traffic safety

OVERVIEW

Northamptonshire has been operating the SPECS average speed enforcement system since 2001, as one of the first 'Safety Camera Partnerships' to pilot the DfT's hypothecation scheme. The SPECS systems are used to reduce casualties and improve traffic flow on two of the county's Red-Routes.

CUSTOMER

Northamptonshire Safety Camera Partnership.
The partnership consists of Northamptonshire Police, Northamptonshire County Council, the Highways Agency, Northamptonshire NHS Health Authority and Northamptonshire Magistrates Court.

www.reducingroadcasualties.com

PROBLEM

A 4km section of the A43 Lumbertubs Way was one of the county's most hazardous Red-Routes, with 63 Personal Injury Collisions (PIC) and 11 Killed or Seriously Injured (KSI) in the three years prior to installation. In addition, as a heavily-used primary road, the A43 Red-Route required a solution that would maintain traffic flow volumes whilst ensuring compliance with the speed limit.

SCS SOLUTION

Four SPECS pairs have been used on the A43 since October 2001. Following their success, a further four pairs were installed on the A428 in 2004. Each SPECS pair consists of two digital video cameras, linked by fibre optic cable to a remote enforcement cabinet. The video cameras continuously capture images of vehicles as they pass through the cameras view. The number plates are read using Automatic Number Plate Recognition (ANPR) and the average speed of the vehicle is calculated between the two camera's views. If this exceeds the Police threshold, an offence record is created.

RESULTS (comparing figures from the three years prior to installation with the three years post installation)

- KSI figures have reduced by 85% on the A43 Lumbertubs Way
- 85th % speeds have fallen from 58mph to 45mph

TECHNOLOGY OVERVIEW

The SPECS camera pairs are clearly positioned on distinctive blue double-armed columns in the central reservation; the cameras are mounted on each arm so that both directions of traffic flow can be monitored.

Signs have been erected along Lumbertubs Way warning motorists of speed enforcement taking place encouraging them to comply with the 50mph speed limit for the whole route.

SPECS TICKET PROCESSING

Northamptonshire Police wanted to make use of their available IT infrastructure whilst keeping the ticketing process as streamlined as possible. Speed Check Services designed an effective system that integrated different back-office technologies in order to meet their requirements.

The digital nature of the SPECS system significantly reduces the labour time required to process violations, compared with wet film processing. A pre-formatted Write Once Read Many (WORM) disk is used by the Central Ticket Office (CTO) for the processing of violations. This can store up to 20,000 violations rather than the few hundred that traditional wet film can.

SOLUTION BENEFITS

The Northamptonshire Safety Camera Partnership introduced the SPECS system to the A43 to "reduce speeds and cut collisions, casualties and the associated cost and suffering to the community that results from crashes". The three year post installation statistics prove that the SPECS solution has proved extremely effective in this regard. In addition to these reductions in accidents and injuries, the reduced speed profile on the road has not affected the traffic flow volumes – a key benefit for a Red-Route.

3 yr Prior to SPECS	3 yr Post SPECS
7 KSI	1 KSI
29 PIC	21 PIC
85th % = 58mph	85th % = 45mph

SCS OVERVIEW

Speed Check Services provides a range of Intelligent Transport Systems (ITS) to the UK's road network. Three operating divisions target key market sectors:

traffic operations: implementing solutions to manage traffic flow on the road network
traffic information: using technology to keep the public informed about road conditions
traffic safety: protecting road users and enforcing traffic law

Drawing on considerable experience and a diverse technology toolkit, Speed Check Services can consult, design, install and maintain a broad range of ITS solutions.

SCS
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