September 16, 2020

The Honorable Michael Doyle
Chairman
Communications and Technology Subcommittee
United States House of Representatives
Washington, DC 20515

The Honorable Robert Latta
Ranking Member
Communications and Technology Subcommittee
United States House of Representatives
Washington, DC 20515

Dear Chairman Doyle and Ranking Member Latta:

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, RV and 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) technologies 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 urge you to work with the U.S Department of Transportation (USDOT) and the transportation community to ensure that the 5.9 GHz band is preserved for transportation safety.

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.[1] In addition, 70 percent of crashes involving commercial trucks could be mitigated by V2X technologies, according to 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.[2]

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 USDOT.[3] 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 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.

[1] 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/Press-Releases/ci.nhtsa_v2v_proposed_rule_12132016.print.
[2] Comments of U.S. Department of Transportation, ET Docket No. 19-138, at page 8 (filed Mar. 13, 2020).
[3] Comments of U.S. Department of Transportation, ET Docket No. 19-138, at page 8 (filed Mar. 13, 2020).

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.[4] 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.[5]

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. For these reasons, USDOT has been clear that connected vehicle technology represents "an important input to realizing the full potential benefits and broad-scale implementation of automated vehicles."[6]

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.[7] 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.[8] 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

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[4] 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.

[5] 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-Out-Commitment-Letter-April-23-2020-ID-1567.pdf.

[6] Intelligent Transportation Systems Safety, Federal Highway Administration. Available at https://safety.fhwa.dot.gov/its/.

[7] 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).

[8] 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-safety-band-final-120619.pdf. CAMP LLC Cellular V2X Device-to-Device Communication Consortium: C-V2X Performance Assessment Project Task 8: Assessment of WiFi Interference to C-V2X Communication Based on Proposed FCC 5.9 GHz NPRM (April 15, 2020). Available at: https://pronto-core-cdn.prontomarketing.com/2/wp-content/uploads/sites/2896/2020/04/CAMP-CV2X_Project_Task_8_Final_04242020.pdf

efforts underway in other parts of the world. At precisely the same time that other countries are reiterating 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 work with USDOT and the transportation community to prevent the FCC from reallocating spectrum in the 5.9 GHz band away from transportation safety. Your participation 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, and efficiency benefits that V2X technology can provide are realized in the U.S.

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
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
Transportation for America
Truck and Engine Manufacturers Association
United Motorcoach Association
Volvo Group North America

cc: Members of the House Committee on Energy and Commerce