

December 13, 2018

VIA ECFS

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

**Re: Reply Comments to 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 brief Reply 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") that support Vehicle-to-Everything ("V2X") Technology.<sup>1</sup>

The Comments confirm significant investment and deployment in the 5.9 GHz Band by both public and private sector. For example, Cisco Systems, Inc. ("Cisco") notes that the DSRC market is "developing rapidly" and that state transportation officials are increasingly interested in deploying radio-based solutions outside the three sites established by the United States Department of Transportation to develop applications for V2X technology.<sup>2</sup> Panasonic Corporation of North America ("Panasonic") notes that in conjunction with the Colorado Department of Transportation, it has built a connected transportation program utilizing V2X technology that enables the real-time sharing of data from vehicles, infrastructure and people to improve safety and mobility on the road.<sup>3</sup> General Motors Company ("General Motors") notes that it currently deploys DSRC-based V2V technology in one Cadillac vehicle model and will deploy DSRC-based technology in all Cadillac models after 2023. The DSRC-based technology used by General Motors utilizes the entire 5.9 GHz Band in order to bring next-generation automotive safety to drivers and their passengers.<sup>4</sup> Toyota Motor Corporation ("Toyota") emphasizes that it plans to deploy DSRC-enabled vehicles in the United States and that its commitment builds upon

---

<sup>1</sup> *Office of Engineering and Technology Requests Comment on Phase I Testing of Prototype U-NII-4 Devices, Public Notice*, DA 18-1111 (rel. Oct. 29, 2018) ("Public Notice").

<sup>2</sup> Comments of Cisco Systems, Inc., ET Docket No. 13-49, at 9 (Nov. 28, 2018) ("Cisco Comments").

<sup>3</sup> Comments of Panasonic Corporation of North America, ET Docket No. 13-49, at 4 (Nov. 28, 2018) ("Panasonic Comments").

<sup>4</sup> Comments of General Motors Company, ET Docket No. 13-49, at 2 (Nov. 28, 2018) ("General Motors Comments").

“significant investment” by transportation departments across the United States. Toyota notes that thousands of roadside units in dozens of states utilize all seven DSRC channels to support critical public safety applications.<sup>5</sup>

In its Comments, NCTA-The Internet & Television Association (“NCTA”) argues that the Commission should terminate its plans for Phase II and Phase III testing and simply proceed directly to a Further Notice of Proposed Rulemaking with the ultimate objective of removing the allocation of the 5.9 GHz Band for Intelligent Transportation Systems (“ITS”). To this end, NCTA describes DSRC as a “failed technology – stuck in the pilot project stage, even after twenty years of government subsidy.”<sup>6</sup> With this statement, NCTA has revealed its utter lack of understanding of both the actual state of development of DSRC and, even more importantly, of the complexity involved in developing and deploying an ITS architecture in the United States’ national transportation network. The United States Department of Transportation fully understands this challenge and specifically affirmed its support to the 5.9 GHz Band in its recently released Automated Vehicles 3.0 (“AV 3.0”) policy guidance, stating that the “Department encourages the automotive industry, wireless technology companies, IOOs [infrastructure owners and operators], and other stakeholders to continue developing technologies that leverage the 5.9 GHz spectrum for transportation safety benefits.”<sup>7</sup>

The FCC’s decision to allocate the 5.9 GHz Band to Intelligent Transportation was visionary—a wireless interoperable network that connects all cars, buses, trucks, motorcycles, bikes, pedestrians and traffic signals to reduce congestion and save lives. As hoped,<sup>8</sup> that decision spurred the investment and energies of both the public and private sectors in developing needed standards, prototypes, testing and in deploying infrastructure and vehicle systems. Without that decision, the state of development of life saving transportation technologies relying upon wireless communications would be far behind where it is today, and the United States would be far behind global developments. ITS America rejects NCTA’s attempt to stigmatize public and private sector parties that have expended their scarce resources to improve transportation safety and save lives.

This is not lost on respondents. Toyota argues “Despite attempts to discredit or devalue DSRC technology by some lacking any experience with or commitment to automotive safety, DSRC continues to have widespread support of a broad coalition of automakers, the US Department of Transportation, state and local transportation departments, safety advocates and other stakeholders for its potential to increase safety and reduce crashes. The reality is that DSRC is a proven, reliable and mature technology that is moving forward in the United States.”<sup>9</sup> General Motors’ comments back Toyota’s assessment. For GM, “At this time, DSRC based V2X remains the only proven technology solution...”<sup>10</sup>

---

<sup>5</sup> Comments of Toyota Motor Corporation, ET Docket No. 13-49, at 18 (Nov. 28, 2018) (Toyota Comments”).

<sup>6</sup> Comments of NCTA-The Internet and Television Association, ET Docket No. 13-49, at 13 (Nov. 28, 2018) (“NCTA Comments”).

<sup>7</sup> U.S. Department of Transportation, *Automated Vehicles 3.0: Preparing for the Future of Transportation* 16 (Oct. 2018), <https://www.transportation.gov/av/3>.

<sup>8</sup> Petition of the Intelligent Transportation Society of America for Amendment of the Commission’s Rules to Add Intelligent Transportation Services (ITS) as a New Mobile Service With Co-Primary Status in the 5.850-5.925 GHz Band, Petition for Rulemaking, RM-9096, at 8 (May 19, 1997).

<sup>9</sup> Toyota Comments, at 2.

<sup>10</sup> “General Motors Comments, at 3.

NCTA further suggests that cellular V2X (“C-V2X”) technology could use commercial cellular LTE/5G bands, which the advocates and developers of C-V2X have declined to propose as a viable alternative to 5.9GHz dedicated safety spectrum. NCTA’s contention, that DSRC is somehow no longer needed due to the development of other safety-related sensors, is not a claim shared by experts in the field of automotive safety. Toyota argues “Sensor based technology has not leapfrogged or superseded the need for communication between vehicles..”<sup>11</sup> Volvo Group North America (“Volvo”) cites “DSRC is a necessary component of our vehicle automation plans.”<sup>12</sup>

ITS America agrees with NCTA that “both the automotive and broadband sectors need regulatory certainty about spectrum availability.”<sup>13</sup> As noted in our Comments, the deployment of DSRC and development of C-V2X is occurring despite the regulatory uncertainty created by this proceeding, NCTA and its supporters for over five years. NCTA should also of course be aware that the development of wireless systems may take some time, even for consumer technologies that are not engineered to be highly fault tolerant and mission- or safety-critical. For example, although the Commission allocated the 900 MHz, 2.4 GHz and 5.8 GHz bands for use by unlicensed devices in 1989, the first Wi-Fi standard was not finalized until 1997 and it took many years before it became ubiquitous in personal computers and much later in consumer mobile devices, despite the dramatic changes overall.

Three years ago, NCTA joined a recommendation to the Commission and the Departments of Transportation and Commerce that the “testing of various 5.9 GHz unlicensed sharing proposals should be conducted in a way that allows test proposals, results, and underlying data to be meaningfully compared and evaluated.”<sup>14</sup> The US Department of Transportation noted that “all the three phases of the test plan are interdependent” and that “... all three phases of the FCC test plan be completed before reaching any conclusions as to whether unlicensed devices can safely operate in the 5.9GHz Band.”<sup>15</sup> Cutting short the planned three phase testing protocol, one endorsed by the Commission and the Departments of Transportation and Commerce, will not allow for meaningful evaluation of band sharing.

---

<sup>11</sup> Toyota Comments , at 16.

<sup>12</sup> Comments of Volvo Group North America, ET Docket No. 13-49, at 1. (Nov. 28, 2018) (“Volvo Comments”).

<sup>13</sup> NCTA Comments, at 15.

<sup>14</sup> NCTA, Auto Alliance, Global Automakers, Intelsat, Qualcomm and SES Letter to the Secretaries of Transportation, Commerce and the Chairman of the Federal Communications Commission, September 9, 2015

<sup>15</sup> US Department of Transportation’s National Highway Traffic Safety Administration issues a statement on safety value of 5.9Ghz spectrum, October 14, 2018

ITS America, along with the Alliance of Automobile Manufacturers (“Auto Alliance”), the Association of Global Automakers (“Global Automakers”) and Denso International America (“Denso”), among others, have been supportive of the ongoing effort to develop and test the “detect and vacate” strategy. In our view, band rechannelization would destroy years of investment and would also lose “many potentially life-saving applications.”<sup>16</sup>

For the past five years, ITS America has expressed its support for sharing of the 5.9 GHz Band if testing demonstrates that sharing will not cause harmful interference to intelligent transportation systems. ITS America urges the Commission to stay the course that was agreed upon previously by the parties, including NCTA, and complete the testing as planned.

Sincerely,

/s/ Steven H. Bayless

Steven H. Bayless

Vice President Public Policy and Regulatory Affairs

Intelligent Transportation Society of America

---

<sup>16</sup> Comments of the Alliance of Automobile Manufacturers, Association of Global Automakers, Intelligent Transportation Society of America, and DENSO International America, Inc. ET Docket No. 13-49 at 26-27 (Filed July 7, 2016)