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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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Foreword

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An ISO/PAS or ISO/TS is reviewed after three years in order to decide whether it will be confirmed for a further three years, revised to become an International Standard, or withdrawn. If the ISO/PAS or ISO/TS is confirmed, it is reviewed again after a further three years, at which time it must either be transformed into an International Standard or be withdrawn.

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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 Technical Specification to cover calibration manual and visual aspects of various secondary task characteristics.