DAGA 2015 „Speech & Audio in Vehicles“ - Abstract

Detection of “Silent Calls” in Emergency Call Scenarios

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According to the EU commission vehicles need to be equipped with “eCall” (emergency call) systems in the future. In case of accident, a minimum set of data (MSD) including GPS position is transmitted and a voice call via “112” is established to the Public Safety Answering Point (PSAP). Hands-free functionality is used in the vehicle. The audio connection is the only communication channel between PSAP and driver or passengers in the vehicle. Thus, transmission quality is of highest importance.

These systems require new tests and limits compared to conventional hands-free communication. This contribution presents the results of a listening test for the “silent call” problematic. A “silent call” in this context designates an emergency call (real emergency case or erroneously generated call, e.g. from a mobile phone) where no one is actively communicating with the PSAP side. Thus, the transmitted noise scenario is the only information for the PSAP operator to decide about the relevance of this call. The following points will be discussed: What are the minimum requirements to transmit ambient noise from a vehicle involved in an accident? How transparent the uplink needs to be? What are the requirements for implemented noise reduction algorithms in eCall implementations?

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