

PROPOSED TERMS OF REFERENCE

GRB INFORMAL GROUP ON QUIET ROAD TRANSPORT VEHICLES

PROBLEM

The advent of road transport vehicles that rely, in whole or in part, on alternative drive trains (e.g. electromotive propulsion) are serving to significantly reduce both air and noise pollution and their adverse impacts on citizens throughout the world. However, the very positive environmental benefits achieved to date by these "hybrid or pure electric" road vehicles have resulted in the unintended consequence of removing a source of audible signal that is used by various groups of pedestrians, (e.g. in particular blind and low vision persons), to signal the approach, presence and/or departure of road vehicles.

WP.29

The UN/ECE/WP.29 has determined¹ that road transport vehicles propelled in whole or in part by electric means, present a danger to pedestrians. Further, the WP.29 has directed the GRB to assess and determine what, if any, steps might be taken by WP.29 to mitigate potential pedestrian hazards through the use of acoustic means, recognizing that other means of communication may also be appropriate.

GRB OBJECTIVE

The GRB has established an informal working group to carry out the following activities that are considered essential to determine the viability of "quiet vehicle" audible acoustic signaling techniques and the potential need for their global harmonization.

PROGRAM PLAN

Phase I - Identify, review and assess the status of various research being carried out by various governments, universities and non-governmental organizations regarding audible signaling technologies for quiet vehicles and their respective mandated time frames. Complete by September, 2010 GRB meeting.

Phase II – Determine, based on survey and experimental investigation with blind and low vision people, those human factors believed necessary to decision making in vehicular traffic situations. Studies shall include both learned and intuitive information processing. Complete by September, 2010 GRB meeting.

¹ Verbal and written presentations by the U.S. national Federation for the Blind to WP-29; Actions taken by governments of Japan and the United States of America

Phase III– Transform human factor needs into technical performance parameters for road vehicles, including the types of vehicle movement and position information required by the blind, low vision and other persons to facilitate their safe passage, navigation and orientation in the presence of vehicular traffic. Status report to GRB by February 2011.

Phase IV – Determine potential audible sound characteristics and mechanisms that convey desired vehicle performance information to the human receiver. Status report to GRB at February, 2011 meeting.

Phase V – Determine technical and economic feasibility of those audible warning techniques deemed appropriate for "quiet vehicle" operations. Status report to GRB at February, 2011 meeting.

Phase VI – Determine potential adverse impact on the public at large or existing vehicle noise emission standards and regulations. Status report to GRB at September, 2011 meeting.

Phase VII – Present conclusions and recommendations to the GRB. Complete by February, 2012.

RULES OF PROCEDURE

1. The informal group is open to all participants of GRB.
2. A Chairman and a Secretary shall govern the informal group.
3. The official language of the informal group shall be English.
4. All documents and/or proposals shall be submitted to the Secretary of the group in a suitable electronic format at least two weeks in advance of the meeting. The group may refuse to discuss any item or proposal which has not been circulated 10 working days in advance.
5. A draft agenda and related documents shall be circulated to all members of the informal group ten days in advance of all scheduled meetings.
6. The conclusions of the informal group shall be based on a majority vote of governmental members.
7. If the informal group cannot reach a common agreement, the proposals shall be presented to GRB, in order to take a decision.

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