

Date: 10 March 2016

Item: Bus Safety Programme

This paper will be considered in public

1 Summary

1.1 This paper provides an update on the number of collisions and injuries associated with London bus operation and the development of the Bus Safety Programme which was launched on 1 February 2016.

2 Recommendation

2.1 The Panel is asked to note the paper.

3 Bus Casualty Data

3.1 Although London's bus fleet is one of the safest in the world, with 2.5 injuries for every million passenger journeys, the number of collisions involving buses has been increasing over recent years.

3.2 Bus safety data gathered from London Bus operating companies is currently available up to Quarter Three of 2015/16 (see table 1 below). Data for Quarter Three shows that there were 1,443 injuries on the bus network, two of which were fatalities. This is 4.6 per cent below Quarter Three for 2014/15. There has also been a 17 per cent reduction in the number of casualties taken to hospital in Quarter Three compared to the previous year. However, minor injuries have increased by one per cent.

3.3 The year to date bus safety data shows that there were 4,297 reported injuries by the end of Quarter Three, compared to 4,196 by Quarter Three the previous year, an increase of 2.5 per cent. However, the number of casualties taken to hospital has decreased by 4.2 per cent, the overall increase being driven by an increase in minor injuries.

3.4 There have been 26 fatalities involving London Buses in the past two years. 15 were pedestrians, six were third party drivers/passengers, three were motorcyclists and two were bus passengers. There have been no cyclist fatalities in the last two years.

	Q4 - 13/14	Q1- 14/15	Q2 - 14/15	Q3 - 14/15	Q4 - 14/15	Q1- 15/16	Q2 - 15/16	Q3 - 15/16
Fatal	4	2	2	5	4	4	3	2
Taken to hospital	482	368	420	452	457	391	423	374
Minor	1225	894	998	1055	1171	1083	950	1067
Total	1712	1264	1420	1512	1632	1478	1376	1443

Table 1. Reported Injuries on the Bus Network (Two Years up to Q3 2015/16)

3.5 The year to date number of **bus passengers** taken to hospital shows a decrease of 3.8 per cent compared to the same quarter of the previous year. However, minor injuries to bus passengers have increased by 9.3 per cent for the same quarter (see table 2 below).

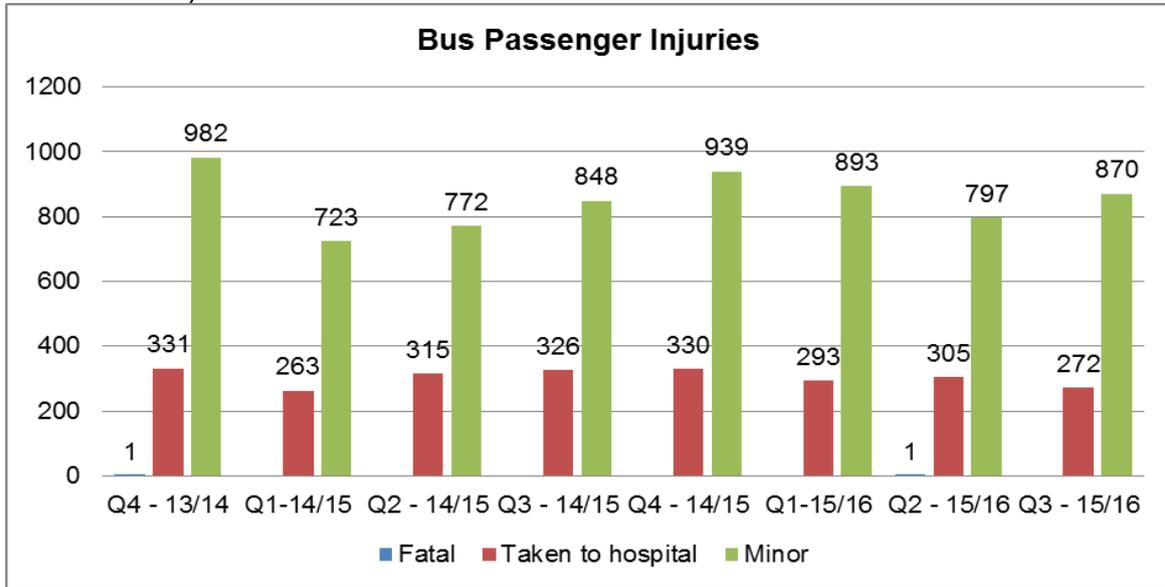


Table 2. Bus Passenger Injuries (Two years up to Q3 2015/16)

3.6 Table 3 shows the categories of all injury incidents that have occurred on the bus network. The proportion of injuries sustained as a result of slips, trips and falls has decreased over time, but still account for half or all injuries involving a London Bus.

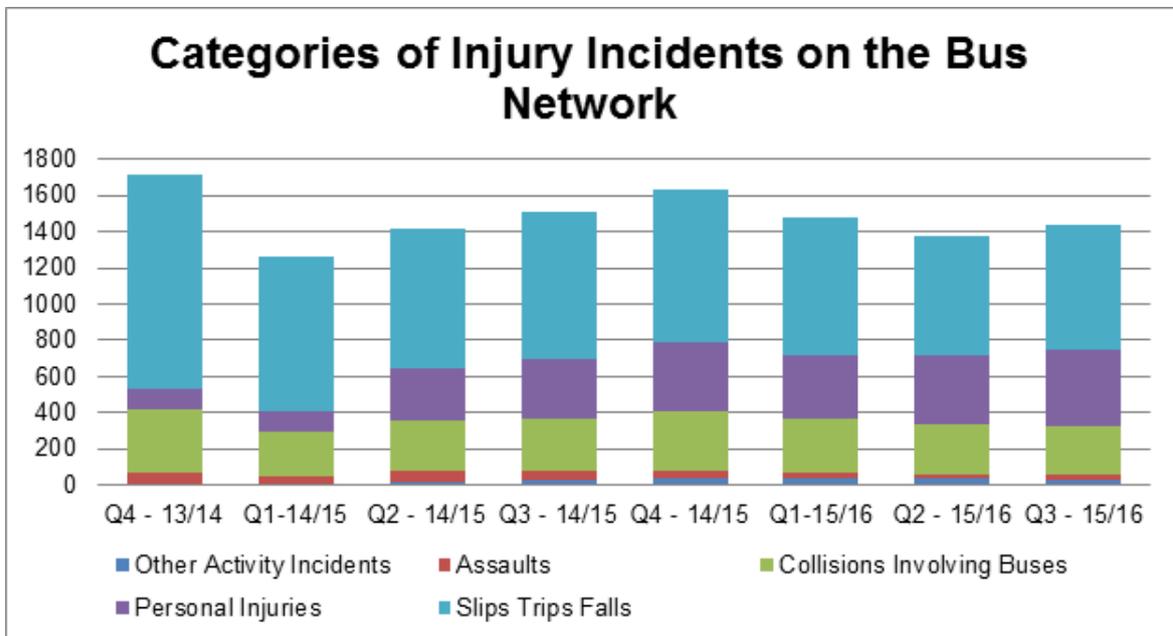


Table 3. Categories of Injuries on the Bus Network (Two years up to Q3 2015/16. For types of injury definitions see appendix 1)

3.7 To further understand the causes of bus collision fatalities and serious injuries, a report is being commissioned. The report will analyse police collision investigation files to determine how and why bus collisions occur in London and identify countermeasures to avoid and mitigate the impact of bus collisions, including

measures related to the vehicle, road users and the road environment. The findings will augment the initiatives already identified in the bus safety programme.

4 Bus Driver Training

A brief summary of the bus driver training arrangements are set out below.

Initial Driver Training and Route Learning

- 4.1 Bus drivers are given thorough training before being allowed to drive a bus with passengers on board. A trainee driver must first pass the Driving Standards Agency's two part theory test. This ensures a theoretical grounding before practical training can commence. A trainee will then spend three to four weeks of intensive tuition behind the wheel supervised by a qualified instructor before undertaking their public carriage vehicle (PCV) test. The main test criterion is that the bus driver will drive in a way that maximises the safety and comfort of their passengers.
- 4.2 Following successful completion of the PCV test has been passed the driver will be instructed on operational equipment (ticket machine, radio, etc) and ticketing before they start driving in service. Drivers are type trained on each vehicle type they are going to be driving in service. Drivers also need to learn the routes they will be driving such as roads, stop locations, landmarks and passenger objectives. New recruits to the industry will be allocated an experienced driver as a buddy/mentor, to provide advice, guidance and support as necessary.

TfL specified training for new bus drivers

- 4.3 In London, bus drivers are required to achieve a vocational City and Guilds (C&G) qualification within a year of obtaining their PCV. This new qualification is a contractual requirement and replaces the BTEC qualification from April 2016. The C&G course provides new drivers with over 60 hours worth of guided learning hours in areas such as customer experience, disability and diversity awareness, communicating, operating the service, health, safety, security and self-management.

Continuous Development and Refresher Training

- 4.4 An EU Directive on Bus Driver Certificate of Professional Competence (CPC) requires that bus drivers attend 35 hours of periodic training every five years. In London, bus companies provide the Driver CPC periodic training requirement in the form of a day's training for every driver each year. This can include a whole range of topics from fuel efficient and safe driving through to updates in technology, legislation, defensive driving and customer care.
- 4.5 As part of the 2014/15 CPC periodic training all bus drivers in London participated in an enhanced Disability Awareness training module, 'All Aboard!', which emphasises greater empathy with passengers. As part of 2015/16 CPC day, a course developed by TfL and bus operators titled 'In The Zone' is being delivered to all drivers to improve self awareness and equip drivers with strategies to reduce crash risk. A paper and presentation on 'In The Zone' was presented to the Panel in July 2015. The objectives of the course are to:

- (a) recognise where and why risk taking behaviours occur; and
- (b) implement effective self reflection and self policing techniques to reduce the consequences of risk taking.

4.6 TfL is also working in partnership with bus operators in developing a bespoke two day course for all London's bus drivers focussed on improving the customer experience. This will be delivered by an external training provider from May 2016 and will take two years to roll out to all 25,000 London bus drivers. The training course will be aligned to extensive research on customer pain/gain points to address the areas which will have the greatest impact on improving service as shown in table 4 below.

Buses pain/gain points

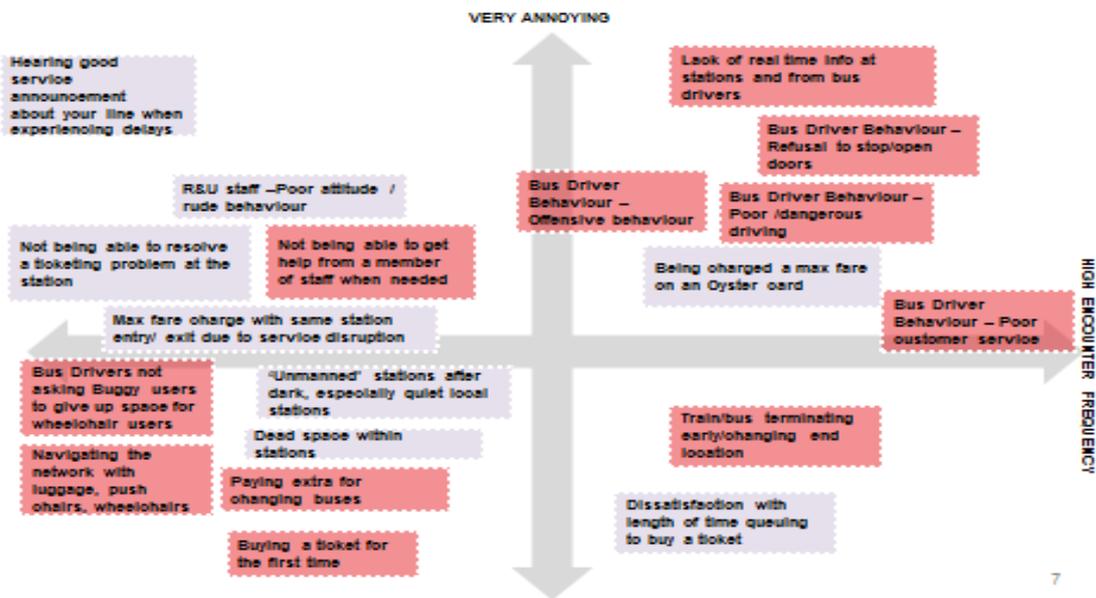


Table 4. Buses pain/gain points

4.5 Ongoing Monitoring

Driver Quality Monitoring surveys are carried out independently by AA DriveTech, a professional fleet monitoring body. Qualified driving professionals carry out over 7,000 covert assessments per annum. Mystery Traveller Surveys (MTS), carried out by research company TNS, measure journeys from a passenger perspective. Annually 22,000 MTS assessments take place. Customer comments data is also used extensively to identify trends and issues. Bus companies make extensive use of telematics systems to monitor individual driver's acceleration, braking and cornering in order to reduce accident and fuel consumption.

5 Bus Safety Programme

5.1 In order to address the increase in the number of collisions and the number of injuries on the bus network and to continue to drive down the numbers of people killed or serious injured, TfL has developed a Bus Safety Programme, which was launched by the Deputy Mayor for Transport on 1 February 2016. The Programme deliverables form six main work streams as set out below.

- (a) **Develop a world leading bus safety standard for London** – A range of innovative new technologies are currently being considered including collision avoidance systems, which utilise sensors to warn drivers of potential dangers and trigger Automatic Emergency Braking systems, and Intelligent Speed Assistance, which is currently being trialled on London's buses. Other potential design innovations include improving wing mirror design and windscreen glazing to reduce the impact of any collision. The latest safety technologies and products will be tested by manufacturers on London Buses throughout 2016 and incorporated into new buses delivered from September 2017 in order to help avoid and mitigate the impact of collisions involving buses.
- (b) **Update TfL's bus contracts to include new safety incentives** – Over the next three months TfL will be updating their bus contracting system and will develop incentives to encourage an even greater focus on safety. Through a series of workshops, TfL will look at how incentives can be used to help reduce the number of people injured on the London Bus network.
- (c) **Provide a new safety training module to all 25,000 drivers** – TfL continues to invest in the most stringent bus driver training in the UK. By the end of 2016, bespoke 'In the Zone' training will have been delivered to all 24,700 bus drivers in the Capital. In the Zone raises drivers' awareness of the risks that we take when we're out on the road, whether that be as a driver of a vehicle or as a vulnerable road user such as a pedestrian, cyclist or motorcyclist. It is hoped that over time the training will encourage drivers to make small but significant adjustments in the way they assess risks and that this will lead to a reduction in the number of incidents on London's roads. TfL and the bus operators are also exploring pre-qualification testing for driver recruitment to be piloted from spring 2016.
- (d) **Provide a UK-first Incident Support Service for those affected by fatal or serious injuries** – In order to provide a better service to those affected by a fatal or life changing injury on the transport network, including a bus collision, TfL is creating a UK first Incident Support Service within its Customer Services Team, which will be available from April 2016. Immediately after an incident has taken place, the service will be available to offer emotional and practical support and provide a single, named point of contact at TfL.
- (e) **Publish additional bus collision data and making it more accessible** – TfL began publishing bus safety statistics on its website in June 2014 to further improving transparency for customers and other stakeholders. Initially, details of incidents resulting in a fatality or injury requiring hospital attendance were published. Last year, TfL extended this to publication of all incidents resulting in any form of injury. As part of the Bus Safety Programme, from spring 2016 TfL will publish additional bus collision data that will categorise the most serious collisions down by road user group. On a dedicated web page TfL will also make information more accessible and provide graphs illustrating long-term trends. The new web page will also link to the London Collision Map, which highlights when and where bus collisions have occurred.
- (f) **Provide greater transparency on bus collision investigations** – For the first time, TfL will clearly set out how fatal and serious injury collisions on the bus network are investigated and the processes that are followed by TfL, the bus

operators and the police. In addition, TfL will be reporting annually on the outcome of all fatal and serious bus collision investigations.

List of appendices to this report:

Appendix 1 – Types of Injury Definitions

List of Background Papers:

None.

Contact Officer: Leon Daniels, Managing Director, Surface Transport
Number: 020 3054 0178
Email: leondaniels@tfl.gov.uk

Appendix 1 – Types of Injury Definitions

Type Of Injury	Definition
Collisions Involving Buses	Road traffic collision injuries recorded irrespective of blame
Slips Trips Falls	Falls within and outside the bus such as when boarding or alighting including falls up/down internal stairs
Personal Injuries	Other incidents that give rise to personal injuries such as a passenger struck by an object, sprain/strains sustained by drivers, cuts etc
Assaults	physical attacks on drivers and/or other passengers
Other Activity Incidents	Other classified incidents giving rise to injuries including stone throwing, alcohol related incidents, engineering failures etc.