



**OFFICE OF THE SECRETARY  
U.S. DEPARTMENT OF TRANSPORTATION  
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**Notice of Request for Comments:  
V2X Communications**

**SUBMITTED BY:  
American Trucking Associations, Inc.  
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The American Trucking Associations, Inc. (ATA)<sup>1</sup> provides these comments in response to the Department of Transportation's (DOT) Request for Comment on V2X Communications.<sup>2</sup>

As the national representative of the trucking industry, ATA has a strong interest in highway safety for all road users, including pedestrians and cyclists. Highways are the motor carriers' and drivers' workplace. Employing more than 7.5 million people and moving 10.8 billion tons of freight annually,<sup>3</sup> trucking is the industry most responsible for moving America's economy. The trucking industry moves 70.2 percent of our nation's domestic freight and is a critical player in the safety of our nation's roadways, spending approximately \$10 billion per year on safety training, technology, equipment, and management.<sup>4</sup>

ATA has long sought to advance the deployment of wireless communication technologies as a means of improving road safety and promoting innovation in the trucking and transportation industries. As a strong advocate for road safety, ATA continues to be a leader in protecting the 5.9 GHz band

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<sup>1</sup> ATA is a united federation of motor carrier and allied members, state trucking associations, and national trucking conferences and councils created to promote and protect the interests of the trucking industry. Directly and through its affiliated organizations, ATA represents more than 40,000 industry stakeholders in the United States encompassing every type and class of motor carrier operation.

<sup>2</sup> 83 Fed. Reg. 66338 (December 26, 2018).

<sup>3</sup> Ibid

<sup>4</sup> ATA, American Trucking Trends 2018.

(5.850-5.925 GHz), including all seven of the allocated channels, from signal interference for vehicle-to-vehicle (V2V), vehicle-to-infrastructure (V2I) and related applications (collectively referred to as V2X).

ATA concurs with DOT's view that, "V2X technologies have the potential for significant safety and mobility benefits, both on their own and as complementary technologies when combined with in-vehicle sensors supporting the integration of automated vehicles and other innovative applications such as platooning."<sup>5</sup> As studies of Dedicated Short-Range Communications (DSRC) based V2X by the National Highway Traffic Safety Administration (NHTSA) have shown, just four V2V applications could avoid or mitigate 89 percent of light duty vehicle crashes,<sup>6</sup> benefiting all road users. While NHTSA is currently conducting research on V2V for heavy vehicles, the agency estimates that 70 percent of crashes involving trucks occurred in scenarios that could potentially be addressed by V2V systems.<sup>7</sup>

As noted in this request for comment, there have been developments in core aspects of the communication technologies that could be associated with V2X. This request for comment also highlights some of the many actions being taken by DOT, State and local governments, and industry in developing and deploying DSRC-based V2X technologies, including: the announced plans of two passenger vehicle manufacturers that will greatly expand the number of DSRC-equipped vehicles on the roads in the next few years; DOT-funded deployment programs, such as the Ann Arbor Connected Vehicle Environment, Connected Vehicle Pilots Program, and the Advanced Transportation and Congestion Management Technologies Deployment Program; and, the progress by State and local governments deploying V2X technology – that DOT estimates will result in more than 18,000 vehicles deployed with aftermarket DSRC-based V2X communication devices and more than 1,000 infrastructure V2X devices installed at intersections and along roadways in 25 States<sup>8</sup> – which, as noted in DOT's *Preparing for the Future of Transportation: Automated Vehicles 3.0*, actively utilize all seven channels in the 5.9 GHz band.<sup>9</sup> To these deployments, ATA would also add the rapid development of driver-assistive truck platooning enabled by DSRC technology,<sup>10</sup> which has been successfully demonstrated on U.S. roads by a number of truck manufacturers, technology suppliers and fleets, as well as the Federal Highway Administration.<sup>11</sup>

Given these significant investments in DSRC technology for V2X applications by both the public and private sector, ATA recommends the following principles be considered in evaluating options for DOT's role and actions in ensuring that the safety and mobility benefits of connected vehicles are achieved without interfering with the rapid technological innovations occurring in both the automotive and telecommunications industries:

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<sup>5</sup> 83 Fed. Reg. 66338 (December 26, 2018).

<sup>6</sup> See 82 Federal Register 3863.

<sup>7</sup> Chang, J. (2016, July). Summary of NHTSA heavy-vehicle vehicle-to-vehicle safety communications research. (Report No. DOT HS 812 300). Washington, DC: National Highway Traffic Safety Administration.

<sup>8</sup> Ibid.

<sup>9</sup> *Preparing for the Future of Transportation: Automated Vehicles 3.0* (p. 14), U.S. DOT, October 2018, <https://www.transportation.gov/av>.

<sup>10</sup> Driver-assistive truck platooning uses V2V communication to connect the trucks' active safety systems – braking, acceleration, and, in some cases, steering – allowing trucks to travel closer together than would otherwise be possible, reducing aerodynamic drag and increasing fuel efficiency.

<sup>11</sup> <https://www.fhwa.dot.gov/pressroom/fhwa1713.cfm>.

- Same-Channel Coexistence: Non-DSRC communications technology for V2X applications must not disrupt the current DSRC-based deployments that are occurring under existing FCC rules. DSRC use should continue to remain across all seven allocated channels without interference.
- Technology Interoperability and Backward Compatibility: Non-DSRC technology used for V2X communications should be backward compatible and interoperable with deployed systems, so that safety data can be exchanged among V2X-equipped vehicles, regardless of which V2X communications technology is on each vehicle.
- Testing: Any new communication technology under consideration for V2X applications should be rigorously tested, including around-the-clock real-world roadway safety testing, to ensure that it achieves the goals of same-channel coexistence, technology interoperability, and backward compatibility.

ATA looks forward to widespread deployment of V2X communications throughout the transportation sector that will enable real-time communication among vehicles of all types, roadway infrastructure devices, and all road users, to reduce crashes and improve traffic flow. When considering options that would allow new communications technologies for V2X applications, DOT policies and actions should support a framework ensuring that new technologies and innovations extend the benefits of deployed V2X systems rather than cause disruptions and delays to the widespread deployment of current V2X systems. In this regard, ATA notes the work being done by the IEEE 802 LAN/MAN Standards Committee to produce a Next Generation V2X standard to provide a seamless evolution path for DSRC that guarantees device interoperability, same-channel coexistence, and backward compatibility.<sup>12</sup> Such a framework will stimulate further near-term investments in DSRC by ensuring that those investments will be protected and enhanced in years to come.

Thank you for the opportunity to submit these comments. If you have any questions, please contact Ross Froat at (703) 838-7980 or [rfroat@trucking.org](mailto:rfroat@trucking.org).

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<sup>12</sup> See comments of IEEE 802 LAN/MAN Standards Committee dated January 17, 2019, submitted to FCC GN Docket No. 18-357, *Office of Engineering and Technology and Wireless Telecommunications Bureau Seek Comment on 5GAA Petition Waiver to Allow Deployment of Cellular Vehicle-To-Everything(C-V2X) Technology in the 5.9 GHz Band*.