

July 22, 2020

The Honorable John Thune  
Chairman  
Subcommittee on Communications, Technology,  
Innovation and the Internet  
Committee on Commerce, Science, and  
Transportation  
United States Senate  
Washington, DC 20510

The Honorable Brian Schatz  
Ranking Member  
Subcommittee on Communications, Technology,  
Innovation and the Internet  
Committee on Commerce, Science, and  
Transportation  
United States Senate  
Washington, DC 20510

Dear Chairman Thune and Ranking Member Schatz:

As a coalition of transportation industry stakeholders comprised of state, city, and county departments of transportation, public transportation, automakers, vehicle suppliers, trucking, transportation safety groups, law enforcement, first responders, auto insurers, bus associations, infrastructure equipment suppliers, bicyclists, and pedestrians, among others that care deeply about transportation safety, we write to express significant concern with efforts underway at the Federal Communications Commission (FCC) to reallocate spectrum in the 5.9 GHz band away from transportation safety. Reducing the amount of spectrum available to Vehicle-to-Everything (V2X) technology undermines our shared interest in reducing the number of traffic fatalities and injuries that occur each year on U.S. roadways, improving motor vehicle safety, and improving the operational performance of roadways by reducing congestion across the transportation system. Such a decision would also harm U.S. global competitiveness with respect to next-generation automotive safety technologies. We ask you to use the Committee's authority over the FCC to direct the Commission to reconsider the approach in the Notice of Proposed Rulemaking (NPRM) that reallocates spectrum within the 5.9 GHz band for unlicensed uses.

As you know, the 5.9 GHz spectrum band is currently reserved for intelligent transportation systems. Commonly referred to as V2X technologies, these systems allow vehicles to communicate with other vehicles, infrastructure, law enforcement, and bicycle and pedestrian road users to avoid crashes, enhance safety, improve transportation efficiency, and reduce air pollution. The National Highway Traffic Safety Administration (NHTSA) predicts that the safety applications enabled by V2X technologies could eliminate or mitigate the severity of up to 80 percent of non-impaired crashes, significantly reducing the nearly 37,000 lives lost and three million injuries that occur on U.S. roadways each year.<sup>1</sup> In addition, 70 percent of crashes involving commercial trucks could be mitigated by V2X technologies according to the NHTSA. V2X technologies will provide real economic savings as well by significantly reducing the more than \$800 billion in annual costs associated with crashes on American roads.<sup>2</sup>

Furthermore, these technologies are uniquely capable of reducing traffic congestion through prioritized traffic signal timing, truck platooning, and crash reduction, reducing travel time and delays for commuters and commerce alike, delays that cost the nation more than \$166 billion annually according to the U.S. Department of Transportation (USDOT).<sup>3</sup> V2X pedestrian detection systems will better protect vulnerable road users, which encompasses a broad set of road users – people walking, children being pushed in strollers, people using wheelchairs or other mobility devices, passengers embarking and disembarking

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<sup>1</sup> National Highway Traffic Safety Administration Press Release: Proposed rule would mandate vehicle-to-vehicle (V2V) communication on light vehicles. Dec. 13, 2016. Available at: [https://one.nhtsa.gov/About-NHTSA/PressReleases/ci.nhtsa\\_v2v\\_proposed\\_rule\\_12132016.print](https://one.nhtsa.gov/About-NHTSA/PressReleases/ci.nhtsa_v2v_proposed_rule_12132016.print).

<sup>2</sup> Comments of U.S. Department of Transportation, ET Docket No. 19-138, at 8 (filed Mar. 13, 2020).

<sup>3</sup> Comments of U.S. Department of Transportation, ET Docket No. 19-138, at 8 (filed Mar. 13, 2020).

onto/off of buses and trains, and people riding bicycles and scooters. Preserving the spectrum for V2X would provide greater benefit for the American people than reallocating the spectrum for unlicensed devices.

USDOT and public and private sector transportation stakeholders have worked together to bring this technology to the U.S. market. Billions of dollars – including at least \$2 billion in public funding from federal, state, and local governments – have been invested in the development and deployment of V2X technology.<sup>4</sup> The result of U.S. innovation and investment in V2X is now shown through existing and planned deployments around the country. At least 30 states – from Michigan to Pennsylvania to Ohio to Florida – have invested in building out intelligent infrastructure using V2X technology. Two of the country’s largest automakers, General Motors and Ford Motor Company, have deployed or announced plans to deploy these technologies in vehicles in the U.S. market, and, recently, the Alliance for Automotive Innovation announced a commitment to deploy at least five million V2X devices in vehicles and roadway infrastructure over the next five years.<sup>5</sup>

Even as automakers and infrastructure owners and operators move forward with deploying these technologies, V2X innovation continues. In recent years, we have seen the development of new applications and novel use cases that will further advance transportation safety, particularly related to advanced driver assistance systems (ADAS) and automated vehicles (AVs). V2X technologies enable applications that cannot be performed by un-connected AVs, such as communicating with vehicles that are out of line-of-sight, providing road hazard warnings from roadside infrastructure, and allowing AVs to coordinate actions rather than making decisions individually. V2X complements AV sensors by providing information that is more precise, over longer ranges, and in non-line-of-sight conditions.

Unfortunately, since 2013, the FCC has been threatening to repurpose spectrum away from these cutting-edge transportation safety technologies and has now released a NPRM to reduce the spectrum that is available to V2X technologies.<sup>6</sup> The FCC’s proposed rule would reallocate the majority of the 5.9 GHz band away from transportation safety. Numerous technical assessments related to the FCC’s proposal, including preliminary assessments released by USDOT, show that out-of-channel interference from unlicensed devices operating in adjacent bands would be likely to make the spectrum reserved for transportation safety communications unusable for such purposes.<sup>7</sup> This interference would delay or block safety-critical messages where split-second action is required to avert a crash.

The United States has led the world in creating V2X technologies and in developing the standards that enable and support V2X technologies. The FCC’s proposal would cede American leadership as countries around the world are building out their V2X networks. There is no doubt that, if implemented, the NPRM would undercut the public and private investments that have been made in the United States, stifle further innovation, and challenge American global competitiveness. This approach is in direct conflict with efforts underway in other parts of the world. At precisely the same time that other countries are reiterating

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<sup>4</sup> How Connected Vehicles Work, U.S. Department of Transportation. (Feb.27, 2020). Available at <https://www.transportation.gov/research-and-technology/how-connected-vehicles-work>.

<sup>5</sup> Letter from John Bozzella, President and CEO of the Alliance for Automotive Innovation, to the Honorable Elaine Chao, Secretary of Transportation, and the Honorable Ajit Pai, Chairman of the FCC (April 23, 2020). Available at: <https://www.autosinnovate.org/wp-content/uploads/2020/04/Ext.-Comm.-Letter-2020-5.9-GHz-Build-OutCommitment-Letter-April-23-2020-ID-1567.pdf>.

<sup>6</sup> In the Matter of Use of the 5.850-5.925 GHz Band, ET Docket No. 19-138, Notice of Proposed Rulemaking, FCC 19-129 (2019).

<sup>7</sup> USDOT Preliminary Technical Assessment (Dec. 6, 2019). Available at: <https://www.transportation.gov/sites/dot.gov/files/docs/research-and-technology/360181/oobe-energy-59-safetyband-final-120619.pdf>. Comments of Ford Motor Company, ET Docket No. 19-138, at 9 (Mar. 9, 2020).

their commitment to V2X technologies and, in many cases, looking to increase the amount of spectrum that is available to support V2X technologies, the FCC is poised to take action that would all but ensure that these technologies would not realize their full potential in the United States.

The comments and reply comments submitted to the FCC in response to the NPRM overwhelmingly opposed repurposing spectrum away from transportation safety. In fact, more than 85 percent of the commenters opposed the FCC's proposal, including state and city departments of transportation, automakers, vehicle suppliers, technology companies, law enforcement, first responders, safety advocates, engineers, telecommunications companies, the drone industry, and many others. These groups asked the FCC to heed the warnings of USDOT that this plan would not allow sufficient spectrum for V2X to function, threatening the significant safety benefits this technology provides.

We are representative of a broad and diverse group of stakeholders that strongly support preserving the 5.9 GHz safety spectrum band for transportation safety. We ask you to use the Committee's authority over the FCC to direct the Commission to reconsider the approach in the NPRM that reallocates spectrum within the 5.9 GHz band for unlicensed uses. Use of your authority at this critical juncture could save thousands of American lives and hundreds of billions of dollars each year. We look forward to working with you to ensure that the safety, economic, congestion mitigation, environmental, and efficiency benefits that V2X technologies can provide are realized in the United States.

Sincerely,

Intelligent Transportation Society of America  
Alliance for Automotive Innovation

Amateur Radio Emergency Data Network  
America Walks  
American Association of Motor Vehicle Administrators  
American Association of State Highway and Transportation Officials  
American Automobile Association  
American Bus Association  
American Council of Engineering Companies  
American Council of Engineering Companies of Arizona  
American Highway Users Alliance  
American Paramedic Association  
American Public Transportation Association  
American Motorcyclist Association  
American Society of Civil Engineers  
American Traffic Safety Services Association  
American Trucking Associations  
Arizona Society of Professional Engineers  
Center for Auto Safety  
Commercial Vehicle Safety Alliance  
Consumer Reports  
Ergon Asphalt & Emulsions, Inc.  
Governors Highway Safety Association  
Greyhound Lines, Inc.  
Institute of Transportation Engineers  
International Association of Fire Chiefs  
International Municipal Signal Association  
League of American Bicyclists

Maryland Asphalt Association  
Mid-West Truckers Association  
Mothers Against Drunk Driving  
Motor and Equipment Manufacturers Association  
NAFA Fleet Management Association  
National Association of City Transportation Officials  
National Association of State EMS Officials  
National Electrical Manufacturers Association  
National Federation of the Blind  
National Rural Letter Carriers' Association  
National Safety Council  
National School Transportation Association  
National Sheriffs' Association  
National Stone, Sand & Gravel Association  
Potters Industries  
RV Industry Association  
SAE International  
State Farm  
The Paramedic Foundation  
Tire Industry Association  
Truck and Engine Manufacturers Association  
United Motorcoach Association  
Volvo Group North America

cc:

The Honorable Roger Wicker, Chairman, Committee on Commerce, Science, and Transportation (R-MS)  
The Honorable Marsha Blackburn (R-TN)  
The Honorable Roy Blunt (R-MO)  
The Honorable Shelley Moore Capito (R-WV)  
The Honorable Deb Fischer (R-NE)  
The Honorable Cory Gardner (R-CO)  
The Honorable Ron Johnson (R-WI)  
The Honorable Mike Lee (R-UT)  
The Honorable Jerry Moran (R-KS)  
The Honorable Rick Scott (R-FL)  
The Honorable Dan Sullivan (R-AK)  
The Honorable Todd Young (R-IN)

The Honorable Maria Cantwell, Ranking Member, Committee on Commerce, Science, and Transportation (D-WA)  
The Honorable Tammy Baldwin (D-WI)  
The Honorable Richard Blumenthal (D-CT)  
The Honorable Tammy Duckworth (D-IL)  
The Honorable Amy Klobuchar (D-MN)  
The Honorable Ed Markey (D-MA)  
The Honorable Gary Peters (D-MI)  
The Honorable Jacky Rosen (D-NV)  
The Honorable Kyrsten Sinema (D-AZ)  
The Honorable Jon Tester (D-MT)  
The Honorable Tom Udall (D-NM)