



BSI Standards Publication

Road vehicles — Measurement of driver visual behaviour with respect to transport information and control systems

Part 2: Equipment and procedures

National foreword

This Published Document is the UK implementation of ISO/TS 15007-2:2014.

The UK participation in its preparation was entrusted to Technical Committee AUE/12, Safety related to occupants.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

© The British Standards Institution 2014. Published by BSI Standards Limited 2014

ISBN 978 0 580 73099 3

ICS 13.180; 43.040.15

Compliance with a British Standard cannot confer immunity from legal obligations.

This Published Document was published under the authority of the Standards Policy and Strategy Committee on 31 August 2014.

Amendments issued since publication

Date	Text affected
------	---------------

TECHNICAL
SPECIFICATION

ISO/TS
15007-2

Second edition
2014-09-01

**Road vehicles — Measurement of
driver visual behaviour with respect
to transport information and control
systems —**

**Part 2:
Equipment and procedures**

*Véhicules routiers — Mesure du comportement visuel du
conducteur en relation avec les systèmes de contrôle et d'information
sur le transport —*

Partie 2: Équipement et procédures



Reference number
ISO/TS 15007-2:2014(E)

© ISO 2014



COPYRIGHT PROTECTED DOCUMENT

© ISO 2014

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Evaluation and trial planning	1
4.1 Subject selection.....	1
4.2 Trial procedures.....	1
5 Recording equipment	4
5.1 General.....	4
5.2 Eye-Tracking equipment.....	4
5.3 Additional recording equipment.....	5
5.4 Installation.....	6
6 Data reduction	6
6.1 General.....	6
6.2 Sample interval.....	6
6.3 Summary data.....	7
7 Data analysis and presentation	8
7.1 General.....	8
7.2 Interpretation of findings from analyses of glance metrics.....	9
7.3 Interpretation of multiple glance metrics.....	10
Annex A (informative) Supporting information for performing and analysing experiments to determine driver visual behaviour	11
Bibliography	14

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2. www.iso.org/directives

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received. www.iso.org/patents

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT), see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 22 *Road vehicles*, Subcommittee SC 13, *Ergonomics applicable to road vehicles*.

This second edition of ISO/TS 15007-2 cancels and replaces the first edition (ISO/TS 15007-2:2001), which has been technically revised.

ISO/TS 15007 consists of the following parts under the general title *Road vehicles — Measurement of driver visual behaviour with respect to transport information and control systems*:

- *Part 1: Definitions and parameters*
- *Part 2: Equipment and procedures [Technical Specification]*

Introduction

This Technical Specification supports ISO 15007-1, which defines key terms and parameters for the assessment of the visual impact on driver visual behaviour of TICS (Traffic Information Control Systems), and other vehicle tasks or on-board systems.

ISO/TS 15007-2 supports ISO 15007-1 by giving guidance on equipment and procedures that can be used in a practical TICS evaluation, with recommendations on how to interpret selected metrics (standards of measurement) of visual behaviour.

Currently in preview, click buy full version

Currently in preview, click buy full version

Road vehicles — Measurement of driver visual behaviour with respect to transport information and control systems —

Part 2: Equipment and procedures

1 Scope

This Technical Specification gives guidelines on equipment and procedures for analysing driver visual behaviour, intended to enable assessors of transport information and control systems (TICS) to

- plan evaluation trials;
- specify (and install) data capture equipment, and;
- validate, analyse, interpret and report visual-behaviour metrics (standards of measurement).

It is applicable to both road trials and simulated driving environments.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 15007-1, *Road vehicles — Measurement of driver visual behaviour with respect to transport information and control systems — Part 1: Definitions and parameters*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 15007-1 apply.

4 Evaluation and trial planning

4.1 Subject selection

Evaluation trials of TICS applications should use a representative sample from the target population for the specific TICS. This driver sample should be categorized by age, gender, visual ability (including colour or vision deficiencies, as well as whether and what type of corrective lenses are required to drive) and driving experience.

4.2 Trial procedures

4.2.1 General

Assessment of driver visual demand can be carried out in relation to many forms of TICS applications and road environments. Therefore, consideration should be given to the following factors influencing driver visual behaviour.