March 20, 2023

David Sutula
Division Chief, Vehicle and Roadside Operations
Office of Carrier, Driver, and Vehicle Safety Standards
Federal Motor Carrier Safety Administration
1200 New Jersey Avenue SE
Washington, DC 20590-0001

RE: Safe Integration of Automated Driving Systems (ADS)-Equipped Commercial Motor Vehicles (CMVs)

Dear Mr. Sutula,

As the nation's leading advocate for the technological modernization of our transportation system by focusing on advancing research and deployment of intelligent transportation technology, the Intelligent Transportation Society of America (ITS America) is grateful for the opportunity to comment on the Federal Motor Carrier Safety Administration's (FMCSA) Supplemental Advance Notice of Proposed Rulemaking (SANPRM) on the Safe Integration of Automated Driving Systems (ADS)-Equipped Commercial Motor Vehicles (CMVs).

ITS America was founded in 1991 as an advisory council to the United States Department of Transportation (USDOT) on technology innovation and emerging transportation technologies. ITS America is the only organization in the country that represents all sectors – public, private, academic, and nonprofit – to advance transportation technology. Our membership includes state and city departments of transportation, transit agencies, metropolitan planning organizations, automotive manufacturers, technology companies, engineering firms, automotive suppliers, insurance companies, and research and academic universities. Our vision is of a better future transformed by transportation technology and innovation. Safer. Greener. Smarter. For all.

Our work accelerates the deployment of technology that saves lives, promotes sustainability, and advances more equitable transportation for all. Our members' work focuses on connected and automated vehicle technologies, smart and digital infrastructure, sustainable technologies like electric vehicles, and other mobility technologies that support public transportation and freight. ITS America's work breathes new life into our transportation system by expanding investments in technologies that support smart communities, encourage new models and modes of transportation, including micro-transit, ride-sourcing, carshare, bikeshare, micro-mobility, and uncrewed systems - innovations that make our transportation system safer, greener, and smarter for all. Investments in these technologies must also address transportation equity so everyone gains access to mobility and opportunity and our workforce is a part of these conversations.

First and foremost, ITS America's priority has always been, and continues to be, safety. Therefore, we welcome the opportunity to provide our high-level automated vehicle (AV) policy in response to this

SANPRM, as we believe this is an important opportunity for FMCSA to shape the landscape for the deployment of AVs, particularly as it relates to CMVs.

***ITS America AV Policy***

Automated vehicles have enormous potential to improve roadway safety and performance and contribute to more livable, vibrant, and equitable communities by providing more affordable mobility options. AVs have the potential to improve transit access by extending its reach; improve freight movement; and free up parking for other needs, including transit corridors, bike lanes, and walkable places such as sidewalks and plazas. AVs can provide mobility options for people with disabilities and seniors, as well as access for underserved communities. ITS America policies support legal and regulatory frameworks that facilitate the safe testing, deployment, and integration of automated vehicles into the surface transportation system and address automated vehicles, self-driving trucks, automated transit, and workforce impacts and mitigation strategies.

Automated vehicle technology is accelerating rapidly, and ITS America strongly believes a federal framework is needed to ensure safe, scaled deployment. The absence of such a framework has led many cities and states to develop their own automated vehicle requirements, resulting in a patchwork approach of regulations.

ITS America encourages the Administration to work with Congress on a bipartisan automated vehicle bill that maintains the federal government's traditional role over design, construction, and performance of highly automated vehicles; preserves state and local authority over their roads, including traffic laws and rules of the road; and makes clear that "performance" is consistent with the National Traffic and Motor Vehicle Safety Act related to vehicle or equipment performance and is not intended to be broadened beyond the National Highway Traffic Safety Administration (NHTSA) traditional interpretation.

ITS America supports a safe and reasonable increase in the number and duration of Federal Motor Vehicle Safety Standard exemptions because developers, working with NHTSA, cities, counties, and states, need experience operating automated vehicles in sufficient numbers to generate the broad data across a multitude of scenarios and environmental operating conditions necessary to ensure safety. ITS America supports the flexibility of transit agencies to use federal funding to deploy automated vehicles to support public transportation services. We also support transit agencies in creating workforce development plans that outline how automated vehicles will affect transit workers and how to pursue mitigation strategies.

ITS America endorses the inclusion of CMVs in a federal framework for automated vehicle deployment. We urge federal regulators to work with states, cities, public transit, manufacturers, and other entities on regulations that ensure the safe deployment of these automated vehicles.

***ITS America Member Response to SANPRM***

ITS America's members span many differing viewpoints and the below comments reflect some of the varying perspectives our members would like to see FMCSA consider as this process moves forward.

A. Oversight on motor carriers operating Level 4 and 5 CMVs

- FMCSA should require motor carriers operating Level 4 or 5 ADS equipped CMVs to notify FMCSA before operating those vehicles in interstate commerce without a human driver behind the wheel, and that FMCSA should establish an online portal for carriers to enter basic information about the VIN of each vehicle, where it is based, and where it is expected to be operating.
- FMCSA should consider single-point reporting for AV (vehicle specific) information via an expansion of NHTSA's AV Test protocols, but that operational reporting remains with FMCSA to ensure timeliness via existing systems. Related to NHTSA's authority, our members caution that FMCSA must avoid pre-empting the authority of states or NHTSA.
- Carriers should submit information regarding the training they provide to drivers to ensure that the drivers understand system capabilities and limitations, and that carriers should report on how they monitor driver use of the systems (what data they collect to identify potential misuse of the systems) and how they identify and act in response to potential malfunctions of the ADS.
- With respect to data, FMCSA should collect and maintain regarding Level 4 or 5 ADS-equipped CMVs engaged in interstate transportation, FMCSA should collect: the mileage operated by each ADS-equipped CMV under automated and manual control each year; records of any crashes or stops by law enforcement while under automated control; and records of any time the system executed a minimal risk maneuver (MRM), including circumstance that triggered the MRM, where it occurred, whether the vehicle stopped in an active traffic lane or on the shoulder or in a parking place, etc., and how long it was stopped before it could be moved again. Such data would be useful for FMCSA to understand the level of maturity of the technology, whether there are safety problems with specific ADS features or systems, and whether there is a need for new regulations to improve the safety of ADS operations. Additionally, this data would serve the broader purpose of determining what impacts the ADS technology is having on overall traffic safety and operations.
- Who would operate and maintain a national database of Level 4 or 5 ADS-equipped CMVs engaged in interstate transportation? Is it state-by-state? Is it motor carriers? There is a need for a 'digital handshake' when loads are stopped or picked up and other freight data is noted. If these information exchanges are needed to help scale automation and advance the supply chain, then FMCSA should ensure a national data-collection framework to avoid the state-by-state approach.

B. Oversight of Remote Assistants

- Numerous ITS America members commented that remote assistants will need to be skilled, experienced professionals with workforce training to help with teleoperations for vehicles in real-world environments. Some suggest that remote assistant should be required to have a CDL applicable to the class of vehicles they are assisting (so that they understand the rules that they need to follow and the physical limitations of the vehicles they will be assisting) and should be subject to some form of hours of service limitations. Research is needed to determine the suitable hours of service requirements because of significant differences from in-vehicle driving (potentially leading to tighter limits on hours of service for remote support staff than on in-vehicle drivers). Alternatively, others note that while we will eventually need remote assistant regulations, these jobs are still being developed and operational requirements are still being developed. Therefore, we must still give companies the ability to be innovative and nimbly develop workforce procedures, and while at a future date there may need to be rulemakings with regard to remote assistants, at this time such regulation is premature.
- With respect to limitations for remote assistants, research is urgently needed to determine the number of hours that the remote assistant may work between breaks and during a work day, so that their performance is not impaired by fatigue. Research is also needed to determine the minimum requirements that should be specified for the workstations that they use (image display field of view, resolution, refresh rate and latency), to ensure that they have adequate information displayed to them to enable them to make appropriate decisions. The number of vehicles that remote assistants are responsible for cannot be specified appropriately because this will vary depending on the level of sophistication of the ADS on the CMVs they are assisting and the complexity of the conditions in which those CMVs are operating. If there exist any regulatory requirements regarding the number of fleets a dispatcher can manage, then it's unclear at this time whether we need to change such requirements. Later, however, FMCSA and industry may need to address whether the number of dispatchers and fleet vehicles should be modified to account for ADS remote operations and assistance.

C. Vehicle Inspection and Maintenance

- Different ADS companies use different combinations of sensors, thus it is unlikely to be practical to specify a common pre-trip inspection protocol. It would be more efficient to ensure the ADS technology is in proper working condition by imposing a NHTSA requirement for inclusion of a self-diagnostic capability in each ADS to verify proper working condition of the technology before it can be engaged. Information communicated by the motor carrier and CMV to state inspectors would be most efficiently handled by relying on the internal self-diagnostics of the ADS and then adding a requirement for the ADS to transmit the self-diagnostic status (including location and time stamp) to the state CMV inspection authorities at the start of each trip. Alternatively, there should be a safety plan for replacing CDL drivers' typical pre-trip inspection of a vehicle, as same or similar standards may be needed at each start and stop.

In addition to the above, we would note that our members raised numerous additional questions in response to the questions of the SANPRM. Many of those questions are appended to this letter.

Again, ITS America is grateful for the opportunity to provide feedback from our organization and our members on this SANPRM, and we look forward to working with FMCSA on additional efforts related to ADS rulemakings. If you have any questions about any of the responses above, please contact Matt Leasure, Vice President of Public Policy and Legislative Affairs, at mleasure@itsa.org.

Sincerely,

Laura D. Chace
President & CEO

## ITS America Member Questions Regarding FMCSA SANPRM on ADS-Equipped CMVs

**Questions in response to FMCSA SANPRM Section V(A):**

1. Should we be running surface transportation similar to how we run our aviation system, where there's full transparency of flights and data that supports safety outcomes?
2. If a vehicle gets pre-registered with USDOT, how would FMCSA approve them? At a state level states can permit oversize, overweight vehicles. The state would have to change their approval mechanisms to address AV technology. Would FMCSA be essentially pre-empting the state DOTs? Is the FMCSA pre-empting states in these regulations?
3. How should FMSCA regulations be consistent with regulations for passenger vehicles?
4. Is FMCSA looking at self-certification like FMVSS has for passenger vehicles?
5. How does FMCSA anticipate meeting the needs of innovative states that are encouraging AV deployment while also not requiring all 50 states to have a uniform approach?
6. Is FMCSA the right entity to be doing this? Should this be attached to USDOT FMCSA registration? Isn't part of this a core NHTSA role? How does USDOT anticipate addressing that grey area?
7. With trucking, level 4 operations allow the truck to move further as it removes the constraints of driving hour limitations. Do we apply hours of service regulations to the support/remote operations?
8. Would a truck with no driver entering a port need a TSA Transportation Worker Identification Card (TWIC)? It appears that requirement would need to be updated with L4-5 technologies.
9. Would there be a requirement for remote operations to take over during a safety event?
10. How would the regs apply to transit bus and other buses?
11. How would this move forward with a federal framework that allows consistency across states?

**Questions in response to FMCSA SANPRM Section V(B):**

1. NHTSA currently has rules for reporting incidents/crashes with AVs. I don't recall from my first read through, but how does FMCSA propose coordination with their data being collected through this rule? NHTSA's jurisdiction is over all motor vehicles, so while this ANPRM doesn't address it, NHTSA's oversight over crash data should address FMCSA's needs.
2. How are height and weight restrictions addressed by teleoperations? How would physical regulatory needs (e.g. the need to put out warning flags) be addressed in a remote operations environment?
3. J3016 defines and provides examples, but the line still may be fuzzy on definition of remote assistant/operator. Is just leaving breadcrumbs for the AI to accept or not remote operation? What if the AI accepts and things go wrong?