Maryann L. Combs
Vice President
Global Vehicle Safety

General Motors Company
MC: 480-210-2V
29427 Louis Chevrolet Rd.
Warren, MI 48093-2350

USG 4813
25 February 2019

Mr. Sujeesh Kurup,
Department of Transportation
Washington, DC 20590

Re: Request for Comments (Docket No. DOT-OST-2018-0210)

Dear Mr. Kurup:

General Motors ("GM") respectfully submits these comments in response to the Request for Comments (RFC), referenced above. The Department of Transportation (DOT) is seeking comments on recent developments in core communications technologies and how these developments impact V2X and the DOT's role in the integration of V2X technology.

GM is committed to a future of zero crashes, zero emissions, and zero congestion. As part of this vision, GM has made significant investments and advances in Vehicle- to-Vehicle (V2V) and Vehicle-to-Everything (V2X) technologies, which have great potential to enhance road safety and save thousands of lives. According to the National Highway Traffic Safety Administration (NHTSA), there were 37,133 deaths in automobile crashes on U.S. roadways in 2017. Continued development and deployment of vehicle-connectivity technology like V2X and other safety innovations could help to eliminate many of the crashes causing this tragic loss of life.

V2X technology provides direct, dedicated and cooperative communications amongst roadway users and offers opportunities to improve transportation safety and mobility. Recognizing its lifesaving potential, the FCC dedicated the 5.9 GHz spectrum band to transportation-safety communications technology. The spectrum should remain dedicated to the development and deployment of this technology to further transportation safety and mobility purposes.

GM was first to deliver V2V-enabled vehicles in the U.S. market when it launched V2V capabilities utilizing Dedicated Short-Range Communications (DSRC) on the Cadillac CTS in 2017. In 2018, GM announced it will build V2X on-board units into a high-volume Cadillac crossover beginning in 2023, and expand the deployment to all Cadillac models thereafter. GM's planned expansion of V2X communications to all Cadillac vehicles underscores the importance of ensuring that automakers have access to spectrum sufficient to support their growing connected vehicle-safety technologies.

V2X technology can provide communications not only between vehicles on the road (e.g., passenger cars to heavy-duty trucks to motorcycles) but also between vehicles and the roadway infrastructure, and others sharing the roadway, (e.g., bicycles and pedestrians) bringing next-generation automotive safety to virtually everyone using our roads. GM has committed to continuing to deploy V2V on its vehicles and to encourage widespread V2X deployment

throughout the industry to promote safety. It is understood that the more vehicles that deploy an interoperable V2X connectivity technology, the more effective the system can be, and the more crashes that can be avoided.

In addition, as documented by the Department of Transportation in its publication "*Preparing for the Future of Transportation,*" over 200 infrastructure communications devices have already been deployed, with over 2,100 additional deployments planned by 2020 in 26 states and 45 cities. Today, lifesaving technology is already using the dedicated 5.9 GHz band, and the entire band is necessary for the future development and deployment of these transportation-safety technologies.

Although DSRC has demonstrated the technical capability to support these uses and applications, more recent work on Cellular Vehicle to Everything (C-V2X) technology also holds promise as a potential alternative solution. GM supports measures to enable further study and development of C-V2X. However, any permanent changes to the FCC's Rule & Order should only be considered after the development of C-V2X demonstrates supplementary or improved benefits to the already-established capabilities and readiness of DSRC.[1]

Ultimately, the stakeholders, including vehicle manufacturers and appropriate Federal, state and local agencies, should decide which transportation safety technology is the best path forward in the U.S. Regardless of which technology is utilized, the entire 5.9 GHz band is necessary for effective transportation safety and should remain dedicated for vehicle safety.

GM appreciates the opportunity to comment on the DOT's role in the deployment of V2X technology. GM is continuing to develop responses to the specific questions raised in the RFC, and looks forward to continued dialogue with the DOT on these topics. Please do not hesitate to contact me or our Washington, D.C. office for any questions or to schedule an in-person meeting.

Sincerely,

Maryann L Combs

Maryann L. Combs,
Vice President
Global Vehicle Safety

cc: Docket No. DOT-OST-2018-0210

---

1 *See Federal Motor Vehicle Safety Standards*, Notice of Proposed Rulemaking, 82 Fed. Reg. 3854, 3860 (2017).