Intelligent Speed Assistance – The London Experience



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Overview

Setting the scene – safety in London

How the trials were established

Results from the trial

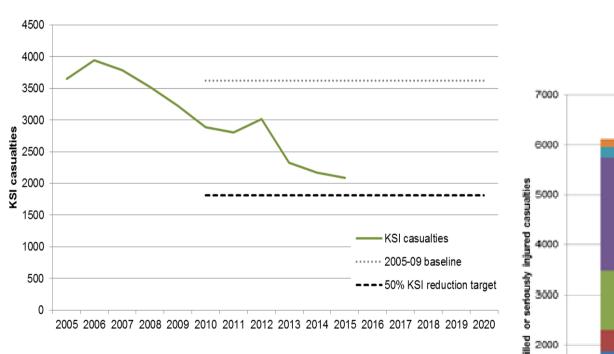
Future plans

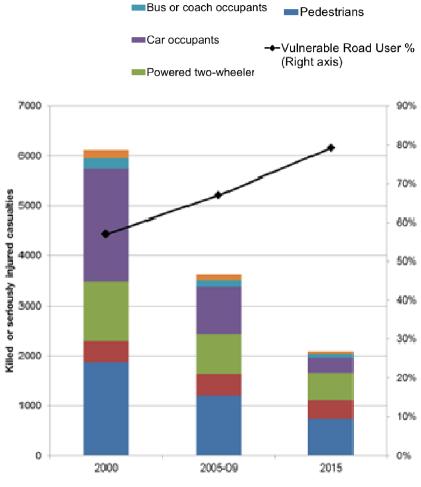






KSI casualties continue to decrease in London, but proportion of vulnerable road users is increasing





Other vehicle occupants

Pedal cyclists



Our road safety plans included actions to trial ISA on buses

56

3

50



2013 Safe Streets for London was launched in 2013

An ambitious plan to reduce the number of KSI casualties by 40% by 2020 (2005-9 baseline)

Ambition: "Working together, towards roads free from death and serious injury"

Key actions themed by Safe Roads, Safe Vehicles, Safe People and Delivering in Partnership

Published 3 further action plans focused on improving safety for vulnerable road users

Achieved the Mayor's road safety target and set a new target to reduce KSIs by 50% by 2020

The trial was possible thanks to a number of key factors

- 1. The Mayor, Deputy Mayor and TfL are committed to improving road safety, and welcome technology and innovation.
- 2. This prioritisation is supported by significant funding in TfL's business plan.
- 3. London Buses are directly controlled by TfL.
- 4. TfL's Digital Speed Limit Map makes ISA in London possible.





We launched the trial in June 2015, installing ISA on buses

serving two routes in London

These routes were selected using customer service data, and data analysis of routes with:

Low bus compliance with speed limits

The most 20mph streets

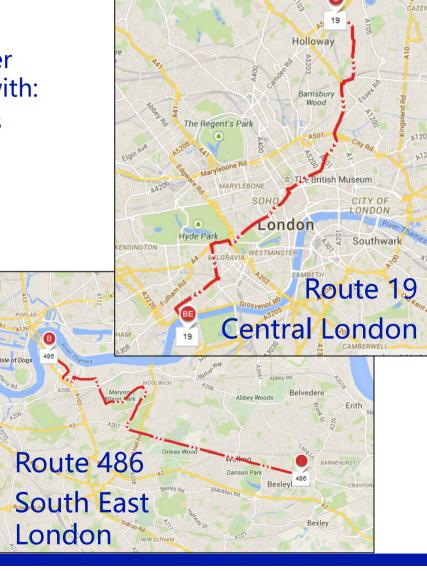
The least opportunities for cars to overtake buses

The highest number of collisions with

pedestrians and cyclists



The ISA technology was supplied by Zeta Automotive, who adapted their product Econospeed into an intervening ISA device.



The results of the trial were mainly positive, with some issues for future consideration identified

The effectiveness of ISA with regard to speed limit compliance of buses

Successful in improving speed limit compliance

Less effective on downhill sections



The behaviour of vehicles following the ISA fitted bus

Can reduce speeds of surrounding traffic

No adverse affect on behaviour

The benefits and disbenefits of ISA for TfL and bus operators

Marginal safety improvement modelled

Marginal increase in journey times

No significant difference in fuel usage, but some evidence of improved emissions in some 20mph zones



Driver attitudes to ISA improved throughout the trial, but some concerns remained, particularly during off-peak shifts

"I think I'm used to it now, it doesn't bother me and I think it's a great idea"



Hard to overtake cyclists on hills at 20mph limit

Other roads users still speed and lose their temper at bus drivers for staying at the limit

Harder to pull out into traffic that is speeding

Some customers ask why the bus is going so slowly, putting pressure on the driver



Customers were unaware that their bus was fitted with ISA, but supportive when it was explained

"The bus doesn't go fast enough through central London for me to notice it!" "It's good for safety I guess, it won't impact upon my journey but may make the roads safer for cyclists in some way"

"It's a great idea, I definitely think some bus drivers go way to fast, especially at night"

Overall, customers think ISA will mean:

 More comfortable journeys as it will prevent drivers from driving too fast and erratically

 Safer roads, particularly for pedestrians and cyclists





TfL plans to roll out ISA and develop a Bus Safety Standard

- ISA will be rolled out on new buses from 2018
- Meanwhile TfL is developing a Bus Safety Standard that will be:
 - a requirement for new buses from 2018
 - a package of safety measures (primary and secondary)

The Standard could include

- Autonomous Emergency Braking (AEB) or other collision avoidance systems
- front of bus and mirror design improvements
- internal bus design improvements
- technology to prevent pedalconfusion





Thank You

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