Public Affairs

Washington Office
607 14th Street, NW,
Suite 200
Washington, D.C.20005
202/942-2050
FAX: 202/783-4788

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The Honorable Raymond P. Martinez
Administrator
Federal Motor Carrier Safety Administration
U.S. Department of
Transportation 1200 New
Jersey Avenue, SE
Washington, DC 20590

Docket No. FMCSA-2018-0037: Safe Integration of Automated Driving Systems-Equipped Commercial Motor Vehicles

AAA commends the Federal Motor Carrier Safety Administration for its engagement in the ongoing development and testing of Automated Driving System-equipped Commercial Motor Vehicles (ADS-equipped CMVs).

We recognize the Department of Transportation's primary focus to date has been on automated passenger vehicles, and as an association serving more than 59 million members in the U.S. and Canada, we are actively engaged in the federal and state policy discussions. However, with the release of A.V. 3.0 the agency highlighted the safe integration of automation across passenger vehicles, commercial vehicles, on-road transit, and the roadways on which they operate. Since the nation's current infrastructure system must support all modes of automated driving systems, it is important that your agency oversee the advancement of ADS-equipped CMVs with the same oversight and emphasis on safety in support of the agency's mission. Moreover, with recent advances in collision avoidance technologies, such as collision warning systems and automatic emergency braking, there currently exists advanced technologies to improve truck safety. For these reasons, AAA is committed to working with your agency to ensure the safety benefits of advanced technologies are harnessed for all road users.

While the direct causes are difficult to pinpoint, we have seen a significant increase in recent years in fatalities and injuries related to crashes involving large trucks. According to the FMCSA 2017 Large Truck and Bus Crash Facts report, between 2016 and 2017, the number of large trucks involved in injury crashes increased by 5%, while the number of large trucks involved in fatal crashes increased by 10%.[1] Preliminary statistics from NHTSA indicate that fatalities in large truck crashes increased

[1] Large Truck and Bus Crash Facts 2017. Federal Motor Carrier Safety Administration, May 2019.

by an estimated 3% in 2018 relative to 2017.[2] After continued decreases between 2002 and 2009, there have been steady increases in crashes and fatalities ever since. Implementation of advanced technologies could provide significant progress in the prevention of crashes and fatalities, if they are tested and perfected before deployment.

AAA has submitted several comments in response to NHTSA notices regarding the safe testing and deployment of ADS technology in passenger vehicles. A list of the key concerns and recommendations for the FMCSA's review as it moves forward with ADS-equipped CMV research and testing is outlined below.

Issues for Consideration

- **Safety:** First and foremost, AAA believes that safety should never be compromised to hasten any AV deployment. All who share the roads with ADS-equipped CMVs have a right to expect that commercial vehicles will be operated safely. ADS-equipped CMVs certified for operation on public roadways should meet all applicable Federal Motor Carrier Safety Regulations.
- **Operating Characteristics:** Given the different regulations and standards that already apply to the operation of heavy-duty and commercial vehicles, separate policy guidance clarifying the applicability of NHTSA's recommendations for these vehicle classes would be appropriate. Some transportation analysts have suggested that highly automated CMVs may be more widely deployed prior to passenger vehicles, and therefore it is the agency's responsibility to provide policy guidelines to address any unique operating characteristics and challenges.
- **System Redundancy:** Until the safety of fully automated technology can be assured, there should be some mechanism for human intervention to ensure the safety of both the ADS-equipped CMV operators and other road users should the technology malfunction or need correction during testing.
- **Vehicle Platooning:** AAA supports ongoing research and testing to safely advance driver assistive vehicle platooning systems. Such systems must prioritize safety above other potential gains, such as freight productivity or fuel economy. We believe vehicle platoon pilot programs should be:
    - conducted in collaboration with law enforcement and state transportation agencies;
    - signed appropriately to alert road users that a testing program is underway; and
    - operated by professionally trained and qualified drivers, utilizing advanced safety technologies, when testing commercial vehicles.
- **Vehicle Inspections:** Safeguards must be in place to ensure ADS-equipped CMVs are routinely inspected by trained professionals and a process to remove non-compliant vehicles must be enforced.
- **Driver/Operator Training:** A comprehensive driver and operator training program must be required and operators must be routinely evaluated. Training protocol and regulations for ADS CMV drivers and remote operators should also maintain restrictions on distraction, including but not limited to prohibiting texting and handheld electronic devices.
- **Vehicle Classification:** The agency needs to determine if ADS-equipped CMVs should be prohibited from carrying HazMat materials.
- **Consumer Education:** FMCSA should initiate a comprehensive education campaign for passenger vehicle drivers and other road users sharing the road with ADS-equipped CMV.

[2]National Center for Statistics and Analysis. (2019, June). Early estimate of motor vehicle traffic fatalities for 2018 (Crash•Stats Brief Statistical Summary. Report No. DOT HS 812 749). Washington, DC: National Highway Traffic Safety Administration.

The agency should work with industry experts, consumer groups and safety advocates, including AAA, in developing updated road safety practices.

- **Crash Avoidance Technologies:** AAA believes advanced driver assistance systems have the potential to reduce the number of truck/car crash fatalities and serious injuries. FMCSA should continue to conduct research on the safety efficacy of such systems and pursue regulations, where appropriate. The NTSB Most Wanted List of 2019-2020 highlights the potential significant safety benefits from increased implementation of such technologies, including collision warning systems, automatic emergency braking, lane departure warning, and blind spot detection[3].
    - The AAA Foundation for Traffic Safety has also done substantial research on the benefits of these technologies and their potential to prevent tens of thousands of crashes and hundreds of deaths annually[4].
- **Performance Standards:** AAA believes it is critical for NHTSA and FMCSA to be able to confirm that an ADS-equipped CMV (or any ADS-equipped vehicle) can perform according to expectations, whether it is recognizing and reacting appropriately to the limits of its ODD, identifying crossings or hazards, or responding to official or emergency vehicles. This confirmation should be part of the self-certification or third-party certification process undertaken by the manufacturer. Data substantiating such a confirmation should be made available to FMCSA or any other relevant government agency as part of an investigation or permitting process, as needed.

Conclusion

AAA supports FMCSA's intention to continue strict safety standards and oversight as the development and deployment of ADS accelerates. We hope the above recommendations can enhance the shared goal of ensuring the safe testing and deployment of these new technologies to the public with the end goal of reducing injuries and deaths on our roadways.

Sincerely,

Jill Ingrassia
Managing Director
AAA Government Relations and Traffic Safety Advocacy

[3] "Increased Implementation of Collision Avoidance Systems in All New Highway Vehicles." 2019-2020 NTSB Most Wanted List of Transportation Safety Improvements.
[4] https://aaafoundation.org/automatic-emergency-braking-systems-leveraging-large-truck-technology-engineering-realize-safety-gains/