

SPECS – At a Glance

(1) BACKGROUND

Developed and approved over a period of 7 years by Symonds Consultancy and in partnership with ANPR provider Computer Recognition Systems, SPECS gained approval in 1999. SPECS is provided by Speed Check Services Ltd (www.speedcheck.co.uk)

Probably due to rigorous UK approval requirements, there are a limited number of competitors in the speed camera market. SPECS continues to be the *only average speed* safety camera system to have received UK Home Office Type Approval (HOTA). Other manufacturers in Europe have developed a similar product (Siemens, Gatso BV) but have not submitted for UK approval. The arduous process appears to be holding them off.

(2) MARKETPLACE

SPECS is targeted at two key markets; Safety Camera Partnerships (permanent installations) and Highways Agency / Scottish Executive / Welsh Assembly (temporary roadworks).

Safety Camera Partnerships

http://www.dft.gov.uk/stellent/groups/dft_rdsafety/documents/page/dft_rdsafety_025918.hcsp

Full details about the National Safety Camera programme can be found on the DfT web page above.

Essentially, Safety Camera Partnerships are non-profit making organisations which have been established in each county to manage the DfT 'cost-recovery' scheme. Partnerships comprise of Local Authorities, Police, NHS, Crown Prosecution Service, the Magistrates Court and the Highways Agency. Partnerships are responsible for operating safety cameras in their area and subject to meeting strict criteria laid down by DfT, partnerships may reclaim their operational costs from the Treasury.

Competition:

Fixed cameras - Serco (Gatso), Monitron (RedSpeed - digital), Truvelo, Peek

Mobile cameras – LTI + Lastech,

Highways Agency, Scottish Executive & Welsh Assembly

http://www.highways.gov.uk/knowledge/saferdriving/about_intro.htm

<http://www.scotland.gov.uk/Topics/Transport/Roads>

<http://www.wales.gov.uk/subittransport/>

1,500 people on motorways and trunk roads were injured in roadworks during the year 2000 in more than 800 accidents. 11 roadworkers were killed in roadworks on motorways or trunk roads in England between October 2000 and February 2002. The Highways Agency is responsible for the construction and maintenance of the English trunk road and motorway network and has a responsibility to improve the safety of both roadworkers and motorists alike travelling within their works areas.

SPECS is one of only two Temporary Automatic Speed Cameras At Roadworks (TASCAR) systems which have been formally approved by the HA for use in England & Wales. Speed cameras are used to enforce temporary speed restrictions during the length of major roadworks schemes.

Competition:

Serco (Gatso)



SPEED CHECK

(3) FEATURES AND BENEFITS

Effective Speed Control over Distance

The SPECS system operates in pairs of cameras, each pair creates a speed control zone. Each speed control zone can be between 200 metres to 10 kilometres in length.

By measuring a vehicle's average speed over distance rather than at a single location, SPECS achieves link-long compliance, i.e. drivers stay within the speed limit throughout the length of the control zone.

The 'Fair' Alternative to Speed Control

SPECS is widely perceived as a fairer system; it gives motorists a chance to slow down upon entering the control zone in order to regulate their average speed, instead of 'catching them unawares'. SPECS cameras are designed to be highly visible and to firstly act as a deterrent. SPECS is therefore less open to accusations of being a 'cash generator'.

The official results achieved in permanent SPECS zones demonstrate the extent of the system's effectiveness at slowing drivers down, as opposed to simply catching them.

Calms Traffic flow and Eliminates 'Surfing' Between Cameras

The TRL report 'Speed Changes at a Camera Site' **PR/SE/708/03** adds strength to anecdotal evidence that the zone of influence surrounding a traditional 'spot-speed' camera can be from as little as 200m. Furthermore, stories of motorists speeding up in between traditional camera sites and braking sharply at the next camera abound. This practise of 'surfing' from camera to camera is often regarded as a severe accident risk in itself.

SPECS commands speed compliance the length of every speed control zone, and removes the common practice of reactionary braking at traditional camera locations. This in turn leads to a smoother flow and often a greater throughput of traffic.

Ideal for Areas of Traffic Management

During road works the risk of accidents increases due to unexpected changes to the road layout. Site personnel are at particular risk of death and injury when fast moving traffic is present. SPECS ensures safer movement of traffic throughout the works area, providing increased protection to site workers.

Digital System – Digital Storage

Unlike traditional 'wet film' cameras, SPECS speeding violations are recorded digitally. Tens of thousands of records can be held on a single disk, therefore SPECS has the ability to record offences long after a traditional 35mm film has been used up. Subsequently, the Police do not have to retrieve the data so frequently. Furthermore, removing the requirement for wet-film developing gives the Police a lower per unit offence processing cost.

Digital System - Quick and Easy Viewing for the Police

SPECS is supplied to the Police with an easy to use Installation to view offences. Greater Manchester Police reported that in the time taken to view a single wet film offence, they could view 6 SPECS offences. This saving in police time reduces the administrative burden and allows them to focus their resources in other areas.

Offence Data – Safe Access for the Police

Unlike 'wet film' cameras the offence data is not stored inside the camera housing. The cabinet containing the violation disk is located at a safe and convenient location for the Police.

Additional Functionality

Each SPECS system around the country is unique and designed to meet the particular requirements of the road and client.

SPECS is a flexible system and can be combined with Vehicle Activated Signs, to further encourage motorists to slow down before 'being caught'.

Because SPECS uses ANPR cameras, there is the possibility of using the system for the purpose of identifying any criminals passing through the zone, and maximising the return on investment. This is currently under trial.

(4) COST COMPARISON

As there is no other average speed product in the UK market, SPECS is constantly compared to traditional 'spot-speed' cameras when it comes to cost. At around £290k for a fully installed SPECS system compared to around £45k for a single spot speed camera, at first glance the two do not compare.

However, a practical example shows that SPECS can be justified in terms of:

Up-front capital cost: One SPECS system can replace multiple 'spot speed' cameras.

Human and economic cost: SPECS' superior track-record of reducing casualties

Improved driver behaviour: Speed compliance throughout control zone, no 'surfing'

Reduced administrative cost: Minimises 'back-office' processing for Police

With the 'zone of influence' of spot-speed cameras being as little as 200¹ metres, to effectively enforce a 1.5km stretch of road, six traditional cameras would be required – equivalent to the cost of a single SPECS system.

Moreover, current DfT rules prevent speed cameras being located so close together, and such a cluster of cameras would engender dangerous reactionary braking patterns.

In addition, a single SPECS system requires less administration than collecting speeding evidence from six separate cameras.

¹TRL report looking at the effectiveness of 'spot speed' cameras (PR/SE/708/03 Speed Changes at a Safety Camera Site) states that "speed reductions occur over a very small length of the carriageway and that at a distance of 200 metres beyond the safety camera location the proportion of traffic speeding is rising rapidly"

See the example below of a cost benefit analysis used in the justification of using a SPECS system (providing an overall control zone of 4.5km) instead of 6 spot speed cameras (3 in each direction to cover the same area)

(4.1) Sample Safety Camera Type Evaluation

	SPECS	Spot Speed camera
Cost of equipment	£293,000	£270,000
3-year KSI savings	7.38 (9 KSI x 82%) (b)	3.51 (9 KSI x 39%) (c)
Value of savings in 3 years Where accident cost = £245,163 (HEN 1)	£1,81 million (7.38 x 245,163)	£860,522 (3.51 x 245,163)
Value of savings in first year	£603,333 (1,81m / 3 years)	£286,841 (860,522 / 3 years)
First Year Rate of Return	206%	106%

Notes

- (a) KSI – Killed or Seriously Injured, accident statistic used by DfT
- (b) 82% - figure taken from Northamptonshire Safety Camera Partnership. The SPECS installation on the A43 Lumbertubs Way produced a 82% reduction in KSI statistics during it's first 18 months of operation – (compared with 3 years data taken previous to installation).
- (c) 39% - figure taken from Northamptonshire Safety Camera Partnership. The reduction in KSI achieved at traditional 'spot-speed' sites in the county.
- (d) (HEN1) – accident cost taken from DfT report 'Highways Economics Note 1.2002' which gives an Evaluation of the Benefits of Prevention of Road Accidents and Casualties

(5) POSITIONING

Speed Check currently has no direct competition from other average speed camera manufacturers in the UK marketplace. SPECS is therefore promoted alongside other camera types, and is positioned as a far superior system in terms of features and benefits.

Speed Check is striving to increase awareness of average speed camera technology, and aims to promote SPECS to both industry and the general public as 'the acceptable face' of speed enforcement.

(6) GLOSSARY

CRS	Computer Recognition Systems
Point-to-Point speed camera	Average Speed
Link-Long enforcement	Average Speed
Time over Distance camera	Average Speed
Video speed enforcement	Average Speed
SVDD (Speed Violation Detection and Deterrent)	Formal approval name for SPECS
CRS	Computer Recognition Systems
HOTA	Home Office Type Approval
PSDB	Police Scientific Development Branch
ACPO	Association of Chief Police Officers
RPET (committee)	Road Policing Enforcement Technology
SCP	Safety Camera Partnership
DfT	Department for Transport
TASCAR	Temporary Automatic Speed Cameras at Roadworks