



U.S. Department
of Transportation
**National Highway
Traffic Safety
Administration**

1200 New Jersey Avenue SE.
Washington, DC 20590

July 16, 2020

The Honorable Robert L. Sumwalt, III
Chairman
National Transportation Safety Board
490 L'Enfant Plaza East, SW
Washington, DC 20594

Dear Chairman Sumwalt:

This letter responds to the safety recommendations issued by the National Transportation Safety Board (NTSB) to the National Highway Traffic Safety Administration (NHTSA) in the NTSB's November 5, 2019, report, *Bicyclist Safety on US Roadways: Crash Risks and Countermeasures*, SS-19/01. Our responses to the safety recommendations are discussed below.

NTSB Recommendations and Requested Designations:

H-19-36

Incorporate into the New Car Assessment Program (NCAP) tests to evaluate a car's ability to avoid crashes with bicycles.

H-15-6 (reiterated recommendation)

Expand the NCAP 5-star rating system to include a scale that rates the performance of forward collision avoidance systems.

H-15-7 (reiterated recommendation)

Once the rating scale, described in Safety Recommendation H-15-6, is established, include the ratings of forward collision avoidance systems on the vehicle Monroney labels.

H-18-43 (reiterated recommendation)

Incorporate pedestrian safety systems, including pedestrian collision avoidance systems and other more-passive safety systems, into the NCAP.

NHTSA Action:

On October 16, 2019, NHTSA announced its plan to propose significant updates to the NCAP in 2020, including consideration of crash avoidance technologies aimed at reducing risks to pedestrians and cyclists. NHTSA continues its research efforts into aspects of these technologies, and will be conducting research as to how best provide consumers with information relating to crash avoidance technologies on the Monroney label. NHTSA will consider next steps when the research is complete.

NHTSA requests that recommendations H-19-36, H-15-6, H-15-7, and H-18-43 be classified as **Open, Acceptable Response**.

H-19-37

In collaboration with the Intelligent Transportation Systems Joint Program Office and the Federal Highway Administration (FHWA), expand vehicle to pedestrian research efforts to ensure that bicyclists and other vulnerable road users will be incorporated into the safe deployment of connected vehicle systems.

H-13-30 (reiterated recommendation)

Develop minimum performance standards for connected vehicle technology for all highway vehicles.

H-13-31 (reiterated recommendation)

Once minimum performance standards for connected vehicle technology are developed, require this technology to be installed on all newly manufactured highway vehicles.

NHTSA Action:

NHTSA, along with other agencies within the U.S. Department of Transportation (DOT), including the Intelligent Transportation Systems Joint Program Office and FHWA, is actively engaged in efforts to preserve the 75 MHz of bandwidth located at 5.9 GHz that had been allocated since 1999 by the Federal Communications Commission (FCC) for Intelligent Transportation System applications (known as the “Safety Band”). The Department has made it clear, including in *Preparing for the Future of Transportation: Automated Vehicles 3.0*,¹ that it sees the value and importance of vehicle-to-vehicle communication (V2V) and a vehicle’s communication with the surrounding environment, including infrastructure and other road users or, collectively, Vehicle-to-Everything (V2X).

V2X is a general term referring to wireless or cellular communications technology that has the potential to drastically reduce motor vehicle crashes, improve mobility, and expand the operational domains of emerging driving automation solutions by providing redundant sensing capabilities. V2X technology offers advantages for Advanced Driver Assistance System developers and applications because, unlike radar, camera or even lidar, it does not rely on line-of-sight targeting to identify possible crash threats. As such, crashes involving pedestrians and/or bicyclists, where conspicuity of the pedestrian/cyclist is often a factor, are likely to benefit particularly from V2X technology. For this reason, NHTSA and DOT have supported SAE International in developing the V2X messaging standards that could be used for Vulnerable Road User (VRU) safety applications (SAE J2945/9—VRU Safety Message Minimum Performance Requirements).

In fact, over the past 20 years, DOT has invested over \$700 million in research and development of V2X through partnerships with industry and State/local governments.² As a result of these investments and partnerships, V2X technology is on the verge of wide-scale deployment across the Nation with over 70 active deployments of V2X communications using the 5.9 GHz band.

¹ *Preparing for the Future of Transportation: Automated Vehicles 3.0*, DOT.

<https://www.transportation.gov/sites/dot.gov/files/docs/policy-initiatives/automated-vehicles/320711/preparing-future-transportation-automated-vehicle-30.pdf>

² See *id.*

DOT estimated that at the end of 2019, there were over 40,000 vehicles with aftermarket V2X communications devices and close to 7,000 infrastructure V2X devices across the United States. Furthermore, all seven channels in the 5.9 GHz band are actively used in these deployments.³

Nevertheless, all of the investments and the potential benefits of V2X, as well as its expanded use to support VRU safety, are threatened by FCC's actions to severely restrict available spectrum for transportation safety. For these reasons, NHTSA and DOT are currently focused on preserving the Safety Band; and encouraging the automotive industry, wireless technology companies, and other stakeholders to continue developing and deploying technologies that leverage the 5.9 GHz spectrum for transportation safety benefits. Given the uncertainty concerning the Safety Band, NHTSA has focused its efforts on working with the FCC, the National Telecommunications and Information Administration, and industry stakeholders to resolve the Safety Band issues before considering next steps on the proposed rulemaking.

Based on the January 12, 2017, notice of proposed rulemaking for V2V communications⁴ and the December 18, 2018, request for comment on V2X communications⁵ technologies, NHTSA is working with its partners in the DOT on its recent completed research⁶ and evaluation of the numerous public comments received to determine next steps. DOT and NHTSA support the priority use of the 5.9 GHz spectrum for transportation safety communications.

NHTSA requests that recommendations H-19-37, H-13-30, and H-13-31 be classified as **Open, Acceptable Response**.

H-19-38

(1) Convene a bicycle safety coalition of stakeholders to develop a comprehensive national strategy to increase bicycle helmet use among bicyclists of all ages that would include, at a minimum, a model all-ages bicycle helmet law; (2) disseminate the strategy to all States and make it available on your website.

NHTSA Action:

NHTSA has compiled a list of State bicyclist safety laws, including laws on bicycle helmet use. NHTSA plans to compare these laws to existing model laws to inform a comprehensive national strategy to increase use. NHTSA also plans to meet with stakeholders to inform the strategy. NHTSA is scheduling a meeting with the League of American Bicyclists in 2020. The League is an advocacy organization representing bicyclists across the Nation advocating for safer roads and providing bicycling education. NHTSA is also proposing to meet with other highway safety stakeholders once it has identified gaps in existing State laws.

NHTSA requests that recommendation H-19-38 be classified as **Open, Acceptable Response**.

³ Volpe, The National Transportation Systems Center (DOT).

⁴ 82 Fed. Reg. 3854 (Jan. 12, 2017)

⁵ <https://www.regulations.gov/document?D=DOT-OST-2018-0210-0001>

⁶ <https://www.regulations.gov/document?D=NHTSA-2019-0083-0004>

H-19-39

After Safety Recommendation H-19-38 is completed, include the model all-ages bicycle helmet law in *Countermeasures That Work: A Highway Safety Countermeasure Guide for State Highway Safety Offices*.

NHTSA Action:

The ninth edition of *Countermeasures That Work: A Highway Safety Countermeasure Guide for State Highway Safety Offices, 2017* (DOT HS 812 478) includes “Bicycle Helmet Laws for Children” as well as “Bicycle Helmet Laws for Adults.” The purpose of bicycle helmet laws is to increase helmet use, thereby reducing the number of severe and fatal head injuries resulting from bicycle crashes. For countermeasures to be included in the Guide, they must be shown to be effective in published research. We are aware of some research that focuses on the effectiveness of all-ages laws. However, the research has not covered the use and implementation of these laws in practice, as no States have enacted such laws currently. If the effectiveness of a model all-ages bicycle helmet law is shown in published research meeting NHTSA’s standard for inclusion in the Guide, it will be added in an update.

NHTSA requests that recommendation H-19-39 be classified as **Open, Acceptable Response**.

H-13-11 (reiterated recommendation)

Develop performance standards for visibility enhancement systems to compensate for blind spots in order to improve the ability of drivers of single-unit trucks with gross vehicle weight ratings (GVWRs) over 10,000 pounds to detect vulnerable road users, including pedestrians and cyclists, in their travel paths.

H-13-12 (reiterated recommendation)

Once the performance standards requested in H-13-11 have been developed, require newly manufactured single-unit trucks with GVWRs over 10,000 pounds to be equipped with visibility enhancement systems meeting the performance standards.

H-14-1 (reiterated recommendation)

Require that newly manufactured truck-tractors with GVWRs over 26,000 pounds be equipped with visibility enhancement systems to improve the ability of drivers of tractor-trailers to detect passenger vehicles and vulnerable road users, including pedestrians, cyclists, and motorcyclists.

NHTSA Action:

On October 10, 2019, NHTSA published an Advance Notice of Proposed Rulemaking (ANPRM) seeking public comment on permitting camera-based rear visibility systems, commonly referred to as “Camera Monitor Systems” or “CMS,” as an alternative to inside and outside rearview mirrors on both light vehicles and heavy trucks, including single-unit trucks.⁷ The ANPRM requested comment from the public on the appropriate minimum performance standards for CMS systems to replace mirrors, as well as other related safety topics. NHTSA is currently reviewing the ANPRM comments and developing next steps.

⁷ 84 Fed. Reg. 54533 (Oct. 10, 2019)

NHTSA requests that recommendations H-13-11, H-13-12 and H-14-1 be classified as **Open, Acceptable Response**.

H-18-39 (reiterated recommendation)

Revise Federal Motor Vehicle Safety Standard (FMVSS) No. 108 to include performance-based standards for vehicle headlight systems correctly aimed on the road and tested on vehicle to account for headlight height and lighting performance.

NHTSA Action:

FMVSS No. 108 contains requirements for both equipment and vehicles. NHTSA is working on vehicle-level headlighting performance requirements as part of its adaptive driving beam headlighting rulemaking. On October 12, 2018, NHTSA published a Notice of Proposed Rulemaking (NPRM) to permit adaptive driving beam headlighting systems that contained proposed vehicle-level requirements and test procedures for headlighting system performance.⁸ NHTSA is working to publish a final rule in 2020.

NHTSA requests that recommendation H-18-39 be classified as **Open, Acceptable Response**.

H-18-40 (reiterated recommendation)

Revise FMVSS No. 108 to allow adaptive headlight systems.

NHTSA Action:

On October 12, 2018, NHTSA published an NPRM to permit adaptive driving beam headlighting systems.⁹ NHTSA is working to publish a final rule on this rulemaking in 2020.

NHTSA requests that recommendation H-18-40 be classified as **Open, Acceptable Response**.

If you have any questions, or require additional information, please contact me or Steven Bayless, Director, Governmental Affairs, Policy and Strategic Planning, at 202-604-8414.

Sincerely yours,



James C. Owens
Deputy Administrator

⁸ 83 Fed. Reg. 51766 (Oct. 12, 2018)

⁹ 83 Fed. Reg. 51766 (Oct. 12, 2018)