

The Associate Administrator for Vehicle Safety Research, Nathaniel Beuse, signed the following notice on September 20, 2016 and we are submitting it for publication in the Federal Register. While we have taken steps to ensure the accuracy of this internet version of the notice, it is not the official version of the notice. Please refer to the official version in a forthcoming Federal Register publication, which will appear on the Government Printing Office's FDSys website ([www.gpo.gov/fdsys/search/home.action](http://www.gpo.gov/fdsys/search/home.action)) and on Regulations.gov (<http://www.regulations.gov>) in Docket No. NHTSA-2016-0090. Once the official version of this document is published in the Federal Register, this version will be removed from the internet and replaced with a link to the official version.

**DEPARTMENT OF TRANSPORTATION**

**National Highway Traffic Safety Administration**

**Docket No. NHTSA-2016-0090**

**Request for Comment on "Federal Automated Vehicle Policy"**

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

**ACTION:** Notice and Request for Comments.

**SUMMARY:** NHTSA invites public comment on the document, "Federal Automated Vehicle Policy." This document is intended as a starting point that provides needed initial guidance to industry, government, and consumers. It will necessarily evolve over time, changing based on public comment; the experience of the agency, manufacturers, suppliers, consumers, and others; and/or further technological innovation. NHTSA intends to revise and refine the document within one year, and periodically thereafter, to reflect such public input, experience, and innovation, and will address significant comments received in the next revision of this document.

**DATES:** You should submit your comments early enough to ensure that Docket Management receives them no later than [INSERT DATE 60 DAYS AFTER DATE OF 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: <http://www.regulations.gov>. Follow the online instructions for submitting comments.

- **Mail:** 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:** 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: Mr. Frank Barickman, Team Leader at NHTSA's Vehicle Research and Test Center at (937) 666-4511 or by email at [av\\_info\\_nhtsa@dot.gov](mailto: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](mailto:steve.wood@dot.gov).

## SUPPLEMENTARY INFORMATION

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. This is accomplished 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 calling and remedying of defective and noncompliant vehicles and equipment, and by making grants to state and local governments to enable them to conduct effective local highway safety programs. Prior or in addition to issuing standards, NHTSA also issues guidance regarding motor vehicle safety issues.

Over the past several decades, many important safety technologies have become standard equipment through regulation and voluntary industry action, and tremendous adjustments in consumer behavior about safety have been made through behavioral safety programs and the promotion of these programs by safety partners. Despite these efforts and the hundreds of thousands of lives saved attributable to these efforts, crashes still happen, and people are still injured and killed. 35,092 people died on US roadways in 2015. Moreover, NHTSA's data suggest that 94% of crashes can be tied to a human choice or behavior.<sup>1</sup>

Technologies that can help drivers avoid crashes, or help vehicles themselves avoid crashes, are ushering in a new era of safety for the motoring public. As vehicle technologies take

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<sup>1</sup> See Singh, S. (2015, February). Critical reasons for crashes investigated in the National Motor Vehicle Crash Causation Survey. (Traffic Safety Facts Crash Stats. Report No. DOT HS 812 115). Washington, DC: National Highway Traffic Safety Administration.

on more and more of the driving task – i.e., as vehicle automation progresses, enabled by radar, camera, sensors, and communications technologies, along with highly sophisticated computer systems and software to interpret and use the data obtained by the vehicle – these innovations are expected to begin to address and mitigate that overwhelming majority of crashes due to human choices or behavior.

The term “vehicle automation” today refers to a spectrum of technologies, which can be grouped broadly into several levels. Some levels will only provide crash warnings to human drivers, or brake the vehicle automatically if the human driver fails to brake soon enough or hard enough, while higher levels will combine these abilities to create driver-assistance systems to reduce the demand of driving. At the very highest levels, the automated system itself (and not the human) may function as the “driver” of the vehicle. At each level, the safety potential grows as does the opportunity to improve mobility, reduce energy consumption and improve the livability of cities. To realize these tremendous benefits, NHTSA believes it should encourage the adoption of these technologies and support their safe introduction. At the same time, the remarkable speed with which increasingly complex technologies are evolving challenges NHTSA to use its full complement of tools to support the safe introduction of these technologies, so that they can provide the promised safety benefits today, and achieve their full safety potential in the future. To meet this challenge, NHTSA must continue to build its expertise and knowledge to keep pace with developments, expand its regulatory capability, and increase its speed of execution.

After considerable input from a wide range of stakeholders, NHTSA has developed a new document titled “Federal Automated Vehicle Policy.” NHTSA is issuing this document as Agency guidance rather than in a rulemaking in order to speed the delivery of an initial

regulatory framework and best practices to guide manufacturers and other entities in the safe design, development, testing, and deployment of highly automated vehicles (HAVs) and also to ensure that premature, static regulatory requirements do not hinder innovation and diffusion of the dynamic technologies that are being developed in the industry. The document is available at [www.nhtsa.gov/AV](http://www.nhtsa.gov/AV) (or at <http://www.nhtsa.gov> (search “AV Policy”)), and also at <http://www.regulations.gov> (search Docket No. NHTSA-2016-0090). In the following pages, we divide the task of facilitating the safe introduction and deployment of HAVs into four sections: (1) Vehicle Performance Guidance for Highly Automated Vehicles; (2) Model State Policy; (3) NHTSA’s Current Regulatory Tools; and (4) New Tools and Authorities.

### **Vehicle Performance Guidance for Highly Automated Vehicles**

The Vehicle Performance Guidance for Highly Automated Vehicles section outlines best practices for the safe pre-deployment design, development and testing of HAVs prior to commercial sale or operation on public roads. This Guidance defines “deployment” as the operation of an HAV by members of the public who are not the employees or agents of the designer, developer, or manufacturer of that HAV.

This Guidance is intended to be an initial step to guide the safe designing, testing and deployment of HAVs. It sets DOT’s expectations of industry by providing reasonable practices and procedures that manufacturers, suppliers, and other entities should follow in the immediate short term to design, test and deploy HAVs. The data generated from these activities should be shared in a way that allows government, industry, and the public to increase their learning and understanding as technology evolves but protects legitimate privacy and competitive interests.

### **Model State Policy**

The Model State Policy confirms that States retain their traditional responsibilities for

vehicle licensing and registration, traffic laws and enforcement, and motor vehicle insurance and liability regimes while outlining the Federal role for HAVs. Today, a motorist generally can drive across state lines without a worry more complicated than, “did the speed limit change?” The integration of HAVs should not change that ability. Similarly, a manufacturer should be able to focus on developing a single HAV fleet that can be sold and used in all states.

State governments play an important role in facilitating HAVs, ensuring they are safely deployed, and promoting their life-saving benefits. Since 2014, DOT has partnered with the American Association of Motor Vehicle Administrators (AAMVA) to explore HAV policies. This collaboration was one of the bases for the Model State Policy framework presented here and identifies where new issues fit within the existing federal/state structure. The shared objective is to ensure the establishment of a consistent national framework that allows for different policies and approaches across States, while avoiding a patchwork of incompatible laws.

### **NHTSA’s Current Regulatory Tools**

NHTSA will continue to exercise its available regulatory authority over HAVs using its existing regulatory tools, including interpretations, exemptions, notice-and-comment rulemaking, and defects and enforcement authority. NHTSA has broad authority to identify safety defects, allowing the Agency to recall vehicles or equipment that pose an unreasonable risk to safety even when there is no applicable Federal Motor Vehicle Safety Standard (FMVSS).

To aid regulated entities and the public in understanding and using these tools (including for purposes related to the introduction of new HAVs), NHTSA has prepared a new information and guidance document, contained in Section III of the HAV Policy. This document provides instructions, practical guidance, and assistance to entities seeking to employ those tools.

Furthermore, NHTSA has streamlined its review process and is committing to issuing simple

HAV-related interpretations in 60 days, and ruling on simple HAV-related exemption requests in six months.

NHTSA advises interested persons that, unlike the other sections of the HAV Policy, Section III is intended to have wider application outside the automated vehicles context. Persons interested in NHTSA's general practices and procedures for interpretations, exemptions, rulemaking, and reconsideration petitions may wish to review Section III and determine whether they wish to submit comments.

### **New Tools and Authorities**

The more effective use of NHTSA's existing regulatory tools will help to expedite the safe introduction and regulation of new HAVs. However, in part because today's governing statutes and regulations were developed when HAVs were only a remote notion, those tools alone may be insufficient to ensure that HAVs are introduced safely, and to realize the full safety promise of new technologies. The speed at which HAVs are advancing, combined with the complexity and novelty of these innovations, will challenge the Agency's conventional regulatory processes and capabilities. This challenge requires NHTSA to examine whether the ways in which NHTSA has addressed safety for the last several decades should be expanded to realize the safety potential of HAVs over the decades to come.

Therefore, Section IV of the HAV Policy identifies potential new tools, authorities, and regulatory approaches that could aid the safe deployment of new technologies by enabling the Agency to be more nimble and flexible. There will always be an important role for standards and testing protocols based on careful scientific research and developed through the give-and-take of an open public process. However, it is likely that additional regulatory tools along with new expertise and research also will be needed to allow the Agency to more quickly address safety

challenges and speed the deployment of lifesaving technology.

### **Public Comment**

Although most of this policy is effective immediately upon publication, NHTSA is seeking public comment on the entire document. While the Agency sought input from various stakeholders during the development of the document, it recognizes that not all interested persons had a full opportunity to provide such input. Formal comments will allow for that opportunity.

Similarly, some of the items in the vehicle performance guidance are subject to the requirements of the Paperwork Reduction Act, which requires that the Agency provide separate notice and comment. The notice for those items will be published shortly at <http://www.regulations.gov> (search Docket No. NHTSA-2016-0091). Finally, NHTSA expects to hold public meetings and workshops associated with specific items in this Policy. Once the timing of those meetings has been finalized, Federal Register notices for those meetings will also be published.

While the Policy is intended as a starting point that provides needed initial guidance to industry, government, and consumers, it will necessarily evolve over time to meet the changing needs and demands of improved safety and technology. Accordingly, NHTSA expects and intends the policy document and its guidance to be iterative, changing based on public comment; the experience of the agency, manufacturers, suppliers, consumers, and others; and further technological innovation. NHTSA intends to revise and refine the document regularly to reflect such experience, innovation, and public input.

## **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.

**Authority:** 49 U.S.C. 30101.

Issued in Washington, DC on \_\_\_\_\_ under authority delegated in 49 CFR part 1.95.

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Nathaniel Beuse

Associate Administrator for Vehicle Safety Research