



February 1, 2021

James C. Owens
Deputy Administrator, National Highway Traffic Safety Administration
M-30, U.S. Department of Transportation, West Building
Ground Floor, Room W12-140
1200 New Jersey Ave. SE
Washington, DC 20590

Re: Docket No. NHTSA-2020-0106. The National Highway Traffic Safety Administration requests comment on Framework for Automated Driving System Safety.

The American Motorcyclist Association submits these comments to the above-referenced notice published in the Dec. 3, 2020, *Federal Register*. We appreciate the National Highway Traffic Administration's request for public comments on its "Framework for Automated Driving Safety Systems" (NHTSA-2020-0106). However, the agency appears to remain steadfast in its approach of removing regulatory hurdles that could stifle the innovation of ADS manufacturers at the expense of the safety of all road users. That approach is inconsistent with NHTSA mission "to save lives, prevent injuries and reduce economic costs due to road traffic crashes." Automated driving technology may prove to be a useful tool to help accomplish that mission. However, it is unreasonable to believe it will improve road safety without a formal public policy that guides it to achieving those goals.

Founded in 1924, the nonprofit AMA is the premier advocate of the motorcycling community, representing the interests of millions of on- and off-highway motorcyclists and all-terrain vehicle riders. Our mission is to promote the motorcycle lifestyle and protect the future of motorcycling.

Reducing the number of traffic crashes involving motorcycles and the number of motorcycle operators and passengers injured or killed each year is a top priority of the AMA. Through a comprehensive approach of promoting rider education and the use of personal protective equipment, increased motorist awareness and discouraging impaired motorcycle operation, the AMA seeks to enhance motorcycle safety in transportation and recreational activities.

While the AMA understood the initial voluntary approach taken by the U.S. Department of Transportation recommending manufacturers report on the safety of their evolving driver-assisted and automated-vehicle technologies, we believe more must be done to ensure that automated vehicles, advanced driver assistance systems and intelligent infrastructure systems properly detect and interact with motorcycles.

The AMA firmly believes that, if this issue is not addressed early in developing automated vehicles, the consequences will prove disastrous for motorcyclists sharing the roads with ADS that cannot adequately detect and react to motorcycles.

For the safety of our nation's more than 8.5 million motorcyclists, we must ensure these systems can safely and reliably interact with motorcycles on the road. The AMA urges the NHTSA to work with manufacturers, developers and other entities to create testing procedures that can safely verify these technologies' ability to interact with motorcyclists safely in all traffic situations.

A. Questions About a Safety Framework

Question 1. *Describe your conception of a Federal safety framework for ADS that encompasses the process and engineering measures described in this document and explain your rationale for its design.*

The AMA believes the concept of a Federal safety framework for ADS should ensure the development of any rules or standards include measures to ensure that ADS can safely interact with all road users, such as motorcyclists, bicyclists and pedestrians. This concept is just as important as creating ADS vehicle standards to protect occupants of ADS vehicles. The “Framework for Automated Driving Systems” provides an opportunity for the agency to improve the safety and reduce fatalities of vulnerable roadway users by ensuring that any federal regulations or recommendations require ADS standards that include provisions designating VRU as a high priority.

According to NHTSA 2018 fatality data, vulnerable road users represented 49 percent of all road fatalities. In this context, NHTSA defined VRU to include motorcyclists, pedestrians, bicyclists, older occupants (65+) and child occupants (younger than 15). While motorcyclist fatalities decreased for two consecutive years from 2016-2018, motorcycle fatalities still represented 28 percent of VRU fatalities, with 4,985 motorcyclists dying on our nation's roadways in 2018. In 2019, NHTSA hosted a public meeting on behalf of Vehicle Safety and Behavioral Safety research, where ongoing research focused on motorcycle safety. The agency presented a study on “Motorcycle Conspicuity to Light Vehicle Advanced Driver Assistance Systems Capabilities.” With limited federal research regarding how ADAS interacts with motorcyclists, the AMA believes the federal framework for ADS safety cannot continue unless motorcyclists are considered. The agency must strongly prioritize safety for all road users to ensure that all Americans benefit from the potential road safety improvements promised by the deployment of ADS technology.

The AMA encourages NHTSA's framework for ADS safety to prioritize VRUs by having an inclusive process and engineering measures that require careful public and private testing to ensure that ADS technology can accurately detect and respond to motorcyclists in all traffic situations.

Question 2. *In consideration of optimum use of NHTSA's resources, on which aspects of a manufacturer's comprehensive demonstration of the safety of its ADS should the agency place a priority and focus its monitoring and safety oversight efforts and why?*

The NHTSA must place a priority on ensuring that ADS can safely interact with motorcyclists and other vulnerable road users, because crash data demonstrates that VRUs continue to be disproportionately

represented in traffic fatality data, even as vehicle safety has increased during the past decade. The AMA demands that motorcyclists be included in the ongoing discussion, planning and implementation of the policies and regulations governing ADS rollout. Failure to specifically address motorcycles in statutory and regulatory language amounts to the unacceptable abandoning of motorcycle safety by legislators and regulators.

Question 3. *How would your conception of such a framework ensure that manufacturers assess and assure each core element of safety effectively?*

The AMA strongly believes NHTSA should expand on the “Voluntary Guidance – Automated Driving Systems 2.0: A Vision for Safety,” which recommends that entities involved in the testing and deployment of Automated Driving Systems use the Voluntary Safety Self-Assessment. This change can be achieved through a "vision test" to ensure that ADS is safe for motorcyclists and other road users. Manufacturers can self-certify that their ADS comply with existing applicable safety standards. No federal law or regulation prevents ADS from being built or tested on roadways shared with motorcycles. A "vision test" is an essential test of ADS four primary functions discussed in this proposed rule. It is a critical part of assessing ADS engineering measures to manage risks to motorcyclists and ensure motorcycles are included in all testing and development standards.

In our conception, a "vision test" should include the core ADS Safety Functions mentioned in this public comment to address the following needs of motorcyclists:

ADS should detect and respond to the unique characteristics and profile of motorcycles in all situations and settings, including in parking lots, amid urban congestion, at intersections and on highways, expressways and rural roads.

The Insurance Institute of Highway Safety analyzed the National Motor Vehicle Crash Causation survey and found that 60 percent of crashes involved human errors categorized as "sensing and perceiving." NHTSA should consider defining Operational Design Domain categories, then specify the perception requirements accordingly. If the agency aims to reduce traffic deaths, the ADS regulatory approach should address the common human behavioral issues that contribute to traffic crashes.

Question 4. *How would your framework assist NHTSA in engaging with ADS development in a manner that helps address safety, but without unnecessarily hampering innovation?*

We can achieve our "vision test" framework by expanding on voluntary reporting NHTSA's Voluntary Safety Self-Assessment to specifically include ADS manufacturers. Entities can attest that their technology testing includes motorcycles. The agency can define ODD to ADS manufacturers and developers to ensure that their technology can meet more minimum standards.

Question 5. *How could the agency best assess whether each manufacturer had adequately demonstrated the extent of its ADS ability to meet each prioritized element of safety?*

We can achieve these goals by expanding on voluntary reporting NHTSA's Automated Vehicle Transparency and Engagement for Safe Testing program and the expansion of the Voluntary Safety Self-Assessment to specifically include ADS manufacturers. Entities can attest that their technology testing includes motorcycles are part of all testing and development procedures by encouraging:

Safety Evaluation Reports – ADS manufacturers must detail and make public how their vehicles identify motorcycles among other road users in safety reports in the VSSA; and

Crash data/reporting – ADS manufacturers must report incidents between AVs and motorcycles just as they would incidents between AVs and other road users. Manufacturers must also include human error analysis in crash data and reporting in AV TEST.

Question 6. *Do you agree or disagree with the core elements (i.e., "sensing," "perception," "planning" and "control") described in this document? Please explain why.*

The AMA agrees with the core elements of sensing, perception, planning and control described in the ADS Safety Functions in the proposed rule. We reiterate that our primary concern is that ADS can safely detect motorcyclists in all road scenarios and highlight that it is critical that ADS responds safely.

Conclusion

After more than four years since NHTSA published its first federal automated vehicle policy, we are disappointed the agency has yet to propose any specific guidance or regulation that would establish even the fundamental goals for ADS Safety.

NHTSA promotes the notion that ADS technology for human drivers will lead to fewer injuries and deaths from motor vehicle crashes. The current lack of policy leaves ADS developers uncertain about whether their technology will be deemed safe. Agency and industry concerns about "stifling innovation" leave the public skeptical of claims that ADS contributes to safety improvements. We urge NHTSA to develop specific proposals to ensure that ADS fulfills its safety promise and to ensure that motorcyclists and all other road users benefit from being correctly detected and responded to in all traffic conditions.

Thank you for the opportunity to provide comments on this important issue to motorcyclists.

Sincerely,



Tiffany Cipoletti
Government Affairs Manager, On-Highway
American Motorcyclist Association
444 North Capitol St. NW Suite 837
Washington, D.C. 20001
202.220.1395
tcipoletti@ama-cycle.org
www.americanmotorcyclist.com

