

November 28, 2018

VIA ECFS

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

Re: Office of Engineering and Technology Requests Comment On Phase I Testing of Prototype U-NII-4 Devices, ET Docket No. 13-49

Dear Ms. Dortch:

The Intelligent Transportation Society of America (“ITS America”) hereby submits its Comments on the *Public Notice* regarding the Phase I Test Report evaluating potential sharing solutions between the Unlicensed National Information Infrastructure (“U-NII”) devices and Dedicated Short Range Communications (“DSRC”) operations in the 5.85-5.925 GHz band (“5.9 GHz Band”).¹ The 5.9 GHz Band is used by the Intelligent Transportation Systems (“ITS”) Radio Service under Subpart M of Part 90 of the Federal Communication Commission’s (“FCC” or “Commission”) Rules.²

In the *Public Notice*, the Office of Engineering and Technology (“OET”) reports that its Phase I testing of prototype U-NII devices reliably detected DSRC signals under two potential band sharing proposals— the first employing a “detect and avoid” protocol and the second employing a band segmentation of 45 MHz/30 MHz. OET requests comment on its Report. In addition, OET invites comment on other factors,³ including the introduction of new technologies for autonomous vehicles, the evolution of Wi-Fi standards, and the development of cellular vehicle-to-everything (“C-V2X”) technology.

ITS America has been an active participant before the FCC on matters concerning the development of life saving ITS systems and technologies. In 1997, ITS America petitioned the FCC to allocate the 5.9 GHz Band to DSRC. When the Commission made its visionary decision allocating the 5.9 GHz Band to ITS, it recognized both that the development of a national ITS architecture capturing the life saving capabilities of emerging technologies was a national priority and that such an effort required a

¹ *Office of Engineering and Technology Requests Comment on Phase I Testing of Prototype U-NII-4 Devices, Public Notice*, DA 18-1111 (Oct. 29, 2018) (“*Public Notice*”).

² 47 C.F.R. §§ 90.350 – 90.383.

³ OET specifically notes “other factors” as “including the introduction of new technologies for autonomous vehicles, the evolution of Wi-Fi standards, the development of cellular vehicle-to-everything (“C-V2X”) technology, and the limited deployment of DSRC in discrete circumstances.” *Public Notice* at 2.

long term commitment by both the public and private sectors.⁴ ITS America, its members, the US Department of Transportation (“US DOT”), and others worked with the Commission to develop the appropriate licensing and service rules for DSRC in the 5.9 GHz Band and the Commission reaffirmed its partnership in this effort when service rules were adopted in 2004.⁵ At the Commission’s direction, ITS America, along with the American Association of State Transportation Officials and the Satellite Industry Association worked together to successfully develop a spectrum sharing protocol between DSRC and Fixed Satellite Earth stations operating in the 5.9 GHz Band.⁶

Since that time, ITS America has played a key role in facilitating the development and deployment of DSRC equipment, services, and applications, in partnership with the US DOT, state DOTs, and its many private sector, academic and other members. ITS America members Qualcomm and Cisco both submitted prototypes to examine the two sharing proposals designated as “Detect and Vacate” (aka detect and avoid) and the “Re-Channelization” interference mitigation strategies.

In its Comments on OET’s June 1, 2016 *Public Notice* outlining the proposed three stage test plan, ITS America indicated its support for sharing the 5.9 GHz Band between ITS and U-NII devices, provided that testing determined that such devices would not cause harmful interference to ITS services. Since then, and despite the regulatory uncertainty regarding band sharing overhanging the 5.9 GHz Band since 2012, both the public and private sector have continued investing in the development and deployment of 5.9 GHz Band ITS services. Among other things, as the Commission is aware, ITS America board members Toyota and General Motors have made landmark commitments to the deployment of Vehicle-to-Everything (V2X) DSRC-equipped vehicles.

In its 2018 revision of its Automated Vehicle Policy, the US DOT reported that throughout the Nation there are over “70 active deployments of V2X communications utilizing the 5.9 GHz Band. US DOT currently estimates that by the end of 2018, over 18,000 vehicles will be deployed with aftermarket V2X communications devices and over 1,000 infrastructure V2X devices will be installed at the roadside.”⁷ The Coalition for Safety Sooner, a group of 17 road infrastructure owners and operators, most of which are ITS America members, reported that deployments can be found in 26 states, with a wide variety of vehicle-to-infrastructure (V2I) operational and deployments that are funded and underway.

ITS America has been at the center of the continued development of V2X technology. In addition, as the *Public Notice* acknowledges, C-V2X proponents have spent considerable resources and energy in developing a Long-Term Evolution (“LTE”) based V2X solution. To this end, the 5G Automotive Association (“5GAA”) recently submitted a “Petition For Waiver” seeking to deploy C-V2X technology in

⁴ *Amendment of Parts 2 and 90 of the Commission’s Rules to Allocate the 5.850-5.925 GHz Band to the Mobile Service for Dedicated Short Range Communications of Intelligent Transportation Services*, ET Docket No. 98-95, Report and Order, 14 FCC Rcd 18221 (1999).

⁵ *Amendment of the Commission’s Rules Regarding Dedicated Short-Range Communication Services in the 5.850-5.925 GHz Band (5.9 GHz Band)*, WT Docket No. 01-90, Report and Order, 19 FCC Rcd 2458 (2004).

⁶ See Attachment to Letter from Carlos M. Nalda, Counsel to Satellite Industry Association, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 01-90 and EB Docket No. 98-95 (Feb. 18, 2008).

⁷ U.S. Dep’t of Transp., *Preparing for the Future of Transp.* at 14 (2018).

the 5.9 GHz Band.⁸ ITS America is examining 5GAA's Petition and will comment further on any issues raised by that Petition at the appropriate time. The resources and commitment of these parties, to utilize the 5.9 GHz Band for further deployment of life saving ITS, cannot be doubted. All of these public sector and private industry efforts contrast starkly with recent mischaracterizations of the Band as having failed or been abandoned.

ITS America appreciates the efforts expended by OET in developing and executing Phase I of its test plan, and in issuing its Report. ITS America does not believe that the Phase I Test Report provides an adequate basis for any action other than a continuation of testing as planned. OET's Peer Review Memorandum identifies a number of areas for which further testing is necessary.⁹

ITS America does not support any deviation from the Test Plan to a collateral proceeding examining other outcomes. There is no basis for exploring a band reallocation that would disrupt incumbent users, deter the deployment of life saving systems, delay the development of new and emerging technologies, and otherwise penalize public and private sector interests that have dedicated their scarce resources to improving the safety of our public transportation network.

According to the Centers for Disease Control and Prevention (CDC), about 90 people die each day in the United States from crashes, resulting in the highest death rate among comparison countries. If U.S. crash deaths equaled the average rate of 19 other high-income countries, more than 18,000 lives could be saved each year.¹⁰ Now is the time for the Commission to act decisively to protect the investment in dedicated V2X short-range communications at 5.9 GHz as the technology is being deployed en-masse.

Sincerely,

/s/ Steven H. Bayless
Steven H. Bayless
Vice President Public Policy and Regulatory
Affairs
Intelligent Transportation Society of America

⁸ 5G Automotive Association Petition For Waiver to Allow Deployment of Intelligent Transportation System Cellular Vehicle to Everything (C-V2X) Technology, ET Docket No. ___ (filed Nov. 21, 2018).

⁹ See Memorandum from Sankar Persaud, FCC International Bureau, Tim Maguire, FCC Wireless Telecommunications Bureau, Neal McNeil, FCC Enforcement Bureau, Robert Pavlak, FCC Office of Engineering and Technology to Rashmi Doshi, Chief, Laboratory Division, FCC Office of Engineering and Technology (Mar. 12, 2018).

¹⁰ Motor Vehicle Crash Deaths, *Vital Signs* (July 18, 2016), <https://www.cdc.gov/vitalsigns/motor-vehicle-safety/index.html>.