



DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

49 CFR Chapter V

[Docket No. NHTSA-2017-0082]

Automated Driving Systems: A Vision for Safety

AGENCY: National Highway Traffic Safety Administration (NHTSA), Department of Transportation (DOT)

ACTION: Notice of Public Availability and Request for Comments

SUMMARY: NHTSA is releasing new voluntary guidance on automated driving systems – *Automated Driving Systems: A Vision for Safety*. The new voluntary guidance is based on public comments received on the Federal Automated Vehicles Policy (FAVP) released in September 2016. The purpose of this new voluntary guidance is to support industry innovators, States and other key stakeholders as they consider and design best practices relative to the testing and deployment of automated vehicle technologies, while informing and educating the public and improving roadway safety. NHTSA invites public comment on the voluntary guidance and additional ways to improve its usefulness.

This new voluntary guidance is an important part of DOT's multi-modal efforts to support the introduction of automation technologies that hold the promise of fulfilling NHTSA's mission of reducing the number of injuries and fatalities on our roads. As an update to the FAVP this new voluntary guidance serves as NHTSA's current operating guidance for Automated Driving Systems (ADSs - SAE International Automation Levels 3-5). NHTSA intends to continue to revise and refine the guidance periodically to reflect continued public input,

experience, research, and innovation, and will address significant comments in preparing future iterations of the guidance. This guidance supports that effort.

DATES: You should submit your comments early enough to ensure that Docket Management receives them no later than [INSERT DATE 60 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: Comments should refer to the docket number above and be submitted by one of the following methods:

- *Federal Rulemaking Portal:* Please submit one copy to <http://www.regulations.gov>. Follow the online instructions for submitting comments.
- *Mail:* Please submit two copies to Docket Management Facility, U.S. Department of Transportation, 1200 New Jersey Avenue SE, West Building Ground Floor, Room W12-140, Washington, DC 20590-0001.
- *Hand Delivery:* Please submit two copies to 1200 New Jersey Avenue SE, West Building Ground Floor, Room W12-140, Washington, DC, between 9 a.m. and 5 p.m. ET, Monday through Friday, except Federal Holidays.
- *Instructions:* For detailed instructions on submitting comments and additional information on the rulemaking process, see the Public Participation heading of the **SUPPLEMENTARY INFORMATION** section of this document. Note that all comments received will be posted without change to <http://www.regulations.gov>, including any personal information provided.
- *Privacy Act:* Anyone is able to search the electronic form of all comments received into any of our dockets by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). You may review DOT's

complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (65 FR 19477-78) or at <https://www.transportation.gov/privacy>.

- *Docket*: For access to the docket to read background documents or comments received, go to <http://www.regulations.gov> or to the street address listed above. Follow the online instructions for accessing the dockets.

FOR FURTHER INFORMATION CONTACT: For technical issues related to the Voluntary Guidance: Ms. Dee Williams of NHTSA's Office of Vehicle Safety Research at (202) 366-8537 or by email at av_info_nhtsa@dot.gov.

For legal issues: Mr. Steve Wood of NHTSA's Office of Chief Counsel, at (202) 366-2992 or by email at steve.wood@dot.gov.

SUPPLEMENTARY INFORMATION:

Background.

The National Highway Traffic Safety Administration (NHTSA), under the U.S. Department of Transportation, was established by the Highway Safety Act of 1970, to carry out safety programs under the National Traffic and Motor Vehicle Safety Act of 1966 and the Highway Safety Act of 1966. NHTSA is responsible for reducing deaths, injuries, and economic losses resulting from motor vehicle crashes on our nation's roadways. It accomplishes these tasks by conducting research, setting and enforcing safety performance standards for motor vehicles and motor vehicle equipment, generating and disseminating comparative safety performance information to encourage the production and purchase of advanced safety features, requiring the recalling and remedying of defective and noncompliant vehicles and equipment, and by distributing highway safety formula grants to state governments to enable them to

conduct effective highway safety programs. Additionally, NHTSA issues guidance regarding motor vehicle safety issues.

On September 20, 2016, NHTSA developed and published for comment the Federal Automated Vehicles Policy (FAVP). The comment period officially closed on November 22, 2016, but NHTSA continued to receive and consider comments through February 16, 2017. The public docket received 160 unique comments in response to the FAVP representing the traditional motor vehicle industry, the technology sector, public agencies, special interest groups, and private citizens. The agency also held public meetings to seek additional comment.

NHTSA analyzed the docket comments, public meeting proceedings and other stakeholder discussions, recent Congressional hearings, and State activities and used this analysis as the foundation for improvements and refinements to develop NHTSA's new voluntary guidance - *Automated Driving Systems: A Vision for Safety*.

In *Section 1: Voluntary Guidance for Automated Driving Systems (Voluntary Guidance)*, NHTSA offers a nonregulatory approach to Automated Driving System (ADS) safety. This *Voluntary Guidance* supports the automotive industry and other key stakeholders as they consider and design best practices for the testing and safe deployment of ADSs (SAE International Automation Levels 3 through 5 – Conditional, High, and Full Automation Systems). Section 1 contains 12 priority safety design elements for consideration, including vehicle cybersecurity, human machine interface, crashworthiness, consumer education and training, and post-crash ADS behavior. Given the developing state of the technology, this *Voluntary Guidance* provides a flexible framework for industry to use in choosing how to address a given safety design element. In addition, to help support public trust and confidence, the *Voluntary Guidance* encourages entities engaged in testing to publicly disclose Voluntary

Safety Self-Assessments of their systems demonstrating their varied approaches to achieving safety.

Vehicles operating on public roads are subject to both Federal and State jurisdictions, and States are continuing to draft legislation to safely deploy emerging ADSs. To support the State work, NHTSA offers *Section 2: Technical Assistance to States, Best Practices for Legislatures Regarding Automated Driving Systems (Best Practices)*. The section clarifies and delineates Federal and State roles in the regulation of ADSs. NHTSA remains responsible for regulating the safety design and performance aspects of motor vehicles and motor vehicle equipment; States continue to be responsible for regulating the human driver and vehicle operations.

The section also provides *Best Practices for Legislatures*, which incorporates common safety-related components and significant elements regarding ADSs that States should consider incorporating in legislation. In addition, the section provides *Best Practices for State Highway Safety Officials*, which offers a framework for States to develop procedures and conditions for ADS' safe operation on public roadways. It includes considerations in such areas as applications and permissions to test, registration and titling, working with public safety officials, and liability and insurance.

NHTSA emphasizes the importance of *Automated Driving Systems: A Vision for Safety* as new voluntary guidance in its entirety – a cohesive package that represents the Agency's current position on Automated Driving Systems. As the new voluntary guidance is a result of improvements based on public comments and new information, in the future, it too will be updated to reflect input by the public, advances in technology, increased presence of ADSs on public roadways, new research, and any regulatory action or statutory changes that could occur at both the Federal and State levels. NHTSA encourages collaboration and communication

between all government entities and the private sector as the technology evolves, and the Agency will continue to coordinate dialogue among all stakeholders. The Department and NHTSA recognize that regulatory efforts in this arena must promote safety, remove any existing unnecessary barriers, remain technology neutral, and enable a pathway for innovation that has the potential to save lives. Any initiative in the regulatory realm will seek to remove regulatory barriers and burdens that could unnecessarily hinder the safe and efficient implementation of ADSs.

The new guidance is available at <https://www.nhtsa.gov/technology-innovation/automated-vehicles>, which will also serve as a central repository of associated references to this and other NHTSA ADS resources, including new frequently asked questions. Additionally, to support manufacturers and other entities looking to request regulatory action from NHTSA, companies can find an informational resource, *Understanding NHTSA's Regulatory Tools: Instructions, Practical Guidance, and Assistance for Entities Seeking to Employ NHTSA's Regulatory Tools*. The new guidance is also available in the public docket at <http://www.regulations.gov> (search Docket No. NHTSA-2017-0082).

Public Comment

NHTSA is seeking written public comments on the new voluntary guidance - *Automated Driving Systems: A Vision for Safety* and additional ways to improve its usefulness. The Agency expects and intends the voluntary guidance to continue to be updated based on public comment; the experience of the agency, manufacturers, suppliers, consumers, and others; and further research findings and technological innovations. To inform the next iteration of the voluntary guidance, the Agency may hold public meetings and workshops associated with specific items relevant to the guidance. Once the timing of those meetings has been finalized, the Agency will

publish **Federal Register** notices for those meetings. Given that not all interested persons may have an opportunity to attend such meetings, the Agency's solicitation of written comments will ensure that all persons have a chance to participate. When possible, NHTSA will also arrange for the meetings to be webcast and for written transcripts of the meetings. When available, webcast videos and transcripts will be at <https://www.nhtsa.gov/technology-innovation/automated-vehicles>.

Public Participation

How do I prepare and submit comments?

Your comments must be written and in English. To ensure that your comments are filed correctly in the docket, please include the docket number of this document in your comments.

Your comments must not be more than 15 pages long (49 CFR 553.21). NHTSA established this limit to encourage you to write your primary comments in a concise fashion. However, you may attach necessary additional documents to your comments. There is no limit on the length of the attachments.

Please submit one copy (two copies if submitting by mail or hand delivery) of your comments, including the attachments, to the docket following the instructions given above under **ADDRESSES**. Please note, if you are submitting comments electronically as a PDF (Adobe) file, we ask that the documents submitted be scanned using an Optical Character Recognition (OCR) process, thus allowing the agency to search and copy certain portions of your submissions.

How do I submit confidential business information?

If you wish to submit any information under a claim of confidentiality, you should submit three copies of your complete submission, including the information you claim to be confidential

business information, to the Office of the Chief Counsel, NHTSA, at the address given above under **FOR FURTHER INFORMATION CONTACT**. In addition, you may submit a copy (two copies if submitting by mail or hand delivery), from which you have deleted the claimed confidential business information, to the docket by one of the methods given above under **ADDRESSES**. When you send a comment containing information claimed to be confidential business information, you should include a cover letter setting forth the information specified in NHTSA's confidential business information regulation (49 CFR part 512).

Will the agency consider late comments?

NHTSA will consider all comments received before the close of business on the comment closing date indicated above under **DATES**. To the extent possible, the Agency will also consider comments received after that date. Given that we intend for the policy document to be a living document and to be developed in an iterative fashion, subsequent opportunities to comment will also be provided periodically.

How can I read the comments submitted by other people?

You may read the comments received at the address given above under **COMMENTS**. The hours of the docket are indicated above in the same location. You may also see the comments on the Internet, identified by the docket number at the heading of this notice, at <http://www.regulations.gov>.

Please note that, even after the comment closing date, NHTSA will continue to file relevant information in the docket as it becomes available. Further, some people may submit late comments. Accordingly, the agency recommends that you periodically check the docket for new material.

Issued in Washington D.C. under authority delegated by 49 CFR 1.95.

Nathaniel Beuse

Associate Administrator for Vehicle

Safety Research

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