDDs on them were giving warnings. Highlighting the use of exterior speed display lights, a member urged the Administration to examine the feasibility of requiring PLBs to install the device.

22. , To address the various concerns expressed by members at the 26 June 2009

Panel meeting, the Panel resolved that the Administration should submit reports to the Panel at quarterly intervals on relevant issues, including progress of the implementation of measures to enhance road safety for PLBs and installation of devices to monitor vehicle speed; and statistics of law enforcement and undercover operations against speeding of PLB drivers. The Administration briefed members on the first quarterly report at the Panel meeting on 27 November 2009. The second report (LC Paper No. CB(1)2683/09-10(01)) was circulated to members on 2 August 2010, providing the latest number of prosecutions against PLBs (**Appendix II**)

23. As elaborated in paragraphs 7, 11, 12 and 16 above, the Administration announced at the Panel meeting on 27 November 2009 plans to implement the following measures to enhance the safety of PLB operation –

- (a) Require all PLBs to install speed limiters;
- (b) Mandate vehicle monitoring system (i.e. “Blackbox”) as a basic equipment of newly registered PLB; and
- (c) Introduce a proposal into LegCo in the 2010-2011 session to amend the Road Traffic Ordinance (Cap. 374) to require applicants for PLB driving licence to attend a mandatory pre-service training course.

24. While in general supportive of the above plans, some members opined that the blackbox should be included as a basic equipment of all PLBs instead of only the newly registered PLBs. The Administration explained that given the variety of existing PLB models, there was difficulty in identifying a reliable standard model of blackbox that would suit the different models of PLBs.

25. The Panel also revisited concerns about whether or not the pay systems for GMB drivers, in particular the so-called revenue sharing arrangement, had adverse effect on the driving attitude of GMB drivers. To address such concerns, the Panel urged the Administration to seriously review the pay systems of GMB drivers. The Administration advised that according to information collected, only 6% of drivers of GMB routes were remunerated on a solely revenue sharing basis. The findings of TD’s analysis did not indicate any direct correlation between the pay systems for GMB drivers and the safety of GMB operation. Nevertheless, the Administration undertook to continue to closely monitor and report on the safety performance of GMBs and co-operate with the Police on enforcement against speeding by PLBs. The latest breakdown of the number of accidents involving PLB drivers remunerated differently is at **Appendix III**.

26. Concerned about the working hours and adequacy of rest time allowed for GMB drivers, the Panel also queried whether the working hours specified in the

current guidelines on the working hours of GMB drivers (the PLB Guidelines) could ensure the safety of PLB operation. The Administration pointed out that the specified working hours had been determined in consultation with the PLB trade, and that the PLB Guidelines basically followed those for franchised bus drivers. Some members proposed that the Administration should consider reducing the maximum daily duty hours and the maximum daily driving duty hours under the PLB Guidelines from 14 to 10, and from 11 to eight respectively. The Administration agreed to further study the issue by making reference to the arrangements of the working hours and rest breaks of bus captains in some overseas cities. The PLB Guidelines, GMB drivers' actual working hours and comparison with their counterparts overseas were subsequently circulated to members vide LC Paper No. CB(1)2380/09-10(01).

Latest developments

27. To address concerns about the progress in taking forward measures to enhance the safety of PLB operations, the Ombudsman initiated on 21 January 2010 a direct investigation into the actions of TD in this regard, so as to ensure effective monitoring of the measures and to examine the reasons for delays. The direct investigation sought to examine the following –

- (a) The factors taken into account by TD in deciding on what measures to be taken, how and when to implement them;
- (b) The mechanisms for monitoring the measures to be introduced; and
- (c) Any areas for improvement.

28. The investigation report was released in December 2010. Its executive summary is in **Appendix IV**. In gist, the Ombudsman expressed regrets at the slow progress which TD had made in ensuring PLBs would install speed limiters, blackboxes, retrofit passenger seat belts and high back seats, and in training PLB drivers.

29. The Administration has proposed to update the Panel on installation of safety equipment on PLBs at the meeting scheduled for 25 February 2011.

Relevant papers

30. A list of relevant papers is in **Appendix V**.

Council Business Division 1
Legislative Council Secretariat
21 February 2011

**Breakdown by year of the number of prosecutions instituted
by the Police between August 2004 and June 2010
against public light bus drivers
and passengers for failing to wear seat belts**

<i>Year</i>	<i>Number of prosecutions (Drivers and passengers)</i>
2004 (August to December)	233
2005	1 522
2006	2 078
2007	1 919
2008	2 211
2009	1 848
2010 (January to June)	1 279
Total	11 090

Number of Prosecutions against Public Light Buses

Offences	Q4, 2009	Q1, 2010	Q2, 2010
Causing death by dangerous driving	0	3	5
Dangerous driving	6	10	12
Careless driving	173	162	169
Drink driving	2	2	3
Speeding	305	309	292
Failure to comply with traffic signals	293	233	260
Failure to comply with traffic signs/ road markings	230	229	186
Failure to comply with restriction on double white lines	75	65	65
Failure to comply with restriction on prohibited and restricted zones	557	512	492
Offences relating to seat belts	608	395	884
Using a mobile telephone or other telecommunications equipment or an accessory to such telephone or equipment while the vehicle is in motion	0	46	60
Others	529	582	434
Total	2,778	2,548	2,862

During the period from January to June 2010, the Police arranged 205 undercover operations against 129 red minibus and 129 green minibuses. In these operations, the Police arrested 1 red minibus driver suspected of dangerous driving, and issued summons or fixed penalty tickets to another 158 drivers. These figures have been included in the above table.

Appendix III

**Number of Traffic Accidents Involving Green Minibuses (GMBs) from 2006 to First Half of 2009
(Categorised by the pay systems)**

Number of Traffic accidents	Drivers remunerated by basic wages or basic wages plus additional fixed allowances				Drivers remunerated by basic wages plus shared revenue				Drivers remunerated solely on revenue sharing basis				All different category of pay systems			
	2006	2007	2008	Jan-Jun 2009	2006	2007	2008	Jan-Jun 2009	2006	2007	2008	Jan-Jun 2009	2006	2007	2008	Jan-Jun 2009
Number of vehicles involved in serious and fatal accidents per 1,000 registered GMBs	38.5	50.0	40.8	21.3	32.0	42.3	45.3	17.2	32.5	26.2	29.2	17.3	37.1	46.4	39.8	20.4
Number of GMBs involved in serious and fatal accidents	83	111	93	49	9	12	13	5	11	9	10	6	103	132	116	60
Number of vehicles involved in traffic accidents per 1,000 registered GMBs	232.7	258.1	225.7	129.6	153.0	179.6	219.5	89.7	245.6	198.3	233.2	138.3	226.2	243.1	226.0	126.7
Number of GMBs involved in traffic accidents	502	573	515	298	43	51	63	26	83	68	80	48	628	692	658	372

EXECUTIVE SUMMARY

Direct Investigation Transport Department Actions for Safe Operation of Public Light Buses

Background

Road safety is paramount. The Transport Department (“TD”) has the undeniable responsibility for proactively enhancing the safety standard of our public transport services.

2. Public Light Buses (“PLBs”) are one of the most popular modes of public transport in Hong Kong. The number of PLBs has been frozen at 4,350 since 1976. Statistics show that the incidence of accidents involving PLBs is significantly higher than that of other classes of motor vehicles (**Annexes I and II** of the report).

3. In 2000, after several fatal accidents involving PLBs, TD undertook to examine and develop safety enhancement measures for PLBs. However, little progress was made in the following nine years, reflecting neither due diligence nor sense of urgency on the part on TD. Study and implementation of the installation of speed limiter and vehicle monitoring system (commonly know as “blackbox”) on PLBs were only accelerated after two major fatal accidents involving PLBs in June and July 2009. The Ombudsman, therefore, initiated this direct investigation in January 2010.

Enhanced Safety Measures Already Introduced

4. Major safety enhancement measures for PLBs introduced by TD before January 2010 include:

- enhanced monitoring and training of PLB drivers;
- mandatory installation of Speed Display Device on all PLBs; and
- mandatory installation of passenger seat belts and high back seats on all PLBs registered on or after 1 August 2004.

Passenger Seat Belts and High Back Seats

5. As at 30 September 2010, 2,415 out of 4,350 PLBs (i.e. 55.5%) are equipped with passenger seat belts and high back seats, in contrast to TD's prediction in mid-2006 that over 60% of all PLBs would be equipped with such equipment by mid-2008. Responding to this investigation, TD states that it is now unable to give an estimate on when all PLBs will be fitted with the equipment. Details of the PLBs with such retro-fitment are indicated below.

<i>Registration Year</i>	<i>Number of PLBs</i>	<i>PLBs with Passenger Seat Belts and High Back Seats</i>
On or after 1 August 2004	2,074	2,074 (100%)
Before 1 August 2004	2,276	341 (15%)
Total	4,350	2,415 (55.5%)

Age distribution of the 2,276 PLBs registered before 1 August 2004 and still running on road as at 30 September 2010 is shown in **Table 3** of the report.

6. As at 30 September 2010, 50% of the 2,093 PLBs having been scrapped by owners since August 2004 were aged from 11 to 14 years, and 86% of all the PLBs replaced were aged below 15 years. Yet, the oldest one replaced was aged 20. **Table 4** of the report indicates the age distribution of these 2,093 PLBs.

Speed Limiter

7. TD intends to submit legislative amendments in 2010/11 to make it a statutory requirement to install speed limiter on all PLBs. The related events are summarised below.

<i>Date</i>	<i>Event</i>
October 2003	TD enquired of the major Japanese manufacturers of PLBs operating in Hong Kong about the application of speed limiter regulations in Japan.
17 November 2005*	TD asked the two major manufacturers specifically about: (a) the lead time required for provision of speed limiter on their PLBs; and (b) the possibility of retrofitting a speed limiter on current models. On (a), one manufacturer indicated that a lead time of two to five years would be required for different types of PLBs. On (b), both manufacturers claimed that it was not possible.
19 December 2005 &	Based on the above responses, TD explained to the Legislative Council Panel on Transport ("LegCo Panel") the difficulties of stipulating the

23 June 2006	installation of speed limiters on PLBs.
November 2006 & May 2008	TD enquired of the PLB manufacturers on the latest development of the issue. The manufacturers gave similar responses as above in January 2007 and June 2008 respectively.
17 June 2009 [#]	TD communicated with the two major manufacturers on the issue again. While pointing out, for the first time, on 18 and 23 June 2009 the availability of certain standalone speed limiters in local market, the manufacturers maintained that it would need a few years to provide built-in speed limiter.
26 June 2009	At the LegCo Panel meeting, the Administration maintained that there were difficulties to stipulate the installation of such device on PLBs.
27 July 2009 [@]	TD announced its intention of introducing compulsory installation of speed limiter on PLBs.
30 July 2009	The two major manufacturers confirmed with TD that they had no objection to fit external devices on their PLBs.
24 August 2009	TD released the specification of speed limiter for reference by all potential device suppliers.
By November 2009	TD approved 6 models from 3 local suppliers.
5 March 2010	TD notified all PLB owners and licence holders of addition of a new licence condition that, with effect from 7 June 2010, a PLB would be required to be installed, within three months from the date of issue or renewal of licence, with a speed limiter. Given that the validity of a vehicle licence is one year, all PLBs are expected to be installed with speed limiters by September 2011.

* 4 days after an accident in Sheung Shui involving a PLB, resulted in 2 deaths and 5 injuries

5 days after an accident in Mongkok involving a PLB, resulted in 2 deaths and 8 injuries

@ 2 days after an accident in Yuen Long involving a PLB, resulted in 4 deaths and 17 injuries

8. Prior to July 2009, TD had not commissioned, or been involved in, any trial on speed limiters. Some device suppliers revealed to this Office that various models of speed limiter and blackbox had been introduced to Hong Kong for at least five years. Over the years, at least one supplier and one PLB operator had tried out a speed limiter in 2006 and 2007, and had verbally informed TD frontline staff of such trials. However, TD indicated to us that it only knew of such trial through media reports in early August 2009.

Blackbox

9. TD informed the LegCo Panel as early as December 2003 that it would conduct trials on the use of blackboxes on PLBs. However, instead of commissioning trials by itself, TD facilitated blackbox suppliers to run three trials from 2004 to mid-2009. All were found unsuccessful. In

February 2007, in response to TD's enquiry, the Hong Kong Productivity Council ("HKPC") made a face-to-face presentation to TD on HKPC's proposed in-vehicle monitoring system tailor-made for PLBs. HKPC informed TD in writing in March 2007 that system development and trial on road, each needed about six months, would cost around \$2 million. TD did not follow up the matter. It explained that it had received no formal proposal from HKPC since then.

10. In August 2009, having regard to technological maturity in blackbox design and manufacturing and experiences in Europe and Mainland China, TD proposed to mandate the installation of blackbox on new PLBs. It intends to submit the necessary legislative amendments in 2010/11.

Mandatory Pre-Service Training for PLB Drivers

11. TD first informed the LegCo Panel in June 2006 that the PLB trade was generally supportive of the proposal of requiring applicants for a PLB driving licence to attend pre-service training courses that focus on driving behaviour and attitude. Having discussed with the Police and the Department of Justice since July 2008, TD now plans to introduce the necessary legislative amendments in 2010/11.

12. As regards the reasons for taking over four years for the preparatory work, TD explains that it needs to develop a detailed legislative proposal, to formulate content and assessment criteria for the training programme, to stipulate qualifications for course providers and trainers, to put in place arrangements for ensuring authenticity of attendance records and certificates issued, and to enhance the related computer system.

Observations and Opinions

Lacking Due Diligence and Sense of Urgency

13. Evidence indicates that at least for the measures listed below, there had been a lack of due diligence and sense of urgency in TD to explore their feasibility until mid-2009, when two fatal accidents involving PLBs happened on 12 June and 25 July 2009.

14. **Speed Limiter.** TD's enquiries with the major Japanese manufacturers of PLBs regarding the installation of speed limiters only started in November 2005, four days after a fatal PLB-related accident had happened. Thereafter, TD's follow-up enquiries with the manufacturers in November 2006 and May 2008 were no more than routine requests for update. Again, it was

not until another fatal PLB-related accident had happened did TD follow up the issue with the manufacturers again in June 2009. TD has been taking prompt follow-up actions since then. Nevertheless, the issue had been put on the back burner for some four years.

15. **Blackbox.** TD did not directly commission trial on the use of blackbox on PLBs, but only facilitated three trials volunteered by suppliers. Owing to its passive role, TD had no control over the timing and direction of the trials.

16. TD did ask HKPC for advice in early 2007. However, subsequent to HKPC's elaboration on its proposed trial, TD did not pursue the matter further, leaving the task simply untouched. TD's explanation for not following up the matter (**para. 9**) is hardly convincing.

17. **Training of PLB Drivers.** The government-subsidised PLB driver training courses have been introduced for more than six years. However, up to end of 2009, only 1,138 drivers had attended such courses, representing only about 10% of the 11,000 to 12,000 active PLB drivers. The promotion efforts of TD, particularly those targeting PLB drivers directly, have been minimal.

18. TD's explanation for taking more than four years to prepare the mandatory pre-service training for PLB drivers (**para. 12**) is again unacceptable. Most of the details of the scheme have been readily available, given that the training content, assessment criteria, trainer qualifications and other administrative arrangements are to be modeled on existing similar programmes mentioned above.

Want of Timely Review

19. As at 30 September 2010, there were still 1,935 PLBs registered before 1 August 2004 running on the road without passenger seat belts. If we rely solely on attrition of the "pre-August 2004" PLBs to be replaced, it may well take at least eight years for all PLBs to be equipped with such equipment. By any estimation, five years later, by the end of 2015, it is very likely that there will still be about 1,000 PLBs running on the road without such safety equipment. This is only a rough estimation based on the statistics of PLBs replaced in the past six years (**Table 4** of the report) versus the age distribution of the existing PLBs (**Table 3** in report). Thus, passengers will continue to face a higher risk posed by these PLBs for at least another eight years. This is unacceptable. With the mandatory scheme introduced for six years now, we consider it important for TD to review the issue and resolve the problem without delay. The feasibility of setting a time table or cut-off date for mandatory installation of the equipment on all "pre-August 2004" PLBs should be considered.

20. There are concerns over the technical feasibility and the cost burden borne by the trade if mandatory installation is to be extended. However, only about 20 existing PLBs aged over 15 years cannot be retrofitted with such equipment, and they are all approaching the end of their service life. While the cost of retro-fitment must be considered, the Administration should also give public safety due consideration in the overall assessment.

Consultation Spectrum Too Narrow

21. Prior to June 2009, TD relied mainly on its consultation with the major PLB suppliers and manufacturers to determine the technical feasibility of installation of speed limiter. On the technical aspect of installing blackboxes on PLBs, throughout all these years, TD had only consulted HKPC but had taken no follow-up action on HKPC's proposal. On the apparent sluggishness, TD repeatedly cited the need for suppliers and manufacturers to confirm that retrofitment of such equipment would not affect the product guarantee and technical support they offered.

22. TD should have adopted a broader approach by contacting other resourceful players in the field, such as academic and professional bodies, and acquiring more independent opinions. Such opinions are essential in making a thorough and balanced assessment on whether, when and how to proceed with the introduction of safety enhancement measures. While product guarantee is a valid concern, over emphasising its importance may impose unnecessary constraints in exploring alternative solutions or even become an excuse for inactivity.

Inertness towards Market Information and Overseas Experiences

23. TD was apparently inert to the availability of various models of speed limiter and blackbox in the local market. Neither was it sensitive enough to pick up relevant intelligence, such as trials on speed limiters voluntarily conducted by members in the trade (**para. 8**).

24. Shortly after TD had published its tailor-made specifications for speed limiters in August 2009, at least three local suppliers had submitted applications – with six of their product models approved quickly afterwards. Such prompt response clearly showed the maturity of the technologies and immediate availability of such products in the local market.

25. Moreover, under the regulations of the European Community and the United Kingdom on installation of speed limiter, vehicles similar to PLBs in Hong Kong were required to retrofit speed limiter in phases between January 2005 and January 2008. This shows that retrofitment of external device is technically feasible, at least for certain types of passenger vehicles. Hong Kong has undeniably lagged behind other advanced countries in introducing this safety enhancement measure.

Tampering of Device

26. TD has the responsibility to ensure compliance with the regulation on installation of speed limiter and blackbox and to deter mis-use or tampering of the devices. Besides relying on the annual examination of the vehicles at TD's centres, we consider that TD should take more monitoring measures such as conducting surprise and random checks.

Blackbox Data Use

27. Installation of blackbox can help deterring the driver from improper driving. However, other than for accident investigation, the Administration should consider enabling relevant Government experts to access, use and analyse such data under justifiable circumstances or conditions. The data collected from individual vehicles can be used in the monitoring of its operation. Statistics generated from the data of different vehicles may also be useful for reviewing the effectiveness of various safety measures, and for forward planning.

Recommendations

28. Road safety is about human lives. However, prior to June 2009, there had been a lack of due diligence in TD in fulfilling its responsibility to enhance safety of PLB operation proactively. From our findings, The Ombudsman makes the following recommendations to the Commissioner for Transport:

For Safe Operation of PLBs

- (1) to review and consider whether the requirement for installation of passenger seat belts and high back seats should be extended to PLBs registered before 1 August 2004, so as to reduce significantly the number of PLBs not retrofitted with such equipment within a reasonable timeframe;
- (2) to work out specific measures against tampering of speed limiter and blackbox installed, including surprise check or random check of vehicles;
- (3) to consider the use of data stored in blackboxes for the purposes of monitoring driving behaviour, as well as for reviewing and planning of various safety enhancement measures;

For Road Safety Initiatives in General

- (4) to set out work plans, with time schedule, for monitoring progress of each and every safety measure under study, instead of merely reacting to outburst of public pressure following each tragic traffic accident;
- (5) to consider seeking assistance from academic or professional institutions/bodies, where necessary, in assessing the feasibility of safety enhancement measures to be introduced, and in regularly reviewing the effectiveness of the measures after their implementation; and
- (6) to set up and maintain an intelligence network with relevant trades and sectors, so as to keep abreast of the latest developments of technology, regulatory mechanism and market information in and outside Hong Kong.

29. TD has accepted recommendations (2) to (6). As to recommendation (1), TD's response is not forthcoming. TD agrees only to discuss with the PLB trade and PLB suppliers on possible and viable ways to speed up the replacement progress as far as practicable.

30. We maintain the view that the slow progress over the past six years on retrofitting PLBs with passenger seat belts and high back seats has shown that TD's prediction in mid-2006 that over 60% of PLBs would be equipped with such safety equipment by mid-2008 is over-optimistic and the voluntary retrofitment scheme has been less than effective. Without more vigorous measures, it would take at least eight years for all PLBs to be equipped with passenger seat belts; and there would still be about 1,000 PLBs running on the road without such equipment by the end of 2015. We should not put more lives of PLB passengers at risk. We strongly urge the Administration to reconsider our recommendation.

Office of The Ombudsman
December 2010

Measures to enhance safety of public light bus operations

List of relevant papers

Panel/Committee	Date of meeting	Paper
Transport Panel (TP)	28 April 2000	Administration's paper on measures adopted and proposed measures to tackle speeding activities by PLBs (LC Paper No. CB(1)1435/99-00(06)) http://www.legco.gov.hk/yr99-00/english/panels/tp/papers/a1435e06.pdf
TP	15 December 2000	Administration's paper on the policy on PLBs (LC Paper No. CB(1)307/00-01(03)) http://www.legco.gov.hk/yr00-01/english/panels/tp/papers/a307e03.pdf
TP	19 January 2001	Administration's paper on the findings of the Administration's review of measures to enhance safety of passengers on PLBs (LC Paper No. CB(1)464/00-01(04)) http://www.legco.gov.hk/yr00-01/english/panels/tp/papers/a464e04.pdf
TP	28 November 2003	Administration's paper setting out the basic framework of a possible trial scheme for facilitating incumbent drivers of red minibuses operating in the service area of the West Rail to operate green minibus services via Route 3 (LC Paper No. CB(1)406/03-04(05)) http://www.legco.gov.hk/yr03-04/english/panels/tp/papers/tp1128cb1-406-5e.pdf
TP	5 December 2003	Report on Enhancement of Highway Safety of the Tuen Mun Road Traffic Incident Independent Expert Panel (LC Paper No. CB(1)455/03-04(01))

Panel/Committee	Date of meeting	Paper
		http://www.legco.gov.hk/yr03-04/english/panels/tp/papers/tp1205cb1-455-1e.pdf
TP	5 December 2003	Administration's paper reporting on the development and progress of the measures to enhance passenger safety of PLBs (LC Paper No. CB(1)477/03-04(01)) http://www.legco.gov.hk/yr03-04/english/panels/tp/papers/tp1205cb1-477-1e.pdf
TP	19 December 2003	Administration's responses to the Report on Enhancement of Highway Safety of the Tuen Mun Road Traffic Incident Independent Expert Panel (LC Paper No. 586/03-04(03)) http://www.legco.gov.hk/yr03-04/english/panels/tp/papers/tp1219cb1-586-3e.pdf
TP	19 December 2005	Information paper provided by the Administration (LC Paper No. CB(1)526/05-06(01)) http://www.legco.gov.hk/yr05-06/english/panels/tp/papers/tp1219cb1-526-1e.pdf Minutes of meeting http://www.legco.gov.hk/yr05-06/english/panels/tp/minutes/tp051219.pdf
TP	23 June 2006	Information paper provided by the Administration (LC Paper No. CB(1)1789/05-06(03)) http://www.legco.gov.hk/yr05-06/english/panels/tp/papers/tp0623cb1-1789-3e.pdf Minutes of meeting

Panel/Committee	Date of meeting	Paper
		http://www.legco.gov.hk/yr05-06/english/panels/tp/minutes/tp060623.pdf
TP	23 March 2007	Information paper provided by the Administration (LC Paper No.CB(1)1996/06-07(01)) http://www.legco.gov.hk/yr06-07/english/panels/tp/papers/tp0323cb1-1149-4-e.pdf Minutes of meeting http://www.legco.gov.hk/yr06-07/english/panels/tp/minutes/tp070323.pdf
TP		Information paper provided by the Administration (LC Paper No.CB(1)2062/07-08(01)) http://www.legco.gov.hk/yr07-08/english/panels/tp/papers/tpcb1-2062-1-e.pdf
TP	26 June 2009	Information paper provided by the Administration (LC Paper No.CB(1)1982/08-09(08)) http://www.legco.gov.hk/yr08-09/english/panels/tp/papers/tp0626cb1-1982-8-e.pdf Minutes of meeting http://www.legco.gov.hk/yr08-09/english/panels/tp/minutes/tp20090626.pdf
TP	27 November 2009	First quarterly progress report provided by the Administration (LC Paper No.CB(1)430/09-10(03)) http://www.legco.gov.hk/yr09-10/english/panels/tp/papers/tp1127cb1-430-3-e.pdf Second progress report provided by the Administration (LC Paper No.

Panel/Committee	Date of meeting	Paper
		<p>CB(1)2683/09-10(01))</p> <p>http://www.legco.gov.hk/yr08-09/english/panels/tp/papers/tp0626cb1-2683-1-e.pdf</p> <p>Background brief prepared by the Secretariat</p> <p>http://www.legco.gov.hk/yr09-10/english/panels/tp/papers/tp1127cb1-2380-1-e.pdf</p> <p>Minutes of meeting</p> <p>http://www.legco.gov.hk/yr09-10/english/panels/tp/minutes/tp20091127.pdf</p> <p>Follow-up paper provided by the Administration (LC Paper No. CB(1)2380/09-10(01))</p> <p>http://www.legco.gov.hk/yr09-10/english/panels/tp/papers/tp1127cb1-2380-1-e.pdf</p>

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