CASE STUDY

SPECS Safety Cameras - **Nottingham**

Overview

Nottinghamshire was the first ever Safety Camera Partnership to install a SPECS average speed enforcement system in 2000.

Following the success of the initial trial and subsequent systems, eighteen roads in Nottingham and Nottinghamshire now benefit from SPECS and SPECS3 control. These systems are used to promote compliance within all speed limits from 30 mph to 70 mph on both single and dual carriageway roads, covering a range of urban and rural routes.

Customer

Nottinghamshire Safety Camera Partnership.

The Nottinghamshire Safety Camera Partnership consists of Nottinghamshire Police, Nottingham City Council, Nottinghamshire County Council, the Highways Agency and Nottingham Magistrates Court.

http://www.nottspeed.com/

Problem

Before the SPECS system was installed, Nuthall Road and Western Boulevard had the worst Killed or Seriously Injured (KSI) figures in the county. Nottingham wanted to create 'speed control zones' rather than target individual accident black spots, so spot speed cameras were not considered appropriate for these key routes into the city centre.

Vysionics Solution

In July 2000, the very first SPECS systems were installed at Nuthall Road (A610) and Western Boulevard (A6514). Nottinghamshire was a DfT Safety Camera Partnership pilot partner and gained considerable experience in the operation of the UK's first average speed enforcement system.

Each SPECS system consists of video cameras linked either to a remote enforcement cabinet or, with SPECS3 systems, directly to the police enforcement office. Number plates are read via ANPR as vehicles pass through the fields of view of each camera and the average speed of the vehicle is calculated between any two cameras. If this exceeds the Police threshold a violation file is created.

Results

Across all Nottinghamshire SPECS installations, KSI figures have fallen by an average of 76%.

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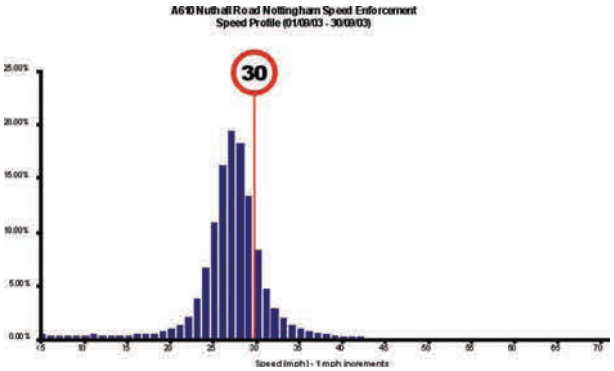
Technology Overview

There are now eighteen roads controlled by SPECS or SPECS3 cameras in Nottingham City and Nottinghamshire County. The cameras are mounted on prominent single arm and double arm columns. These camera columns create highly visible gateways to the 'speed control zone', with repeat columns acting as a powerful reminder to drivers that they are inside a speed monitored area.

Driver behaviour is noticeably better with average speed cameras as compliance is maintained throughout the whole speed restriction zone. Spot speed cameras often cause 'surfing' or sudden braking at the camera, followed by an increase in speed directly after the camera; this creates a wide distribution of speeds promoting flow breakdown and congestion. In contrast to this, average speed enforcement leads to a low standard deviation in speeds, creating a smooth, uniform flow.

Solution Benefits & Results

All SPECS sites in Nottinghamshire have delivered significant KSI reductions, with an average reduction of 66% and some sites still recording 100% reduction several years on. During the first three years following the SPECS installation on the A610, an average speed reduction of 9 mph was recorded (baseline average 33 mph, 2003 average 24 mph).



"Driving habits have been affected within the SPECS zones with a far greater level of compliance than expected. There is a more even traffic flow within SPECS Speed Controlled Zones, and it has almost removed the dash between major junctions."

Nottinghamshire Safety Camera Partnership

Award Winning Solution

The Nottinghamshire Safety Camera Partnership with Vysionics ITS were awarded a Prince Michael International Road Safety Award. The Technology Award was presented in 2002, in recognition of the improvement to road safety offered by the SPECS solution.

Prince Michael
INTERNATIONAL
ROAD SAFETY AWARDS
Recognising achievement and innovations which will improve road safety

Speaking about the award, Alick Whitfield, BSI, said

"SCS has been honoured for its outstanding innovation which has improved compliance with speed limits and reduced casualties in the areas where SPECS has been installed."

Sites (years post-installation data)	KSI (Killed or seriously Injured)		
	Before*	After**	% Change
A46 Cotgrave (4y 7m)	11.0	3.9	-64%
A46 Fosse Road (7y 4m)	11.0	4.1	-63%
A52 Bingham (6y 7m)	18.0	5.0	-72%
A52 Radcliffe Road (6y 7m)	7.0	1.8	-74%
A52 Saxondale (6y 7m)	11.0	1.4	-84%
A631 Gringley (7y 7m)	6.0	0.4	-94%
A631 Scaftworth (7y 5m)	6.0	0.0	-100%
A6514 Ring Road (12y 0m)	36.0	15.0	-58%
B6004 Oxclose Lane (4y 3m)	4.0	0.0	-100%
A610 Bobbers Mill (11y 11m)	15.0	6.3	-58%
* 3 years prior to SPECS installation ** After SPECS installation, adjusted to 3 years equivalent			-76%

Vysionics Overview

Vysionics Intelligent Traffic Solutions was formed in 2010, bringing together Speed Check Services and Computer Recognition Systems to build on both companies' success and experience in delivering innovative solutions to the traffic technology market.

Vysionics ITS provide a one-stop service for traffic information, management and enforcement solutions from initial consultation, design and manufacture to the installation and on-going maintenance.

VYSIONICS

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