

USE OF SPEED AND RED LIGHT CAMERAS FOR TRAFFIC ENFORCEMENT: GUIDANCE ON DEPLOYMENT, VISIBILITY AND SIGNING

INTRODUCTION

1. Safety cameras provide a valuable and cost-effective method of preventing, detecting and enforcing speed and traffic light offences. They encourage changed driver behaviour and are also proven to make a significant contribution to improving road safety for all road users. Safety cameras therefore play an important role in an integrated road safety strategy.
2. On 15 December 2005 the Secretary of State for Transport announced the ending of the National Safety Camera Programme and netting off funding arrangement for cameras in England and Wales. Camera funding, activities and partnerships are being integrated into the wider road safety delivery process from 1 April 2007.
3. The move gives local authorities, the police and other partners greater freedom and flexibility to pursue whichever locally agreed mix of road safety measures they see fit in order to reduce road casualties in their area. With this also comes greater local accountability for the future deployment and operation of cameras.
4. The fundamental objective underlying the National Safety Camera Programme has been to reduce speeding, collisions and casualties at locations where excess speed represents a road safety problem, and to achieve this result through camera locations being publicised, signed and visible to road users. Whilst recognising greater local flexibility, it is the Welsh Assembly Government's intention that road safety partnerships continue to follow this approach in respect of safety camera enforcement at specific sites as part of their local road safety strategies.
5. This document provides guidance and best practice advice on the deployment of speed and red light cameras in these circumstances after 1 April 2007. The guidance does not restrict or fetter the police's discretion to enforce covertly anywhere, at any time. However covert enforcement cannot be funded from the grant being made available from 1 April 2007.
6. This guidance supersedes the Handbook of Rules and Guidance for the National Safety Camera Programme for England and Wales 2006/07, which is now cancelled.

BACKGROUND

7. Safety cameras are those that enforce speeding and / or traffic light offences. A number of independent research studies of the National Safety Camera Programme have shown that cameras are an extremely effective mechanism for reducing vehicle speeds and road casualties at camera sites. These include:
 - a. Cost benefit analysis of traffic light and speed cameras (August 1996)
 - b. A cost recovery system for speed and red-light cameras - two-year pilot evaluation (February 2003)

- c. The National Safety Camera Programme - three-year evaluation report (June 2004)
 - d. The National Safety Camera Programme - four-year evaluation report (December 2005)
8. These reports can be found on the Department for Transport web site at www.dft.gov.uk/safetycameras.
 9. The independent four-year evaluation report of the National Safety Camera Programme, covering over 4,100 camera sites operating in some 38 safety camera partnership areas, was published on 15 December 2005. It recorded a 42 per cent reduction in death and serious injury and a 22 per cent reduction in personal injury collisions at camera sites.
 10. The four-year evaluation also considered the effect of 'regression-to-mean' - the effect arising because the number of collisions in the period before the installation of a camera may be higher than the long-term average for that location. It concluded that even after allowing for this phenomenon, safety cameras still achieve substantial and valuable reductions in collisions and casualties.

THE LEGAL FRAMEWORK

11. The Road Traffic Offenders Act 1988 and The Road Traffic Act 1988 require speed enforcement devices to be type approved by the Home Secretary before evidence from them can be used in court proceedings.
12. The Home Office type approval process provides a public assurance of any equipment's accuracy and reliability. Type approval is granted only to devices that have a high degree of accuracy and reliability to satisfy rigorous testing by the Home Office Scientific Development Branch (HOSDB) and the police in the field. Testing ensures that all devices are robust, reliable and can produce accurate readings or images under a variety of extreme conditions. Type approval is granted to a particular kind of device with each individual device required to be manufactured to the same high standard.
13. Documentation setting out the rigorous standards with which type approved equipment is required to comply, in both design and operation, can be found on the Home Office Scientific Development Branch area of the Home Office website at <http://scienceandresearch.homeoffice.gov.uk/hosdb/>.
14. The Road Traffic Act 1991 makes various provisions relating to the use of automatic devices for the detection of speeding and traffic light offences. This includes, by virtue of section 95A of the Highways Act 1980 (as inserted by section 40 of the Road Traffic Act 1991), providing highways authorities with the power to install and maintain on or near a highway structures and equipment for the detection of traffic offences.
15. The installation of traffic and speed cameras is not development as defined in the Town and Country Planning Act 1990, so neither planning permission nor permitted development rights are required for their installation.

16. Part VI of The Road Traffic Regulation Act 1984 requires that unless a road has been designated special road status (i.e. a motorway), speed limits are implemented either by virtue of the provision of a system of street lights (restricted road status) or through Traffic Regulation Order. Traffic Authorities are required to ensure that all speed limit signing complies with the statutory requirements prescribed in The Traffic Signs Regulations and General Directions 2002 (TSRGD), as amended or have been specially authorised by the Assembly Government.

IDENTIFYING THE APPROPRIATE SOLUTION (AT SPECIFIC LOCATIONS)

17. Local authorities, the police and the other local partners are encouraged to work closely together to identify the top priorities for improving road safety in the area of the partnership, including enforcement activity, and to agree a joint strategy and their respective roles within that strategy.

18. Safety cameras are one of a wide range of measures that are effective at reducing vehicle speeds and casualties when used correctly and in the appropriate circumstances. The local partners should therefore work together to decide the most suitable approach to safety problems at specific locations depending upon the evidence and local needs and considerations. This should include investigation of the nature of the problem, including current vehicle speeds, the proportion of vehicles exceeding the speed limit in free-flowing conditions, the proportion of different collision types and the causes of those collisions. It is recommended that before a decision is made to use camera enforcement that traffic authorities confirm that the speed limit at each proposed site is appropriate.

19. For selecting potential camera sites, it is recommended that analysis of collision data should be undertaken over a minimum period (e.g. most recent 3 years, or preferably 5 years) to determine whether a camera is an appropriate solution to reduce speeds and / or collisions at that site. Average (mean) and 85th percentile speeds should also be collected so that the data is not more than 12 months old. This will help to demonstrate the level of non-compliance with the speed limit, which itself should also have been constant over the same minimum period.

20. The local partnership is fully accountable for these decisions and should be proactive in communicating information on the deployment of cameras through the usual channels.

21. Vehicle Activated Signs (VAS) that are TSRGD compliant have been shown to be effective at reducing speeds and collisions when used instead of or in conjunction with safety cameras and may be considered as part of an overall casualty reduction strategy. Reference should be made to TAL 1/03 'Vehicle Activated Signs' and TRL Report 548 (Winnett and Wheeler) when considering the use of VAS.

22. Speed Indicator Devices (SID) are not prescribed as traffic signs in TSRGD but we recognise that these are widely used to help raise awareness of speeding, particularly at community concern sites. SID should not be used as an alternative to prescribed speed limit signing. Care should also be taken to ensure that the use of SID do not mislead or confuse road users as to the posted speed limit on a road, or affect the legality of any enforcement undertaken.

DEPLOYMENT

23. The primary objective for camera deployment is to reduce deaths and injuries on roads by reducing the level and severity of speeding and red light running. The aim is to do this by preventing, detecting and enforcing speed and red light offences, which includes encouraging changed driver behaviour by the use of safety camera activity.
24. All camera activities have the potential to deal with large numbers of alleged offenders. It is therefore essential that from the earliest stages when the use of cameras is being considered, discussions take place with all agencies at a local level and an agreement is reached on detailed plans for implementation. The police are responsible for operating and maintaining the cameras and for initiating follow up procedures to deal with offences detected while Her Majesty's Court Service (HMCS) is responsible for collecting fines or fixed penalties and endorsing licences. Their full co-operation and agreement for new or continued camera use is therefore essential and should be secured at an early stage.
25. In view of local decision making and accountability, we do not want to be prescriptive about the conditions to be met for the use of safety cameras. However evidence from the evaluation reports for the National Safety Camera Programme for England and Wales (2000 – 2004) has continuously shown that the use of cameras has been effective when deployment was based upon locations where a specific level of Killed and Serious Injury (KSI) collisions and excessive speed had occurred.
26. Included at Annex A are the site selection criteria that applied at the end of the National Safety Camera Programme. Traffic authorities and road safety partnerships may wish to consider using these, as they have developed with the extended roll out of the National Safety Camera Programme. These previous site selection criteria have been shown to reduce speeds and casualties at camera sites and are now generally recognised as they have been made publicly available. It is recommended that locally agreed deployment criteria are developed under which traffic authorities and road safety partnerships have a systematic approach to site selection that can be demonstrated locally.
27. Whilst the primary objective for camera deployment is to reduce KSIs at known collision locations, cameras can also be beneficial where there is community concern – i.e. the local community requests enforcement at a particular site because traffic speed is causing concern for road safety, or where there are engineering factors that cannot be implemented in the short term and enforcement is being used as an interim measure. Improving quality of life in these communities should also be taken into account.
28. We believe that ensuring compliance with temporary speed limits at road works is extremely important to protect both the travelling public and the workforce undertaking the road works. The use of temporary cameras, to enforce temporary lower speed limits, should be seriously considered at all major road works to reduce the likelihood of collisions occurring and to ensure road worker safety.
29. As mentioned in paragraph 11 above, all enforcement devices must be type approved and there are many devices that have received type approval. The appropriate device(s) will depend on local agreement. There are four main types of

equipment and circumstances in which these may be appropriate are indicated below:

- Fixed speed camera sites – used at sites where collisions are clustered around a particular point or location;
- Mobile speed camera sites – used at sites where collisions are scattered along a length of road or where enforcement is needed at specific times of the day or year. This type of enforcement can also be used to complement fixed enforcement;
- Average speed camera sites (fixed) – this type of enforcement has the effect of calming the speed over a longer distance and can be used at sites where a significant number of collisions are scattered along a length of road and for major road works enforcement.
- Red light camera sites – used at traffic light junctions where collisions are recorded because of vehicles failing to comply with a red traffic light.

30. All of the four camera types above may be used as part of wider route treatments.

31. Road safety partnerships will have the flexibility to use type approved equipment to enforce 20mph limits and zones from 1 April 2007. However, we remain of the view that 20mph zones should continue to be self-enforcing, where appropriate through traffic calming.

PRE-ENFORCEMENT CHECKS

Non compliance with the Traffic Regulation Order requirements or speed limit signing requirements may mean that the speed limit is unenforceable.

32. Whatever locally agreed deployment strategy is adopted, there are a number of pre-enforcement checks that are recommended before camera enforcement commences:

- Ensure that the speed limit is appropriate;
- Ensure that the Traffic Regulation Order (where applicable) is legal and correct – unless a road has been designated special road status (i.e. a motorway), speed limits are implemented either by virtue of the provision of a system of streetlights (restricted road status) or through Traffic Regulation Order. If a Traffic Regulation Order is required, this should be reviewed to ensure that it is still appropriate and lawful;
- Ensure signing is lawful and correct – traffic authorities are required to ensure that speed limit and camera signing complies with the statutory requirements prescribed in TSRGD or as specially authorised.

33. These checks should be undertaken each time prior to a period of enforcement taking place and for those areas where enforcement is not regularly undertaken, checks should be undertaken on a regular (at least six monthly) basis. In all cases,

camera and speed limit signs must not be obscured: they must be positioned so that they are clearly visible at all times.

34. When it has been confirmed that a site is suitable for camera enforcement, the enforcement is undertaken in accordance with the ACPO Code of Practice for Operational Use of Road Policing Enforcement Technology.

35. Consideration should be given to potential Health and Safety implications of all activities and risk assessments carried out as appropriate.

SIGNING, VISIBILITY AND CONSPICUITY

36. The following signing guidance is aimed at safety cameras whereas the visibility and conspicuity guidance is aimed at speed cameras rather than red light cameras, as in all cases a red traffic signal will clearly indicate that a driver is required to stop.

37. As part of the National Safety Camera Programme, signing, visibility and conspicuity rules were mandatory to enable costs to be netted off from fine income and this has helped to highlight to motorists where enforcement is being undertaken, and combined with the communications activities undertaken as part of the programme, why enforcement is being undertaken. The Assembly Government's intention is that this high visibility approach should be retained. In view of the importance of consistency on this fundamental point and to avoid confusion, we expect that enforcement by any road safety partnership, or representative of a road safety partnership, should follow the guidelines that are in this section.

Signing

38. A speed limit is made lawful by the presence of street lights and / or a Traffic Regulation Order and the provision of speed limit signs appropriately located that comply with the TSRGD.

39. Last year the Department for Transport published an aide memoire that provides guidance on speed limit and safety camera signing and is designed to ensure correct and consistent signing across the country. It does not replace or update the legal requirements of TSRGD but should be considered as best practice. In summary:

- Camera signs should continue to be co-located with speed limit signs where permitted and practicable;
- For fixed speed enforcement, co-located camera and speed limit reminder signs should continue to be placed to allow the signs and speed camera to be visible to the driver in the same view. A camera sign may also be placed not more than 1 km from the first camera housing in the direction being enforced (including or excluding side roads at the discretion of the road safety partnership);
- For mobile enforcement, co-located camera and speed limit reminder signs should continue to be placed in advance of the point of entry to the site or route (including or excluding side roads at the discretion of the road safety partnership);

partnership) in the direction being enforced. Camera signs should also continue to be placed thereafter at intervals of around 1 km throughout the length being enforced.

40. Reference should be made to TAL 1/95 'Speed limit signs – a guide to good practice' when reviewing speed limit signing. On dual carriageway roads and motorways wherever possible an additional camera warning sign should be placed on the central reserve.
41. In all cases, camera and speed limit signs must not be obscured but be positioned to be clearly visible at all times.
42. On every occasion before commencing enforcement at a camera site, the enforcement officer should be satisfied that the relevant speed limit and safety camera signing is present and correct.

Visibility

43. Depending upon the enforcement method used, speed camera housings (including tripod-mounted cameras), *or* the camera operator *or* the mobile enforcement vehicle should be clearly visible from the driver's viewpoint at the following minimum visibility distances:
 - 60 metres where the speed limit is 40 mph or less
 - 100 metres at all other speed limits.
44. On every occasion before commencing enforcement at a camera site, the enforcement officer should check that the visibility guidance is met.

Conspicuity

45. Fixed speed camera housings located within an area of street or highway lighting should be coloured yellow either by painting both the front and back of the housing or covering both the front and back of the housing with retro-reflective sheeting. In an area not covered by street or highway lighting the speed camera housing should be treated with yellow retro-reflective sheeting. The recommended paint colour is No.363 Bold Yellow of BS381C:1996. The retro-reflective sheeting should meet the requirements of BS EN 12899-1:2001 or a suitable microprismatic sheeting conforming to BS 8408 or an equivalent Standard of a European Economic Area State.
46. Vehicles from which enforcement may take place should be liveried and clearly identifiable as an enforcement vehicle. Visibility of the livery should be maintained during enforcement e.g. where it is necessary for the doors to be open, markings or livery should be apparent to approaching traffic in the direction of enforcement. If the enforcement officer is undertaking enforcement away from the vehicle, the enforcement officer should be conspicuous by wearing high visibility clothing.
47. On every occasion before commencing enforcement at a camera site, the enforcement officer should check that the conspicuity guidance is met.

This camera signing, visibility and conspicuity guidance has no bearing on the enforcement of offences. Non compliance with this guidance does not provide any mitigation of, or defence for, an alleged offence committed under current UK law.

COMMUNICATIONS & PUBLICITY

48. The Assembly Government recommends that partnerships continue to proactively provide information about safety cameras, including their deployment, and the benefits they bring, but do so as part of a wider approach to road safety-related communications.

49. That wider approach should aim to raise public awareness of the behaviours that can cause casualties on the roads, the partnership's approach to dealing with these behaviours, and the steps the public can take to ensure they and others drive safely.

50. When partnerships are communicating information on safety cameras, we recommend the following be considered a priority:

- the location of camera sites;
- the criteria for the location of camera sites;
- types of cameras, how they work, and why they are deployed;
- the justification for the use of camera sites;
- local casualty reduction figures;
- the effect that cameras have had on casualty figures in the local area;
- contact details for the partnership

51. Every effort should be made to publicise the use of cameras in an area. The opportunity should be taken to emphasise the road safety objectives of camera enforcement, as well as to enhance the deterrent effect through this publicity to improve compliance.

52. Local publicity campaigns should complement the THINK! road safety campaign. More information on this can be found at: www.thinkroadsafety.gov.uk.

MONITORING EFFECTIVENESS

53. As with all other road safety or casualty reduction interventions, data should be collected to monitor effectiveness of safety camera use. It is recommended that as a minimum, speed data and collision data is routinely collected at camera sites. Additionally, other data such as public opinion and the contribution that cameras make to the overall casualty reduction picture should be continued.

54. Road safety partnerships are encouraged to, at least annually, review all their existing camera sites and other collision hotspots (i.e. roads where there appear to be a comparatively high number of collisions) within their area. This review should ensure that all sites have been identified where casualties could be reduced by the

use of safety cameras or other road safety interventions. It should also help to inform the enforcement strategy to ensure that camera resources continue to be deployed to best effect in reducing collisions and casualties.

55. This should be an ongoing process to identify those sites where camera enforcement is judged to be a continuing or appropriate solution and should take into account views put forward by both local communities and road users.

56. In particular, the review should identify sites where a good safety record has been achieved and therefore make an assessment on whether safety camera enforcement needs to be retained to maintain effective compliance. Or the review may identify sites where there appears to be a continuing problem of high numbers of collisions notwithstanding the use of cameras and this will enable the assessment of whether further complementary or different action should be taken.

57. Any monitoring undertaken should consider the effect of 'regression-to-mean'. This may be particularly relevant if a camera site is selected when the collision record is at its worst i.e. the number of collisions in the period before the installation of a camera may be higher than the long-term average for that location.

58. Whilst the Assembly Government will not be collecting camera data, it will wish to monitor the effectiveness of the funding being made available from 1 April 2007. Details of the monitoring requirements will be issued in due course.

Contact for further information

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Site selection criteria that applied at the end of the national safety camera programme

Rule		Fixed speed camera sites		Mobile speed camera sites		Routes		Red light or combined red light speed camera sites
1	Site or route length requirements	Between 0.4 km and 1.5 km		Between 0.4 km and 5km		Between 5km and 20km		From stop line to stop line in direction of travel
2	Number of killed and serious collisions (KSI)	At least 3 KSI collisions per km in the baseline period*.		At least 1 KSI collisions per km (average) in the baseline period*.		A minimum of 3 existing core sites within the length. (There are no further requirements) OR Has at least 1 KSI collision per km (average) in the baseline period*. and meets the PIC total value below.		At least 1KSI collision within the junction in the baseline period*. Selection must be based upon a collision history of red light running.
*The baseline period is the most recent 36 month period available when proposal is submitted, where the end date is within 12 months of the date of submission.								
3	Total value required	Built up 22 /km	Non built up 18 /km	Built up 11 /km	Non built up 9/km	Built up 8 /km	Non built up 6 /km	10
		For sites up to 1km the above value is required. For sites longer than 1km the value is per km.						
4	85 th percentile speed at proposed sites	Speed survey shows free-flow 85 th percentile speed is at or above ACPO enforcement threshold in built-up areas and 5 mph over maximum speed limit in non-built up areas. This can apply to all vehicles or a vehicle class but must be compared consistently.						Not applicable
5	Site conditions that are suitable for the type of enforcement proposed	Loading and unloading of camera can take place safely.		Location for mobile enforcement is easily accessible and there is space for enforcement to take place in a visible, legal and safe manner.		The location of collisions in the baseline period will determine the length of route.		Loading and unloading the camera can take place safely.
6	Suitability of site for camera enforcement	The Highway Authority must undertake a site survey, demonstrating the following: (a) The speed limit has been reviewed confirming that camera enforcement is the right solution; (b) There is no other cost effective engineering solution that is more appropriate; (c) That the Traffic Regulation Order (where applicable) and signing are lawful and correct.						
<p>New camera sites will be selected using an assessment that includes the level of fatal, serious and slight collisions. The combined level of collisions will be expressed as a numerical scale (see below) and assessed relative to the road classification for the site - whether it is either a 'built up' or 'non-built up' area and according to the type of site i.e. route, fixed, mobile or red light.</p> <p>Fatal or serious injury collision = 5 (i.e. 2 serious collisions = 10) Slight injury collision = 1 (i.e. 5 slight collisions = 5)</p> <p>'Built up area' is defined as a road with a speed limit of 40 mph or less. 'Non-built up area' is defined as a road with a speed limit of 50 mph or more.</p>								