



August 28, 2019

Submitted Online

U.S. Department of Transportation
Docket Operations
1200 New Jersey Avenue SE
Washington, DC 20590

Re: Comments Concerning Removing Regulatory Barriers for Vehicles with Automated Driving Systems, Docket Number: NHTSA-2019-0036-0026

The Consortium for Citizens with Disabilities (CCD) Transportation Task Force is pleased to submit comments in response to the ANPRM from the National Highway Traffic Safety Administration (NHTSA) on Removing Regulatory Barriers for Vehicles with Automated Driving Systems. CCD is the largest coalition of national organizations working together to advocate for Federal public policy that ensures the self-determination, independence, empowerment, integration and inclusion of children and adults with disabilities in all aspects of society.

The CCD Transportation Task Force supports NHTSA's mission to "save lives, prevent injuries and reduce economic costs due to road traffic crashes...". NHTSA's core values of Integrity, Service and Leadership should be applied when reviewing and revising automated driving system-dedicated vehicle (ADS-DV) crash avoidance safety standards. Safety *and* accessibility must be considered and ensured for all drivers, passengers, and road users, including people with disabilities.

In response to your questions, we urge you to consider the following:

Question 1. What are the possible advantages and disadvantages of each approach?

Persons with disabilities must be kept in mind when considering the advantages and disadvantages of any form of compliance verification. The development of crash avoidance

technology includes a plethora of variables. Disability-related factors should be considered. For example, any in-vehicle controls must be reachable by wheelchair users and usable by people with sensory and cognitive disabilities. People with disabilities should not be an afterthought when developing standards for safety in ADS-DVs; this is too often the reality. Numerous features should and can be implemented from the beginning to accommodate persons with disabilities.

Question 6. What other potential revisions or additions to terms, in addition to 'driver', are necessary for crash avoidance standards that NHTSA should consider defining or modifying to better communicate how the agency intends to conduct compliance verification of ADS vehicle(s).

Definitions for accessibility-related features for autonomous vehicles must be developed. Accessibility-related safety features should be built into the framework of new vehicles. ADS-DVs should include an accessible human machine interface (HMI) for persons with sensory and cognitive disabilities. Without definitions and standards for accessibility-related features, there will be inconsistencies in how features are implemented. Such inconsistencies will bring about safety hazards and could cause data collection after a collision to be confusing and less educational.

Question 10b. Are there any changes that NHTSA could make to the FMVSS test procedures that could incorporate basic ADS capabilities to demonstrate performance, such as using an ADS-DV's capability to recognize and obey a stop sign to test service brake performance?

Test procedures that would incorporate basic ADS capabilities should account for passengers with sensory, cognitive and physical disabilities in the vehicle. Testing should also require that vehicles recognize and stop for pedestrians with service animals and canes, wheelchair users, bicyclists, and pedestrians with darker and lighter skin shades.

Question 12. What design concepts are vehicle manufacturers considering relating to how an ADS-DV passenger/operator will interface with, or command (e.g., via verbal or manual input), the ADS to accomplish any driving task within its operational design domain? Please explain each design concept and exactly how each would be commanded to execute on-road trips.

The development of ADS-DVs opens the door for a whole new community of persons to utilize autonomous vehicles. However, such communities cannot take advantage of such technologies unless accessibility is built into the system. For example, higher-level ADS-DVs may lack steering

wheels. In their place, some kind of control system or touch screen will be present. Designers will have to build in accessible software and utilize multiple forms of communication to make the HMI usable for blind or low vision passengers, or for those who are Deaf or hard of hearing. CCD stresses that HMI controls must be designed with accessibility as one of the many important facets of the automobile. Fixing the issue later in the process, or retrofitting the problem, is not the solution.

Thank you again for your commitment to access and mobility for all. We look forward to commenting on barriers to crashworthiness, telltales, indicators and warnings. Please do not hesitate to contact CCD Transportation Task Force Co-Chair Claire Stanley at cstanley@acb.org with any questions.

Sincerely,

Consortium for Citizens with Disabilities Transportation Taskforce Co-Chairs

Lee Page
Paralyzed Veterans of America

Claire Stanley
American Council of the Blind

Carol Tyson
Disability Rights Education & Defense Fund