
**Road vehicles — Ergonomic aspects
of transport information and control
systems — Calibration tasks for
methods which assess driver demand
due to the use of in-vehicle systems**

*Véhicules routiers — Aspects ergonomiques des systèmes
d'information et de contrôle du transport — Tâches de calibration
pour méthodes qui évaluent la distraction du conducteur due à
l'utilisation des systèmes embarqués*

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Published in Switzerland

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Foreword

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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 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 39, *Ergonomics*.

This second edition cancels and replaces the first edition (ISO/TS 14198:2012), which has been technically revised. The main changes compared to the previous edition are as follows:

- in addition to the Lane Change Test (LCT), the Detection Response Task (DRT) is added as a primary task;
- in addition to the Critical Tracking Task (CTT) and Surrogate Reference Task (SURT), the n-back task is added as calibration task.

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Introduction

The number of standardized methods to assess driver attentional demand due to the use of in-vehicle information and communication devices is continuing to increase. In applying these methodologies, it is important to understand and document variability in participants' performance of standard calibration tasks and procedures across laboratories and/or time.

A suitable calibration task should have the following attributes:

- It should be robust against the variations in cultural background of participants.
- Properly applied, the task should give repeatable quantitative results. It should be sensitive to inappropriate variations in participants, equipment, location, experimenter and instruction.
- It should use durable and readily available equipment for conducting the task.
- It should apply to the driver population and be usable in a driving-like context.

A standardized calibration task can be used to produce a range of statistically stable, repeatable and comparable secondary task demands for a participant in an experimental setting. This setting can be used to assess the effect on driving performance of the attentional demand due to driver interaction with an information, entertainment, and control or communication system while a vehicle is in motion.

Different calibration tasks are specified in this document to cover calibration manual, visual, and cognitive aspects of various secondary task characteristics.

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