



Committee on Transportation and Infrastructure  
U.S. House of Representatives  
Washington, DC 20515

Peter A. DeFazio  
Chairman

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Ranking Member

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January 22, 2020

The Honorable Ajit Pai  
Chairman  
Federal Communications Commission  
445 12<sup>th</sup> Street, SW  
Washington, DC 20554

The Honorable Michael O'Rielly  
Commissioner  
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445 12<sup>th</sup> Street, SW  
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The Honorable Brendan Carr  
Commissioner  
Federal Communications Commission  
445 12<sup>th</sup> Street, SW  
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The Honorable Jessica Rosenworcel  
Commissioner  
Federal Communications Commission  
445 12<sup>th</sup> Street, SW  
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The Honorable Geoffrey Starks  
Commissioner  
Federal Communications Commission  
445 12<sup>th</sup> Street, SW  
Washington, DC 20554

Chairman Pai and Commissioners O'Rielly, Carr, Rosenworcel, and Starks:

As Members of the House Committee on Transportation and Infrastructure, we are alarmed by the Federal Communications Commission's (FCC) proposal to reallocate more than half of the 5.9 GHz radio frequency band (or Safety Band) to unlicensed operations, such as Wi-Fi.<sup>1</sup> The FCC's proposal undercuts the potential to prevent many of the 37,000 traffic fatalities each year by impeding the development and deployment of safety-critical technologies.

<sup>1</sup> In the Matter of Use of the 5.850-5.925 GHz Band, FCC 19-129, ET-Docket 19-138 (proposed Dec. 17, 2019), available at <https://docs.fcc.gov/public/attachments/FCC-19-129A1.pdf>.

Secretary Chao wrote to Chairman Pai on November 20, 2019, outlining the Department of Transportation's (DOT) opposition to the FCC's 5.9 GHz Band Notice of Proposed Rulemaking (NPRM), stating "DOT has significant concerns with the Commission's proposal, which represents a major shift in the FCC's regulation of the 5.9 GHz Band and jeopardizes the significant transportation safety benefits that the allocation of this Band was meant to foster."<sup>2</sup> We concur with this statement.

As you know, in 1999, the FCC allocated the 5.9 GHz radio frequency band to dedicated short-range communications (DSRC) for use with intelligent transportation systems (ITS).<sup>3</sup> DSRC enables communication both between vehicles (V2V) and with the surrounding environment (V2I). The benefits of this technology rapidly increase with high scale deployment of vehicle to everything (V2X) technologies and are critical to reducing highway fatalities and saving lives. Beyond the DSRC-based deployments, private sector companies are currently researching and testing Cellular-V2X (C-V2X) technology that also would utilize the 5.9 GHz spectrum. This next generation of cellular communications will allow for enhanced V2X services, particularly for vehicle platooning, advanced driving, extended sensors, and remote driving.

Secretary Chao's letter provides the data that demonstrates the cost in American lives if V2X is undercut, stating "[d]uring 2017, there were over 6 million police-reported vehicle crashes in the U.S. that resulted in 37,133 lives lost, as well as 2,746,000 injuries. These crashes also resulted in economic harm of approximately \$250 billion in direct costs and over \$800 billion when the loss of life, injuries, and other quality of life factors are put into dollars."<sup>4</sup>

To understand the significance of this technology, safety advocates have compared this technology to the next seat belt or airbag in terms of saving lives and opening the door to safer self-driving cars that can effectively look around corners and through buildings.<sup>5</sup>

The support for the safety benefits of V2X technologies is broad and deep. Fifteen organizations representing a broad coalition on highway safety concur with DOT. Their statement (Coalition Statement) says:

"One way to make large, sustained gains in reducing roadway deaths and injuries is through technology, and therefore, we urge you to preserve the 5.9 GHz band for transportation safety. With the tremendous potential to improve transportation safety and the growth in demand for vehicle-to-everything (V2X) services, it is essential that the entire 5.9 GHz band –all seven channels –be retained for V2X, and that all measures are taken to smooth the path for deployment. ... We have the potential to save thousands of lives if the dedicated spectrum is maintained for its original use. In order to accelerate the deployment of new life-saving

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<sup>2</sup> Letter from Hon. Elaine Chao, Secretary, DOT, to Hon. Ajit Pai, Chairman, FCC (Nov. 20, 2019), available at <https://www.highways.org/wp-content/uploads/2019/12/sec-chao-letter-5.9-11-20-19.pdf>, [hereinafter *DOT Letter to FCC*].

<sup>3</sup> 47 C.F.R. § 2.106 (1999); see also *Dedicated Short Range Communications of Intelligent Transportation Services*, 64 Fed. Reg. 66,405 (Nov. 26, 1999).

<sup>4</sup> DOT Letter to FCC, *supra* note 2, at 1.

<sup>5</sup> Jeff Plungis, *Airwaves for vehicle communication might be unlocked for WiFi endangering V2X projects aimed at reducing highway fatalities*, CONSUMER REPORTS, Dec. 11, 2019, available at <https://www.consumerreports.org/car-safety/fcc-plan-could-stall-v2x-car-safety-revolution>.

technologies, we urge you and your colleagues to maintain the entire 5.9 GHz band for transportation safety.”<sup>6</sup>

Let us assure you, we rarely see this kind of broad support.

According to the most recently available information of planned and operational V2X deployments from DOT, there are 97 deployments of V2X communications utilizing the 5.9 GHz band, 18,877 vehicles with aftermarket V2X communications devices, and 8,098 infrastructure V2X devices installed at the roadside.<sup>7</sup> Furthermore, all seven channels in the 5.9 GHz band are actively utilized in these deployments.<sup>8</sup> V2X deployments are already supporting platforms related to warnings against red-light violations, reduced speed and work zone areas, and location-specific weather impacts.

While the FCC has expressed concern with the slow pace of development and deployment of vehicle safety technologies in the 5.9 GHz band, the FCC’s recent actions have only exacerbated the problem and upended any progress being made. On December 19, 2019, the FCC announced a temporary freeze on acceptance and processing of 5.9 GHz license applications.<sup>9</sup> Additionally, the Committee understands that the FCC has been sitting on approximately 500 applications for DSRC Roadside Unit licenses. The Committee remains deeply concerned with how the FCC’s actions have continued to create uncertainty for the private sector that this band will not be available in the future.

The Joint Auto Alliance-Global Automakers statement demonstrates the uncertainty the FCC has created, stating:

“The pending action by the FCC risks lives, slows innovation and runs counter to what the Commission has heard from safety and technical experts. The FCC must consider the significant investment of public and private dollars in V2X deployments and the adverse economic and safety consequences of reallocating the 5.9 GHz safety spectrum to unlicensed technologies ... A flexible plan for using the safety spectrum is needed to promote innovation and accelerate deployment of life-saving transportation technology. The auto industry is ready

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<sup>6</sup> Letter from Coalition, to Hon. Ajit Pai, Chairman, FCC (Oct. 28, 2019), *available at* <https://advocacy.consumerreports.org/wp-content/uploads/2019/12/Safety-Groups-Letter-to-FCC-on-5.9-GHz-Band.pdf>. This statement was signed by AAA, Advocates for Highway and Auto Safety, American Association of Motor Vehicle Administrators, American Association of State Highway and Transportation Officials, Center for Auto Safety, Consumer Reports, Governors Highway Safety Association, Insurance Institute for Highway Safety, International Association of Fire Chiefs, Institute of Transportation Engineers, MADD, National Association of State EMS Officials, National Safety Council, National Sheriffs’ Association, and Safe Kids Worldwide.

<sup>7</sup> Operational Connected Vehicle Deployments in the U.S., DOT, *available at* <https://www.transportation.gov/research-and-technology/operational-connected-vehicle-deployments-us>.

<sup>8</sup> Preparing for the Future of Transportation, Automated Vehicles 3.0, DOT (Oct. 2018), *available at* <https://www.transportation.gov/sites/dot.gov/files/docs/policy-initiatives/automated-vehicles/320711/preparing-future-transportation-automated-vehicle-30.pdf>.

<sup>9</sup> Wireless Telecommunications Bureau Seeks Comment on New York University Petition for Declaratory Ruling Regarding Amateur Radio Communications, Public Notice, WT Docket No. 16-239, FCC (Nov. 1, 2019), *available at* <https://docs.fcc.gov/public/attachments/DA-19-1298A1.pdf>.

to deploy V2X technologies using the full 75 MHz to save lives, reduce congestion and help the environment.”<sup>10</sup>

The American Trucking Associations concur stating:

“Because of its importance to highway safety, ATA strongly believes that all 75 MHz of the 5.9 GHz Safety Spectrum should remain protected for connected vehicle technology. We are disappointed that the FCC appears poised to cut into that spectrum for other purposes. With more than 36,000 people in 2018 losing their lives in traffic fatalities, it is inconceivable and unacceptable that the FCC would consider slashing available transportation safety spectrum; which could have the greatest impact in reducing traffic fatalities moving forward. We urge the commissioners not to proceed with this proposal and to prioritize transportation safety over faster Wi-Fi.”<sup>11</sup>

The joint Auto Alliance-Global Automakers statement also notes that the FCC is providing additional spectrum bands, including the 6 GHz band for unlicensed technologies.<sup>12</sup> We question why the FCC feels compelled to strip away much of the 75 MHz of this 5.9 GHz band, while also providing 1,200 MHz of spectrum in the 6 GHz band for unlicensed uses, such as Wi-Fi.

In addition, the Coalition Statement expressed concerns about the FCC’s NPRM and its proposal to share V2X communications with unlicensed devices, such as Wi-Fi, in the Safety Band: “Sharing or rechanneling the 5.9 GHz band could nullify progress already made, unnecessarily delay implementation, devalue prior 5.9 GHz technology investment, and most importantly could lead to the unnecessary loss of lives.”<sup>13</sup>

In December 2019, the National Highway Traffic Safety Administration (NHTSA) released a research report which affirmed this concern.<sup>14</sup> The NHTSA report concluded that “re-channelization” of the Safety Band, which would allow non-safety Wi-Fi signals to be broadcast in one part of the 5.9 GHz band, showed the potential for harmful interference with V2X safety messages in the remaining parts of the Safety Band.<sup>15</sup> Additionally, a preliminary technical assessment conducted by DOT confirmed that the FCC’s NPRM would cause significant interference.<sup>16</sup> Such interference would question the reliability of V2X communications, and reduce or even eliminate the safety benefits that V2X technologies offer.

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<sup>10</sup> Statement of Joint Auto Alliance-Global Automakers on 5.9 GHz Safety Spectrum, *available at* <https://www.globalautomakers.org/Press%20Release%20-%202019%20-%20Joint%20Alliance-AGA-%205.9%20Statement%2012-12-19.pdf>.

<sup>11</sup> *The Safety Spectrum: Human Lives Must Come Before Faster WiFi*, AMERICAN TRUCKING BLOG, Dec. 9, 2019, *available at* <https://medium.com/trucking/the-safety-spectrum-human-lives-must-come-before-faster-wifi-68720fd696c4>.

<sup>12</sup> *Id.* at 7.

<sup>13</sup> *Id.* at 4.

<sup>14</sup> DOT, NHTSA, VEHICLE-TO-VEHICLE COMMUNICATIONS RESEARCH PROJECT (V2V-CR), PRE-FINAL VERSION, (Dec. 2019), *available at* [https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/v2v-cr\\_dsrc\\_wifi\\_baseline\\_cross-channel\\_interference\\_test\\_report\\_pre\\_final\\_dec\\_2019-121219-v1-tag.pdf](https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/v2v-cr_dsrc_wifi_baseline_cross-channel_interference_test_report_pre_final_dec_2019-121219-v1-tag.pdf).

<sup>15</sup> *Id.*

<sup>16</sup> DOT, SPECTRUM TEAM, 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>.

In 2015, Congress affirmed its commitment to seeing more widespread deployment of ITS through the creation of an Advanced Transportation Technologies Deployment program and expanded eligibility of these systems for Federal investment.<sup>17</sup> We have made the adoption of technology in our transportation system a key priority and expect to take further steps in the upcoming surface transportation reauthorization to encourage greater use of ITS throughout our system. Removal of this dedicated spectrum would be counter to our national transportation policy goals, as affirmed by the DOT and the Congress with the passage of the FAST Act in 2015.

Finally, we want to firmly align ourselves with the concluding remarks of Secretary Chao's letter to Chairman Pai – “In light of these concerns, the Department’s view is that the NPRM, and the substantial shift in the direction that it represents, is insufficiently grounded.”

The Committee has substantial concerns with the NPRM. For these reasons noted above, we urge the FCC to reconsider the approach in the NPRM that reallocates spectrum within the 5.9 GHz band for unlicensed uses, such as Wi-Fi. In particular, there remain serious outstanding questions about the potential implications of this approach that could significantly undermine safety benefits to the driving public.

Thank you for your consideration and attention to this matter, and we look forward to working with you to continue promoting the safety of our transportation system.

Sincerely,




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Peter A. DeFazio  
Chair




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Sam Graves  
Ranking Member



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Eleanor Holmes Norton  
Member of Congress




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Don Young  
Member of Congress



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Eddie Bernice Johnson  
Member of Congress




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Bob Gibbs  
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Rick Larsen  
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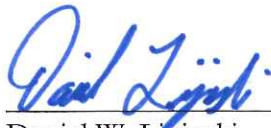


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David Rouzer  
Member of Congress

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<sup>17</sup> Fixing America’s Surface Transportation Act, (P.L. 114-94).



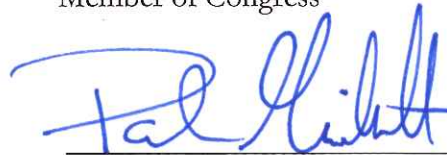
Daniel W. Lipinski  
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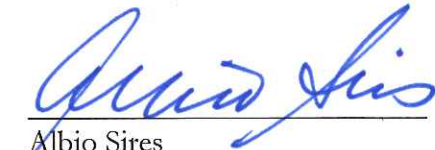
Doug LaMalfa  
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Paul Mitchell  
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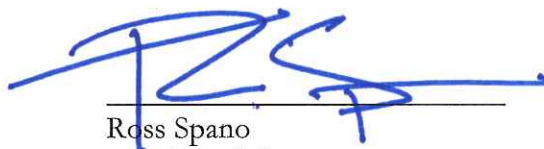
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Jesus G. "Chuy" Garcia

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Harley Rouda

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cc:

The Honorable Elaine Chao, Secretary, U.S. Department of Transportation