

**Title:** On-Bus Safety Announcements Trial

**Date:** 21 March 2018

## Introduction

1. TfL conducted an automated-announcement trial across its 9,000-strong bus fleet from January 12 to February 8 to see if this would reduce on-board customer injuries arising from slips, trips and falls. The message encouraged customers to hold on and move safely around the bus. The objective was to see if this could contribute towards our 2017/18 target of reducing customer injuries by 5%.
2. The iBus next-stop announcement system was used as the platform for the new message. When buses called at stops, the usual route and destination message played, followed by the new safety advice. Prior to the trial, the ability to add the advice and play it at suitable intervals was tested on route 388.
3. The trial used the existing on-bus message system that customers are familiar with and aimed to establish potential benefits and likely impact which could follow if there was merit in rolling out the concept later.

## Announcement and Timing

**Table 1: Timeline of Trial and Adjustments**

Jan														Feb														
Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr							
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8	9
"Please hold on, the bus is about to move"														"Please hold on while the bus is moving"										End				
Played 5 seconds after the announcement of the destination							Played immediately after the announcement of the destination																					

4. The table above shows adaptations to the trial over its 28-day life including revised timing of the safety advice and its rewording to recommend passengers "hold on" for all the time the bus is moving, not just when it may pull away from stops. Adjustments helped mitigate customer concerns over the four weeks.

## Impact of the trial on incidents

5. The following two tables compare the rate of injuries and falls during the 28 days with periods of the same length since the start of 2016/17.

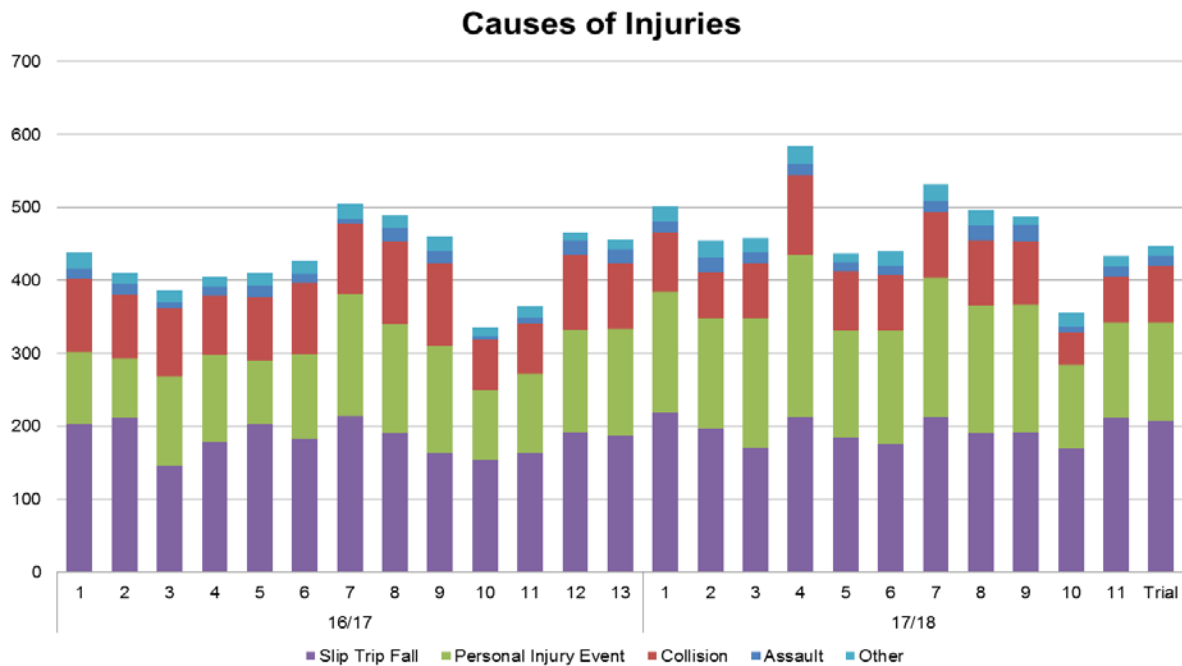


Table 2 – causes of injuries

6. Table 2 shows the causes of customer, staff and third-party injuries in every four-week period from the start of 2016/17. The trial which overlapped TfL reporting periods 10 and 11 is shown in the final column to the right.

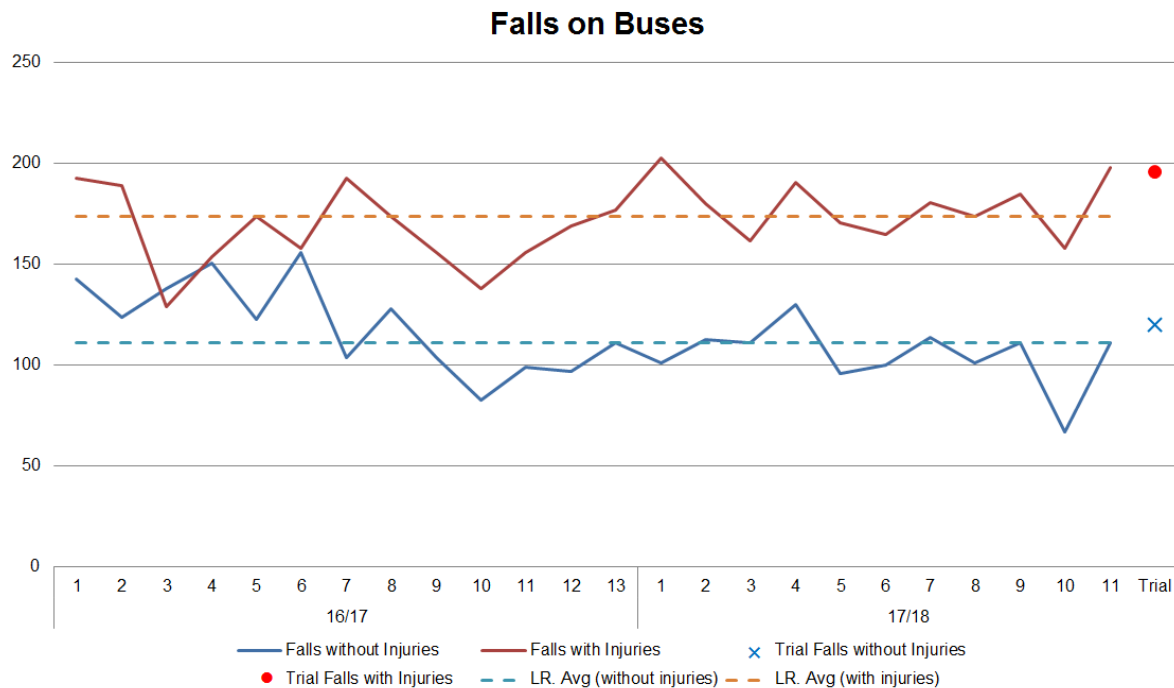


Table 3 – falls on buses

7. Table 3 shows the number of falls on London's buses in the same benchmarked period as Table 2 since 2016/17. The solid red line shows the number of falls that resulted in injuries each period with the dotted red line showing the average across all periods. The circular red dot shows the number of falls that resulted in injuries during the trial, the blue cross those that did not result in injuries. During the period of the trial, falls with injuries were marginally higher than the average, and at around the same level for falls without injury.

### **Customer, Stakeholder and Bus Driver Feedback**

8. The trial attracted a significant volume of customer and stakeholder feedback. There were 1,040 contacts logged by TfL's Contact Centre in the corresponding four weeks. This represents 15% of the total bus-related contacts in that time. Of these contacts, 817 were logged as complaints, 201 as enquiries and eight as commendations.
9. Around half of the complaints referred to the timing of the bus announcement. Many others expressed frustration at the intrusiveness of the repeat advice and questioned the effectiveness of its wording.
10. Complaints peaked at 150 on the fourth day of the trial before falling back in the second week. They also fell in the third week, when the wording of the announcement changed and fell further in the fourth week.
11. There was also considerable activity on Twitter, with around 1,000 tweets related to the trial during its first four days – 86% of these were negative, 2% positive and the rest were a mix of both or neutral. The count of 1,000 tweets is based on a key word search. The safety announcement also generated negative media attention, often repeating comments made on Twitter.
12. Bus journeys across the TfL network increased by 0.3% in period 11 compared to the previous year but there is no evidence this marginally higher patronage was as a result of the trial.
13. Bus driver feedback was mixed and also focussed on the timing of the first version of the announcement.
  - Some drivers reported customers hurrying to alight at busier stops, concerned that the bus was about to depart
  - At times, the automated safety announcement contradicted driver-activated announcements, such as "This bus will wait a short time for a change of drivers to take place".
  - There were reports of drivers switching off the iBus audio announcement following complaints from customers.
  - There was also bus driver support for the announcement, and some requests that it be made available to drivers to initiate manually when necessary.

## Conclusions

14. The initial analysis shows the safety announcement had no measurable impact on injuries or falls on buses despite its high public profile. Possible reasons for this outcome are that :
  - a four-week trial was too short to identify significant impacts
  - the repetitive nature of the safety announcement caused customers to 'zone out' rather than pay attention, and allow their behaviour to be influenced
  - timing of announcements did not align with and influence customer behaviour at the point at which the vehicle began to move
  - announcements on their own are not enough to change customer behaviour.
15. Although overall customer feedback was negative, the volume of complaints declined sharply in the last two weeks of the trial.
16. The announcement trial had a positive impact of promoting the bus safety agenda and raising awareness of slips, trips and falls on buses among customers, stakeholders and staff.

## Next Steps

17. TfL will continue to review data over forthcoming periods to identify any discernible long-term changes in customer behaviour.
18. We will also carry out a further three month trial on a more local level that will look at lower frequency messaging such as targeting certain stops or time intervals that would be less intrusive for customers and could generate more positive impacts on customer safety. This trial will commence in the summer.
19. Other methods and channels for reducing customer injury risk to be considered as part of the trial and beyond include:
  - Developing a trigger that links the timing of announcements with the doors closing
  - Linking safety reminders for customers to selected stops and routes with a higher risk of incidents
  - Timing safety announcements to activate at fixed intervals. The average customer journey length is 14 minutes so a message playing every 10-12 minutes would remind most customers at least once every journey
  - Enabling driver-activated safety announcements to inform customers at the point at which the vehicle starts to move from the stop
  - Providing safety information through other channels, such as on-bus screens, on-board notices and posters
  - Developing bus driver training further to help address customer-injury risks.

**No of contacts from customers, coded "Please Hold On iBus Announcement"**

	Complaint	Enquiry	Suggestion	Commendation	All types
Week 1 of the trial	611	99	6	4	720
Week 2 of the trial	158	68	5	3	234
Week 3 of the trial	32	25	2		59
Week 4 of the trial	16	9	1	1	27
<b>Total</b>	<b>817</b>	<b>201</b>	<b>14</b>	<b>8</b>	<b>1040</b>

**Table 4**

**No of complaints about the trial, as a percentage of all complaints**

	Complaints about the trial	Complaints about the trial as a % of all complaints	Complaints not about the trial	Total number of complaints
Week 1 of the trial	611	29.5%	1460	2071
Week 2 of the trial	158	9.6%	1480	1638
Week 3 of the trial	32	2.1%	1485	1517
Week 4 of the trial	16	1.0%	1518	1534
<b>Total</b>	<b>817</b>	<b>12.1%</b>	<b>5943</b>	<b>6760</b>

**Table 5**

*[Note: TfL set up a specific code to capture the volume of correspondence related to the Please Hold On message. The numbers above use include correspondence attributed to this specific code and does not include observations made on Please Hold On that were part of separate correspondence.]*

**Complaints about the trial, per day**

Week 1		Week 2		Week 3		Week 4	
Fri 12 Jan	19	Fri 19 Jan	49	Fri 26 Jan	8	Fri 2 Feb	6
Sat 13 Jan	120	Sat 20 Jan	26	Sat 27 Jan	4	Sat 3 Feb	2
Sun 14 Jan	132	Sun 21 Jan	18	Sun 28 Jan	4	Sun 4 Feb	0
Mon 15 Jan	150	Mon 22 Jan	16	Mon 29 Jan	8	Mon 5 Feb	3
Tue 16 Jan	82	Tue 23 Jan	23	Tue 30 Jan	3	Tue 6 Feb	2
Wed 17 Jan	57	Wed 24 Jan	12	Wed 31 Jan	1	Wed 7 Feb	0
Thu 18 Jan	51	Thu 25 Jan	14	Thu 1 Feb	4	Thu 8 Feb	3
	<b>611</b>		<b>158</b>		<b>32</b>		<b>16</b>

**Table 6**