Draft Report of

2nd Task Force Meeting of the Informal Working Group

on

Quiet Road Transport Vehicles for a Global Technical Regulation

8th to 10th September 2013 JAMA Offices Brussels, Belgium

1. Opening remarks by Dr. Nicholas Kakizis, COM, Secretary of the IG

Dr. Kakizis thanked JAMA Europe for putting the meeting location at the disposal of the group.

He informed the participants that NHTSA could not join the meeting which is the reason for the status of a Task force meeting.

2. Introduction of participants and organizations

National bodies:

EU COM, Japan (NTSEL & JASIC), France (UTAC), Germany (BMVBS), Spain (LCOE)

Associations/Researchers/Others:

NFB (US National Federation of the Blind), OICA (Porsche, Ford, Volvo Trucks, JAMA, Scania, Daimler, ACEA), ISO, CLEPA (Brigade)

3. Adoption of the agenda

The agenda was adopted.

4. Adoption of the minutes of 1^{st} TF meeting

The minutes of the 1st TF meeting were adopted without any changes

5. Presentation of changes to DRAFT GTR after $1^{\underline{st}}$ TF meeting (ISO)

ISO presented changes to the latest version of the draft GTR. The changes mainly focus on the test procedure in part B of the text. During the following discussion it was clarified that the text proposed under item 9.5.9. was not a newly invented wording but taken from other Hybrid & EV legislation or standards.

The concern of batteries running low on charge during an individual test session and

before the completion of a series of tests was discussed as well. It was concluded that on request of the manufacturer, batteries may be recharged between test runs without compromising their validity.

OICA emphasized that the paragraph for commencing motion sound needed to be updated after the next ISO meeting

6. ACEA Study on detection distances

On order of ACEA, the Technical University of Dresden (TUD) has carried out a study intended to assess the detection distance of various types of propulsion. The preliminary <u>results of that study</u> were presented by OICA. More details, such as frequency spectrum specification, will be shown at the next official meeting of the IWG in Tokyo.

One part of study consisted on a jury testing of various artificial sounds emitted by HEV/EV as well as ICE-V and recorded during outdoor testing of approaching vehicles. Those recordings were mixed with a standardised 55 dB(A) 'Pederson' background noise and presented to probands at the TUD Acoustic test lab. All of the presented sounds were detected earlier than 1.8sec before the vehicle would have passed in front of the microphone line. With that, the basic requirement contained in the US NPRM for sufficient detection distance is fulfilled (page 17 of presentation). It was noted that most of the sounds did not meet the NHTSA proposed specification for sound composition. It was concluded that 2 1/3rd octave bands are sufficient to make a vehicle detectable and that detection distance is not a function of SPL. CLEPA (Brigade) emphasized that beside a pure ability for detection, also locatibility is important and that from internal experience, four 3rd octave bands would probably be sufficient to add that attribute to the AVAS signal.

7. Collection of basic requirements derived from standpoints of Contracting Parties.

Based on document 'Basis common requirements for AVAS' that was compiled during the 1st TF meeting, JASIC has created an overview chart that shows the same content in an easy-to-read manner. In addition to the various national/regional standpoints, this table shall include possible compromises between the opinions as well as a proposed text that can be used to be put in the GTR. In became obvious that for some subjects a compromise is difficult to formulate as the individual standpoints are fixed and controversy at the same time, e.g. mandatory vs. prohibited.

The need for setting minimum and maximum SPL requirements was discussed. France presented a <u>document</u> that clarified that the minimum sound requirements apply to the whole vehicle at it is up to the manufacturer to ensure that they are fulfilled, with or without an AVAS fully or partly activated.

8. <u>Modification to the test of the draft GTR</u>

The remaining time of the meeting was used to make <u>modifications to the draft text</u> of the GTR in preparation of the next official meeting in December.

9. <u>Next meeting</u>

December 10th – 12th Tokyo, Japan, JASIC offices