



October 20, 2014

Docket Management Facility
U.S. Department of Transportation
1200 New Jersey Ave., SE
West Building Ground Floor, Room W12-140
Washington DC 20590

Re: Docket No. NHTSA-2014-0022

To whom it may concern:

IEEE-USA was pleased to see the release of the NHTSA Advance Notice of Proposed Rulemaking (ANPRM) in the Federal Register as an indication of progress being made toward the implementation of vehicle-to-vehicle (V2V) communications to improve the safety and efficiency of road transportation. The contemplated system of V2V communications is a classic example of a system with network externalities, in which realization of potential benefits depends on having a large fraction of the population equipped, but the early adopters do not benefit until many others have followed. That provides a strong justification for a regulatory mandate to overcome the impediments to deployment based on market forces alone. There is an urgent need to accelerate deployment of V2V technology so that its benefits to the road transportation system can be realized and so that the 5.9 GHz spectrum that has been allocated for its use can be well-utilized and protected from intrusions that will impair its effectiveness in supporting V2V safety applications.

Question 16 in the ANPRM makes reference to the standardization work of IEEE and other standards development organizations and indicates that these organizations, as well as NHTSA, have additional research underway to address V2V interoperability problems. The description in the ANPRM and in the referenced technical report on V2V communications readiness is broad enough to accommodate the additional research that will be needed to ensure interoperability for large-scale deployment of the V2V safety system.

Questions 55 and 56 in the APNRM refer to evolving safety functions and the evolving technology of self-driving cars, respectively. These questions are tightly connected as research anticipates a step-by-step evolution from safety functions towards self-driving cars. In this evolution V2V is seen as one essential input assisting in developing and procuring the safety of innovative functions. Current research indicates that trusted map data and situation awareness messages are highly valuable for such functions and that V2V can offer reliable and low-delay-time exchange of such information. In order to account for likely future demands of map, sensor data and trajectory transmission, a possible future extension of the allocated bandwidth should be anticipated. In the long term, V2V is expected to support the flow of traffic with self-driving cars and thus is a complementary technology that enhances self-driving vehicles operation.

IEEE-USA appreciates this opportunity to comment on the subject ANPRM. If we can be of further assistance, please contact Vin O'Neill in our Washington Office at (202) 530-8327 or v.oneill@ieee.org.

Sincerely,

Gary L. Blank, Ph.D.
IEEE-USA President

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