



# Standards and Guidance Documents

Document Title	Temporary Automatic Speed Camera System for the Enforcement of Mandatory Speed Limits at Roadworks (TASCAR)
Reference	IAN 113/08

Date	2008
Publisher	National Highways
Category	Guidance
Search terms	enforcement camera system; roadworks

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## **Interim Advice Note 113/08**

# **Temporary Automatic Speed Camera System for the Enforcement of Mandatory Speed Limits at Roadworks (TASCAR)**

## **1. Introduction**

This Interim Advice Note (IAN) is intended for use by those engaged in the specification, procurement and supply of TASCAR systems for roadworks on the Trunk Road Network.

TASCAR is a template which is often used as part of Agent/Contractor contracts to ensure consistency is maintained across the network when using temporary safety cameras during road works. The current Appendices in the Manual of Contract Documents for Highways Works, relating to the specification and procurement of TASCAR Systems, were last revised in 2001, since then both the technology and the type approval process for such equipment have changed. The template has now been reviewed and updated through close liaison with Network Operations and Major Projects, as well as ACPO, to bring the content in line with the new requirements and technology. The new appendices are contained within Annex A.

## **2. Implementation**

This Interim Advice Note (IAN) sets out the amendments to the current Notes for Guidance Series 100 Appendix 1/26 and Appendix 1/27, and Notes for Guidance Series 1200 Appendix 12/1 of the Manual of Contract Documents for Highways Works (MCHW).

This Interim Advice Note should be used forthwith on all projects for the assessment, design, construction, operation and maintenance of motorway and all-purpose trunk roads (and roads designated by the Overseeing Organisation in Northern Ireland) except where the procurement of works has reached a stage at which, in the opinion of the Overseeing Organisation, its use would result in significant additional expense or delay progress (in which case the decision must be recorded in accordance with the procedure required by the Overseeing Organisation).

## **3. Withdrawal of Documents**

It is intended that these amendments to the Manual of Contract Documents to Highways Works will be incorporated into the November 2008 edition of the MCHW, at which time this IAN will be withdrawn.

## **Annex A – Amended Appendices**

### **APPENDIX 1/26: TEMPORARY AUTOMATIC SPEED CAMERA SYSTEM FOR THE ENFORCEMENT OF MANDATORY SPEED LIMITS AT ROADWORKS (TASCAR)**

#### **General**

- 1 The Highways Agency (HA) or their Managing Agent should liaise and seek approval for the operation of any TASCAR scheme, on the Strategic Road Network, with the Chief Police Officer (CPO) or nominated representative prior to issuing any form of tender. Wherever 'the CPO' appears in this Appendix it shall be construed to refer to the CPO or representative named in Appendix 1/27.
- 2 The Main Contractor (herein referred to as 'the Contractor') shall be responsible for the supply, installation and maintenance of the TASCAR system, for the Enforcement of Mandatory Speed Limits at Roadworks as described in this Appendix and in Appendix 1/27, in conjunction with the CPO. The Contractor shall ensure that the System is completely installed and fully operational from the time defined in Appendix 1/27 and that it remains in operation for the duration of the Contract unless otherwise specified in Appendix 1/27 and is removed on completion of the works.
- 3 Under the provisions of TASCAR only speed measuring devices that have Home Office Type Approval (HOTA) may be used. This also applies to installation poles or cabinets.
- 4 The number of speed monitoring sites required for this Contract is specified in Appendix 1/27. All equipment necessary to bring the sites into operation shall be provided by the Contractor.
- 5 The Contractor shall be responsible for the design of the installation which shall be approved by the HA, and CPO, before it is implemented. The Contractor shall contact the CPO to determine the operating requirements.
- 6 The Contractor shall arrange for the provision of an adequate electrical supply to all components of the operating system.

#### **Speed Enforcement System**

- 7 The TASCAR equipment shall consist of a HOTA detection and measuring device, camera recording device and flash (or other ancillary lighting) units, all of which shall be fully compatible and capable of being located in pole-mounted housings which shall themselves be capable of either fixed root or trailer mounting, all of which shall be provided as part of the Contract. If a trailer mounted system is supplied it shall be fitted with retractable de-mountable wheels. The scope shall include, but not be limited to, all equipment, poles, housings and power supplies. The quantities of equipment required are specified in Appendix 1/27.
- 8 The Contractor shall arrange for the provision of a 240v AC single-phase mains electrical supply of adequate power capacity to all components of the system. Alternatively, he may provide an equivalent supply from a local electrical generator or generators which shall be used only for this purpose. Such generator(s) shall have electric start mechanisms and be adequately regulated as to voltage and frequency to suit the accuracy requirements of the equipment provided for TASCAR and be

capable of running constantly for 48 hours without refuelling at an output of not less than 16.0 kVA at 0.8 power factor, or equivalent output. All generators shall be housed in vandal-proof containers and be securely locked. One set of keys shall be provided to the HA for them to pass to the CPO.

### **Street Furniture**

- 9 The housing and poles for the TASCAR equipment must be HOTA and shall include security-locking mechanisms to prevent unauthorised access or operation.

### **Installation**

- 10 The Contractor shall install the equipment to the requirements of this Appendix and Appendix 1/27 at the speed monitoring locations as specified in Appendix 1/27.
- 11 The Contractor shall install the poles in the individual speed monitoring locations within highway limits as instructed by the HA and shall carry out reinstatement of the surface as directed by and to the satisfaction of the HA and as specified in Appendix 1/27.
- 12 The Contractor shall ensure that suitable access arrangements are in place at each speed monitoring site including vehicle hard standings, walkways and steps where necessary. The HA and the Contractor should provide suitably located and accessible maintenance bays to allow for general maintenance and servicing of the camera unit.
- 13 The Contractor shall install the housings/poles in the positions specified, connect and commission the remainder of the equipment. The Contractor shall ensure that the camera poles are located in accordance with road restraint systems requirements detailed in TD 19/06.
- 14 The Contractor shall ensure that the site reference number is clearly indicated on both the installation and on the road surface within the field of view of the camera. Site reference numbers should be agreed with the CPO.
- 15 Any ducting, loop or piezo installation shall be carried out in accordance with HA specifications.

### **Commissioning and Acceptance**

- 16 The Contractor shall be responsible for the commissioning of the TASCAR as a whole, including secondary checks. Details of equipment commissioning procedures will be provided to the Contractor from the supplier of the system. The Contractor shall provide a secondary method of confirming the speed calculation which is the approved method for the device used under HOTA. Each HOTA speed measuring device has a different approved secondary check method.
- 17 The commissioning of the TASCAR shall be carried out by the supplier of the system in the presence of, and for acceptance by, the CPO and shall be in accordance with any particular requirements in Appendix 1/27. The Contractor shall give the HA not less than four days clear notice of his intention to carry out this work, to allow for a designated representative of the CPO to attend. Commissioning certificates shall be provided to the HA and shall include one pair of photographs or video images for

acceptance by the CPO as part of the commissioning and acceptance procedure of the system.

### **Operation and Maintenance**

- 18 The TASCAR Operator will be the CPO. Once the TASCAR has been commissioned, the repositioning of the speed monitoring equipment between the housings, or switching of detection equipment between zones and servicing, will be the responsibility of the CPO. The Contractor shall furnish whatever assistance is requested by the Operator through the HA to carry out these tasks.
- 19 All evidential media from speed monitoring sites will remain the property of the CPO.
- 20 The Contractor shall provide the CPO, through the HA, with a two hourly log showing the locations of all the speed limit and speed limit repeater signs relative to existing marker posts. It is accepted that under certain conditions, i.e. a collision in the works, this task may not be able to be completed in the timescales given and where this occurs an adequate record should be made on the log. A repeater sign shall be positioned such that one is visible in each photograph. (Refer to Chapter 8 – Traffic Signs Manual) Where there is a 24-hour CCTV system installed that is monitoring ALL speed limit and repeater signs this log can be compiled remotely.

### **Glossary of Terms**

CPO	Chief Police Officer
HA	Highways Agency
HOTA	Home Office Type Approval
TASCAR	Temporary Automatic Speed Camera System for the Enforcement of Mandatory Speed Limits at Roadworks

## APPENDIX 1/27: TEMPORARY AUTOMATIC SPEED CAMERA SYSTEM FOR THE ENFORCEMENT OF MANDATORY SPEED LIMITS AT ROADWORKS (TASCAR) – PARTICULAR REQUIREMENTS

*[Compiler: Where an instantaneous speed measuring system is to be used, paragraphs 1 to 4 apply. In this case, put "Not used" against paragraphs 5 to 6. Where an average speed measuring system is to be used, paragraphs 5 to 6 apply. In this case, put "Not used" against paragraphs 1 to 4].*

### Scope - Location and Quantities

#### Instantaneous Speed Measuring System

1 The number of speed monitoring sites required for the TASCAR on this Contract is ...  
no. The following ancillary equipment is therefore required:

Number of fixed housings	... no.
Number of live camera units	... no.
Number of monitoring only units	... no.
Number of trailer-mounted housings	... no.

2 For the purpose of this Appendix live camera units are HOTA devices at which enforcement is taking place. Monitoring only units are for speed measurement only and not for enforcement but still activate with a flash. These units should only activate for receding traffic i.e. not flash at oncoming traffic.

3 The Contractor, in conjunction with the CPO, shall supply, install, maintain and remove on completion, the TASCAR specified in Appendix 1/26 and in this Appendix at the following locations within the works as shown on Contract Drawing number (xx):

Northbound verge	Chainage .....
	Chainage .....
Southbound verge	Chainage .....
	Chainage .....
Central Reserve (CR)	Chainage .....
	Chainage .....

4 Parts of the TASCAR which are located within the central reserve may be rotated through 180 degrees at some point during the works and will require appropriate site commissioning.

#### Average Speed Systems

5 A camera outstation consists of a camera system and its lighting source. A pair of linked camera outstations is required for each monitored lane within a speed-controlled zone. The number of lanes to be monitored within the speed-controlled zone in this Contract is ....no. The lane(s) to be monitored is/are *[insert Lane no(s) here, (Lane 1 is nearside lane etc)]*. The lane(s) to be monitored only *[Compiler: It is not necessary for monitoring only outstations to be in pairs - single units can be used for this purpose]* is/are *[insert Lane no(s) here if monitoring only units required]*. *[Compiler: Each control cabinet can monitor a single pair of camera outstations at a time. However, it is not always necessary for every operational pair of cameras to be enforced at a given time. To change between camera pairs, the police swap over*

video feeds at the control cabinet location. In this way, a single cabinet can cater for up to four pairs of cameras]. The following equipment is therefore required:

Number of functional linked camera outstation pairs is .....no.  
Number of monitoring only camera outstations is .....no.  
Number of column-mounted outstations is .....no.  
Number of structure-mounted outstation is .....no.  
Number of control cabinets is .....no.

- 6 The Contractor, in conjunction with the CPO, shall supply, install, maintain and remove on completion, the TASCAR specified in Appendix 1/26 and this Appendix, at the locations as shown on Contract Drawing(s) number(s).....

#### **Chief Police Officer**

- 7 The CPO in Appendix 1/26 is the CPO for ..... [give name of police district e.g. the County of South Yorkshire, the Metropolitan Police District, Northern Ireland, etc].

#### **Provision of Speed Monitoring Site Media**

- 8 Where digital HOTA equipment is used, the Contractor will provide appropriate media such as WORM (Write Once Read Many) drives, CDs, memory sticks as appropriate, and in quantities required by the CPO for the use of the equipment for the duration of the works. If HOTA 35mm wet film systems are used, the film will be supplied to the CPO by the Contractor, typically at the rate of one film per day per live camera in operation, plus ten which shall be supplied at the commencement of the works.

#### **Installation, Commissioning and Period of Operation**

- 9 The secondary method of confirming the speed calculation of the equipment provided, which is required in Appendix 1/26 paragraph 16, shall be to Contract Drawing number ..... Cameras sited on the nearside of the carriageway shall be installed and commissioned prior to 24 hour lane closures being put into operation. Cameras sited in the central reserve shall be installed and commissioned not later than 12 hours after installation of the contraflow. Both sets of cameras shall then remain in continuous operation until a Certificate of Completion has been issued for the whole of the works. At the end of the period of operation required under the Contract, the equipment shall remain the property of the Contractor.

#### **Reinstatement of Surfaces**

- 10 Reinstatement of verge areas shall consist of backfilling any hole(s) with acceptable material to Clause 601 up to a level 100mm below specified finished levels. The remaining 100mm thickness shall be filled with topsoil Class 5B to Clause 601.
- 11 Reinstatement of paved footway areas shall consist of backfilling any holes with unbound mixture Type 1 to Clause 803 and compacting adequately such that this terminates 65mm below specified finished levels. The remaining 65mm thickness shall be backfilled with a 50mm thick layer of dense base macadam (20mm aggregate) to Clause 906 covered by 15mm thickness of dense base macadam surface course (6mm aggregate) to Clause 909. The surface course shall extend not less than 150mm beyond the hole which has been backfilled and shall be keyed into existing surfacing by its prior excavation to a depth not greater than 15mm.

- 12 Reinstatement of carriageway surfaces shall include, but not be limited to, removal from the pavement surface of the secondary speed check markings specified in Appendix 1/26, paragraph 16 and in paragraph 9 above. This shall be done either on removal of the TASCAR or on completion of the works.

### **Temporary Traffic Signs**

13 For temporary traffic signs needed with TASCAR, see Appendix 12/1 and Appendix 1/17. *[Compiler: Calibration markings may be required but are not considered to be traffic signs within the meaning of the Road Traffic Regulations Act 1984. The markings will require the agreement of the HA].*

### **Glossary of Terms**

CPO	Chief Police Officer
HA	Highways Agency
HOTA	Home Office Type Approval
TASCAR	Temporary Automatic Speed Camera System for the Enforcement of Mandatory Speed Limits at Roadworks
WORM	Write Once Read Many

## APPENDIX 12/1: TRAFFIC SIGNS - GENERAL

Add new item 1(xii) at the end as follows:

"(xii) Temporary Traffic Signs:" Add here any and all temporary traffic signs required for Temporary Automatic Speed Camera System for the Enforcement of Mandatory Speed Limits at Roadworks. See Chapter 8 – Traffic Signs Manual.

### Notes

When applying for a departure it is important that Network Operations/Major Projects is able to confirm that it has already had full consultation with the local CPO.

Reference Appendix 1/26, paragraph 14, for a successful prosecution it is important that each individual camera housing unit is clearly identifiable. Where multiple cameras are being used in a road works site, this would stop any confusion of which camera site was being used at the time the offence was alleged to have been committed.

It is desirable to include the following in the Instruction for Tendering:

'The contractor's attention is drawn to Specification sub-clause 117.32 together with Appendices 1/17, 1/26 and 1/27 which require the provision and maintenance of a (TASCAR) which will be operated under the control of the Chief Police Officer for the .....[Give name of Police district as specified in Appendix 1/27] and regularly maintained under the Contract at the expense of the Contractor in accordance with standards required by the Home Office in accordance with current legislation for traffic enforcement.'

Attention is drawn to the following:

- DfT Traffic Advisory Leaflet 1/95 "Speed Limit Signs – A Guide to Good Practice", March 1995; and
- Chapter 8 – Traffic Signs Manual
- DfT Circular 1/2007 - Use of Speed and Red Light Cameras for Traffic Enforcement: Guidance on Deployment, Visibility and Signing
- TSRGD (Traffic Signs Regulations & General Directions) 2002
- Network Management Manual (2007) – Chapter 4 – Traffic Management

See MEMLIB item EUMML/0100/013.

Note that this specification includes quantities as it is intended that the whole system is fully pre-planned with the CPO prior to tender, and the Bills of Quantities will be compiled to provide overall prices for the system in accordance with this itemisation in the above MEMLIB item.

Please advise NS if this proves difficult to realise, or is considered imprudent to specify/bill in this way.

**Annex B - MEMLib item**

EUMML/0100/013 Version 2

**TEMPORARY AUTOMATIC SPEED CAMERA SYSTEM FOR THE ENFORCEMENT OF  
MANDATORY SPEED LIMITS AT ROADWORKS (TASCAR)**

Comments: Alternative measurement item to cover additional requirements fro TASCAR.  
Series: 100 Preliminaries  
SpecLib ref: EUSL/0100/043  
Delegation: No  
Last review: April 2003  
Applicability: MCHW 4 : Section 1 (February 2003) and any subsequent amendments, until  
archived

Note for usage: Use of this clause requires a Departure

PARAGRAPH NO(S) (WHEN APPROPRIATE) AND TITLE:

**Series 100 – Preliminaries**

**Maintenance Of Temporary Automatic Speed Camera System For The Enforcement Of  
Mandatory Speed Limits At Roadworks**

TEXT OF ADDITION OR AMENDMENT:

Page 15 Delete existing sub-paragraph 54(g) in its entirety and insert instead the following:

(g) Provision of films or WORM disks.