

March 18, 2019

VIA ECFS

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

Re: Unlicensed Use of the 6 GHz Band, ET Docket No. 18-295

Dear Ms. Dortch:

The Intelligent Transportation Society of America (“ITS America”) hereby submits its Reply to the Comments filed in response to the Notice of Proposed Rulemaking (“NPRM”) released by the Federal Communications Commission (“FCC” or “Commission”) in ET Docket No. 18-295.¹ The FCC’s NPRM proposes to allow unlicensed use in the 5.925-7.125 GHz (6 GHz) band with the objective of “ensuring that the licensed services operating in the spectrum continue to thrive.”²

ITS America agrees with the Commenters that have observed that the spectrum proposed in the 6 GHz band provides a much more suitable and robust capability for U-NII devices than would the 5.85-5.925 GHz (“5.9 GHz”) band currently the subject of testing by the FCC’s Office of Engineering and Technology.³ ITS America urges that the Commission also ensure that traffic safety applications, especially ones that support vehicle-, infrastructure-, and pedestrian-based safety-of-life and public safety services in reference to intelligent transportation system (“ITS”) operations in the adjacent 5.9 GHz band be free of harmful emissions from the 6 GHz band. As shown in the Comments, such protection from unwanted out-of-band emissions is critical for public and private sector parties that are investing in and deploying both Dedicated Short Range Communications (“DSRC”) and Cellular Vehicle to Everything (“C-V2X”) systems.⁴

To this end, ITS America member Toyota Motor Corporation (“Toyota”) notes that harmful interference from unlicensed devices in the 6 GHz band may adversely affect critical safety of life communications in the immediately adjacent 5.9 GHz band.⁵ ITS America concurs with Toyota’s request that because of the potential for harmful interference to ITS operations, the Commission should reject any proposal that seeks to increase the out-of-band emissions level beyond the -27 dBm/MHz proposed in the NPRM.

¹ *Unlicensed Use of the 6 GHz Band*, ET Docket No. 18-295, Notice of Proposed Rulemaking, 33 FCC Rcd 10496 (2018) (“NPRM”).

² *Id.* at 10497.

³ Comments of 5G Automotive Association, ET Docket No. 18-295, at 2 (Feb. 15, 2019) (“5GAA”); Comments of Volkswagen Group of America, ET Docket No. 18-295 (Feb. 15, 2019) (“Volkswagen”).

⁴ Comments of Qualcomm, Inc., ET Docket No. 18-295, at 12-13 (Feb. 15, 2019) (“Qualcomm”).

⁵ Comments of Toyota Motor Corporation, ET Docket No. 18-295, at 3 (Feb. 15, 2019) (“Toyota”).

ITS America concurs with the Comments submitted by ITS America member Qualcomm, Inc. (“Qualcomm”), the 5G Automotive Association (“5GAA”), member Volkswagen Group of America (“Volkswagen”), and others that the Commission was prudent to set the out-of-band emission limit of wireless devices operating in the 6 GHz band at an EIRP of -27 dBm/MHz, to remain consistent with the rules that apply to most of the other U-NII bands.⁶ The Comments show that the out-of-band emission limit proposed by the Commission will allow unlicensed use of the 6 GHz band, while at the same time protecting ITS operations in the adjacent 5.9 GHz band. Qualcomm also notes that without the proposed emissions limit, unlicensed operations may “significantly degrade ITS safety-of-life operations.”⁷ 5GAA observes that any unlicensed operations in the 6 GHz band must protect “future [Cellular Vehicle-to-Everything] and other ITS operations in the 5.9 GHz band.”⁸ Toyota Motor Corporation (“Toyota”) notes that DSRC is deployed across the United States in thousands of vehicles and roadside units and urges the Commission to ensure that any unlicensed use of spectrum adjacent to the 5.9 GHz Band protect incumbent DSRC operations from harmful interference.⁹

Lastly, ITS America cautions that aforementioned limits may need to be revisited based upon any changes in class of devices and/or sub-band designations relative to the proposal in the NPRM. Based on comments received from unlicensed interests, ITS America understands that there may in the future be more precisely defined distinctions made between different classes of unlicensed devices in 6GHz, such as indoor/outdoor, or fixed or portable, use of automated frequency control (AFC) etc., by proposed UNII sub-band. In particular, in reference to indoor/outdoor operations, ITS America member Cisco Systems, Inc. (“Cisco”), for example, suggests that low power indoor operations in all the 6 GHz sub-bands should be allowed, for example. Qualcomm suggests that “OOBE from outdoor unlicensed operations in the lower portion of the proposed U-NII-5 band,” specifically, could “significantly degrade ITS safety-of-life operations.” Furthermore, there are some other transportation related operations that may be impacted by changes. In particular, member Sirius XM Radio Inc. (“Sirius XM”) relies on the 7025-7075 MHz band as the sole feeder link spectrum that it is licensed to use to provide satellite digital audio radio service (“SDARS”) to over 33.5 million U.S. customers, a large portion of whom rely on it to provide critical road weather and traffic services, and may in the future also rely on it to provide complementary services to support vehicle-to-x (“V2X”) communications.¹⁰

⁶ NPRM at 10525.

⁷ Comments of Qualcomm at 14.

⁸ Comments of 5GAA at 4.

⁹ Comments of Toyota at 2.

¹⁰ Letter from Karis Hastings, Counsel for Sirius XM Radio, Inc., to Marlene H. Dortch, Secretary, Federal Communications Commission, GN Docket No. 17-183 (dated June 22, 2018).

Because of the diversity of needs and designs, ITS America believes it would be wise for the Commission to re-evaluate the impact to radio services that provide traffic safety. In particular, the Commission should be wary of the potential impact to 5.9 GHz intelligent transportation system ("ITS") operations in the adjacent 5.9 GHz band that support V2X safety-of-life and public safety applications.

Sincerely,

/s/ Steven H. Bayless

Steven H. Bayless

Vice President, Public Policy and Regulatory Affairs

Intelligent Transportation Society of America