

**For discussion**  
**28 January 2008**

**LEGISLATIVE COUNCIL PANEL ON TRANSPORT**

**Use of Laser Guns for Speed Enforcement**

**Purpose**

This paper details the use of laser guns (hereunder referred as LGs) for speed enforcement by the Police.

**Background**

2. The Police have used LGs to conduct speed enforcement operations since 1993. Speeding is recognized as a major contributory factor to road traffic accidents and LGs have proved to be an efficient and effective measure to combat the offence. Road traffic accidents remain on a downward trend with fatal accidents for 2007 being at the third-lowest level in the past 49 years.

3. The Police began using the model “LTI 20-20 Ultralyte” LG in 2001 with 27 currently in use. The model is produced by a reputable American company which has supplied LGs of various models to over 40 countries including the United Kingdom, America, Canada, Germany and France.

**Accuracy of the Laser Gun**

4. The LGs are regularly serviced and maintained by the manufacturer’s local agent and mechanisms are in place to ensure the accuracy of the equipment through calibration.

5. An appeal against conviction for speeding detected by using a LG was allowed in November 1999 because independent expert evidence as to the accuracy of the LG was not available. In response, Professor TAM Wing-yim of the Hong Kong University of Science & Technology was identified to act as an independent expert witness and the appellant was subsequently convicted after re-trial.

6. In February 2002, Professor TAM discovered irregular data readings from 10 UltraLyte LGs during testing and advised the Police to temporarily suspend the use of the LGs for speed enforcement. These guns were immediately withdrawn from operational use. Following subsequent full-scale tests conducted by Professor TAM the LGs in question were returned to operational use after an upgrade of software by the manufacturer. There have been no issues relating to the accuracy of LGs since 2002.

7. Professor TAM now conducts tests on all LGs on a half-yearly basis in order to provide independent expert evidence on the accuracy of the equipment. All the LGs currently in use by the Police are accurate and reliable.

### **Training**

8. The Police are trained to use the LGs by the manufacturer's agent in Hong Kong. The Police adopt a 'train the trainer' approach in which the agent trains instructors from each Police traffic region who in turn instruct LG operators. The training consists of a two day course at the conclusion of which the trainee is certified as a qualified LG operator. Only qualified LG operators may use the equipment to conduct anti-speeding operations.

### **Traffic Prosecutions**

9. The numbers of prosecutions for speeding offences detected using LGs in the past three years compared together with the number of cases in which the driver pleaded not guilty and was subsequently convicted or acquitted are reproduced below. These statistics indicate the accuracy and reliability of the LG as well as the high standard of LG operators.

<b><u>Speeding</u></b>	<b><u>2005</u></b>	<b><u>2006</u></b>	<b><u>2007</u></b>	<b><u>TOTAL</u></b>
<b>Number of Prosecutions</b>	222,372 ( 95,531 )	213,722 ( 97,110 )	214,577 ( 104,987 )	650,671 ( 297,628 )
<b>Plea Not Guilty (Laser Gun Cases)</b>	63	65*	64*	192
<b>Numbers of Conviction</b>	56	60	41	157
<b>Numbers of Acquittal</b>	7	3	2	12

Remarks : ( ) : represents cases detected by laser guns

\* 23 cases pending trial.

10. In disputed cases expert evidence from either the manufacturer's agent or the independent expert may be called to explain the technology, operation and accuracy of the equipment for the benefit of the Magistrate and the defence as necessary.

### **Case of Public Interest**

11. In a recent court case a driver was detected speeding by Police using the UltraLyte LG. The detected speed was 119 km/h in a 50 km/h zone, that was 64 km/h above the speed limit after deducting a 5 km/h technical allowance. The driver was summonsed , pleaded not guilty to the charge and was represented by a defence counsel who had engaged an expert from the United Kingdom to challenge the prosecution's case on the accuracy of the LG.

12. During cross-examination, the evidence given by the prosecution failed to meet pre-trial expectations. Consequently, the defence counsel invited the prosecuting counsel to accept a lesser charge that the driver was traveling at 79 km/h (a reduction of 35 km/h). The decision to accept the lesser charge was made by the prosecuting counsel, after consultation with the Senior Assistant Director Public Prosecutions and the Police. The decision was made in accordance with the Prosecution Policy Guidelines. The prosecution expert, Professor TAM was not called to give evidence.

13. At no time during the trial was the accuracy of the LG challenged. This case will therefore have no effect on the continued use of LGs and all prosecutions for speeding will remain valid. Professor TAM has addressed the media and confirmed the accuracy of the LGs used by Police.

14. Police have an established system to review cases and any recipient of a Fixed Penalty Ticket for speeding who feels aggrieved may contact the Central Traffic Prosecutions Division using a dedicated telephone line 2860 6349 during office hours. So far Police have received 139 written requests from different sources as a result of the recent court case, these requests will be dealt with using established procedures.

15. In light of what is known concerning this case, Police have directed LG operators to continue to follow the procedures detailed in the manufacturer's manual. A working group coordinated by Traffic Branch Headquarters has commenced work to study the training and procedures in respect of the use of LGs to ensure the best advice is provided to LG operators.

**Hong Kong Police**  
**January 2008**