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**Comments of the**  
**Motor & Equipment Manufacturers Association (MEMA)**  
**to**  
**Federal Communications Commission**  
**RE: Use of the 5.850-5.925 GHz Band**  
**ET Docket No. 19-138; FCC 20-164; FRS 17508**  
**June 2, 2021**

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The Motor & Equipment Manufacturers Association (MEMA) submits these comments in response to the Further Notice of Proposed Rulemaking (FNPRM) adopted by the Federal Communications Commission (FCC or Commission) to finalize the restructuring of the 5.9 GHz band.

**I. MEMA Members' Interest in this Proceeding**

MEMA represents over 1,000 motor vehicle suppliers that manufacture and remanufacture components and systems for use in passenger cars and heavy trucks.<sup>1</sup> MEMA members produce original equipment (OE) components, systems, and materials for new vehicles, as well as aftermarket parts to service, maintain and repair vehicles on the road.

Motor vehicle parts manufacturers are the nation's largest manufacturing sector committed to improving vehicle safety and are leading the way in developing the technologies necessary to reduce fatalities and injuries. Vehicle suppliers play a key role in the vehicle industry, particularly in developing and deploying a range of advanced driver assistance systems (ADAS), automated driving systems (ADS), and other advanced vehicle safety technologies. Suppliers are critical in the ongoing development and implementation of vehicle-to-vehicle (V2V), vehicle-to-infrastructure (V2I) and vehicle-to-pedestrian (V2P) technologies (collectively referred to as vehicle-to-everything, or V2X). Moreover, suppliers need to meet the needs of their customers – the vehicle manufacturers – to support the market demands and future standards and regulations related to V2X communications. The motor vehicle supplier industry has spent millions of dollars on research and development to save lives through intelligent transportation systems (ITS) applications.

**II. The Commission Should Not Restrict Commercial Operations in the Modified ITS Band**

The Commission seeks comment on whether it should “prohibit commercial operations in ITS spectrum” based on a 2016 Petition for Rulemaking filed by Open Technology Institute at New America and Public Knowledge.<sup>2</sup> FNPRM, ¶ 168. MEMA strongly opposes a blanket ban on “commercial operations” – a potentially open ended and highly ambiguous term – in the reduced ITS band. Adopting this proposal will further disincentivize continued innovation in V2X

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<sup>1</sup> MEMA represents its member companies through its four divisions: Automotive Aftermarket Suppliers Association (AASA); Heavy Duty Manufacturers Association (HDMA); MERA - The Association for Sustainable Manufacturing; and Original Equipment Suppliers Association (OESA). For more about the economic and employment impact of motor vehicle parts manufacturers, the nation's largest manufacturing sector, visit <https://www.mema.org/resource/us-labor-economic-impact-vehicle-supplier-industry>

<sup>2</sup> Available at <https://ecfsapi.fcc.gov/file/10628707126715/DSRC%20Petition%20FINAL.pdf>. (“Public Knowledge Petition”).

applications, and serve no legitimate purpose, particularly if the current hierarchical priority system remains in place.

As an initial matter, it must be noted that the purported bases of the Public Knowledge Petition were perceived “cybersecurity and privacy vulnerabilities” erroneously attributed to DSRC operations. That is, while the Petition relied on various news reports of hackers gaining control of vehicle onboard computer systems,<sup>3</sup> these incidents had no connection to DSRC technology or the related security protocols in place. In short, the Public Knowledge Petition was based on a false premise, and the request to ban commercial operations was a solution in search of a problem.

The Commission was right not take any action on the Public Knowledge Petition five years ago, but it would make even less sense to allow this petition to inform any Commission actions at present. Indeed, the factually incorrect basis of the Petition – that DSRC allegedly lacked cybersecurity protections – can hardly be relevant now after the Commission has *eliminated DSRC*. Further, the hypothetical commercial use case discussed by Public Knowledge as part of its request to ban *all* commercial DSRC usage – consumers using DSRC to make mobile payments<sup>4</sup> – is so far afield from the actual V2X applications in use or in development (or the reality of mobile banking), that it is difficult to take seriously as a policy justification.

Simply put, denying commercial operations in the remaining ITS spectrum would have a significant negative impact on burgeoning ITS applications that could potentially be considered “commercial” – depending on how that term is defined. Indeed, any application that is ultimately intended to generate revenue could be considered “commercial.” Would added safety features that necessarily increase the cost of a vehicle be considered commercial if the cost is passed through to the consumer? Would a truck platooning service that is provided for a fee also be considered “commercial,” even if the service contributes directly to promoting an intelligent transportation system – the ostensible purpose of this band? These and other line-drawing exercises do not seem to have been anticipated by the Commission.

Put differently, having to analyze ITS applications through a “commercial vs. non-commercial” prism would be an unhelpful exercise likely to cause even more regulatory uncertainty, further delaying the deployment of advanced ITS applications. Instead, the only relevant test for whether an application can operate within the band as a threshold matter should be whether it is transportation related.<sup>5</sup> And this gating issue is already encompassed in the Commission’s existing rules, which require eligible services and applications to be “related to the improvement of traffic flow, traffic safety, and other intelligent transportation service applications in a variety of environments.” 47 C.F.R. § 90.371(a).<sup>6</sup>

MEMA therefore respectfully submits that the Commission’s rules should continue to permit flexible use rights in the ITS band without regard to potentially arbitrary commercial vs. non-commercial distinctions – so long as operations are transportation-related and adhere to the ITS service rules, as discussed further below.

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<sup>3</sup> *Id.* at 3.

<sup>4</sup> *Id.* at 17.

<sup>5</sup> As MEMA previously established, many different advanced ITS applications are close to being deployed, and they are all grounded in advancing transportation safety and efficiency. See MEMA Comments at 6, available at [https://ecfsapi.fcc.gov/file/10309185101388/MEMA\\_Initial\\_Comments\\_re\\_FCC-5.9\\_Docket\\_19-138\\_FINAL\\_FINAL\\_March-09-2020.pdf](https://ecfsapi.fcc.gov/file/10309185101388/MEMA_Initial_Comments_re_FCC-5.9_Docket_19-138_FINAL_FINAL_March-09-2020.pdf).

<sup>6</sup>It is therefore difficult to see how Public Knowledge’s 2016 request to ban mobile banking applications from utilizing DSRC would have been in any way necessary – such a hypothetical application would not be permitted under the Commission’s existing rules.

### III. Safety-of-Life Applications Should Continue to Receive Priority Access

MEMA agrees with the Commission that the rules it adopts for the ITS band after the transition should retain the existing message priority hierarchy in order to ensure that the most important messages are successfully transmitted over less critical messages. FNPRM, ¶ 156. That is, under the Commission's existing rules, message priority is determined by the following 3-tiered hierarchy:

- (1) safety-of-life messages;
- (2) public safety messages that do not otherwise fall within category 1 above; and,
- (3) all other transportation-related applications would be considered "non-priority."<sup>7</sup>

As noted above, the Commission's existing rules permit operation within the ITS band for messages related to "traffic flow, traffic safety, and other intelligent transportation service applications in a variety of environments." 47 C.F.R. § 90.371(a). Using this existing framework, any traffic safety messages that *could* reduce the risk of an accident should receive priority over other messages,<sup>8</sup> public safety related messages that are not as critical should defer to category 1 "safety critical" messages, while messages that strictly relate to traffic efficiency or other non-safety issues should only be transmitted when there is little risk of harmful interference. Retaining this message priority system – while rejecting further distinctions, such commercial vs. non-commercial – will reduce further message fragmentation in the ITS band and eliminate having to engage in potentially arbitrary classification exercises.

In addition, MEMA believes that it will also be important to retain the new ITS 30 MHz band plan after the transition period to minimize further disruption. MEMA respectfully submits that by retaining separate channels within the ITS band, licensees can better support safety-of-life use cases which rely on more stringent requirements in terms of safety, security, prioritization, and resource availability.

Relatedly, given that DSRC and C-V2X are mutually incompatible, combined with the potentially lengthy transition period, MEMA respectfully submits that during the transition period, 20 MHz should be dedicated exclusively to C-V2X, while DSRC would be permitted on the remaining 10 MHz until the phase out is complete. This should reduce the possibility of harmful interference between C-V2X and DSRC operations during the transition period.

### IV. ITS Operations Need More Dedicated Spectrum

The fact that 2020 saw a significant increase in road fatalities – now totaling over 42,000<sup>9</sup> – at the same time Americans were driving significantly less, underscores the critical importance of providing additional resources – not fewer – to support ITS development. It is a simple fact, and one not seriously disputed by the Commission in its First Report and Order, that reduced spectrum availability for ITS will restrict the number and breadth of safety applications that can safely utilize this dedicated spectrum without fear of harmful interference.

Indeed, the overwhelming majority of commenters responding to the initial NPRM in this docket established that both existing *and planned* additional ITS applications would require the full 75

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<sup>7</sup> See 47 C.F.R. § 90.377(d),(e).

<sup>8</sup> While various ITS applications, such as red-light notifications and severe weather alerts, provide information that could be obtained through other means, the power of ITS applications is the ability to *push* those notifications to drivers and vulnerable road users exactly when the information is needed to reduce a potentially dangerous accident. MEMA therefore believes that "safety-of-life" messages should not be interpreted too restrictively, lest critical information that could reduce the likelihood of an accident be deprioritized.

<sup>9</sup> See <https://www.nsc.org/newsroom/motor-vehicle-deaths-2020-estimated-to-be-highest>.

MHz of spectrum capacity.<sup>10</sup> Again, the Commission did not dispute that it would require at least 30 MHz “for providing basic safety and related services.” First Report and Order, ¶ 42. But the Commission’s response to the additional capacity needed for new applications such as Collective Perception Message (CPM) for protection of pedestrians and bicyclists was a *hope* that the industry could learn to be more efficient in the spectrum it had left – despite unrebutted data demonstrating that 30 MHz of spectrum was insufficient to even safely transmit basic safety messages (BSM) under real world conditions as ITS becomes more widely deployed.<sup>11</sup> The vehicle industry and Department of Transportation’s calculation that a minimum of 75 MHz of spectrum is needed for safety-of-life applications (consisting primarily of BSM, CPM, MCM, SPaT, MAP and platooning communications)<sup>12</sup> is in fact based on the most efficient use of this spectrum. For example, for CPM services, the spectrum-demand calculation assumed that neither raw sensor data nor videos would be utilized, but only lists of detected objects would be shared V2V and V2I to protect pedestrians, bicyclists, or other vulnerable road users detected to be in harm’s way.

ITS applications can prevent thousands of avoidable deaths per year, as well as supporting numerous quality-of-life applications that are on the cusp of realizing their potential – provided there is sufficient spectrum capacity to support their deployment. But given the environment in which ITS applications operate – where milliseconds count and eliminating harmful interference is critically important – the spectrum needed to allow ITS applications to flourish must be comparable to the 5.850-5.895 GHz Band. That is, the spectrum needed must support low-latency, short-range, peer-to-peer safety communications and be free from harmful interference.

MEMA therefore fully supports any Commission efforts to examine and allocate additional spectrum dedicated to ITS applications consistent with these requirements.

Respectfully submitted,

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<sup>10</sup> See, e.g., MEMA Comments at 6, Table 1. Available at [https://ecfsapi.fcc.gov/file/10309185101388/MEMA\\_Initial\\_Comments\\_re\\_FCC-5.9\\_Docket\\_19-138\\_FINAL\\_FINAL\\_March-09-2020.pdf](https://ecfsapi.fcc.gov/file/10309185101388/MEMA_Initial_Comments_re_FCC-5.9_Docket_19-138_FINAL_FINAL_March-09-2020.pdf).

<sup>11</sup> See MEMA Reply Comments at 5. Available at [https://ecfsapi.fcc.gov/file/104271612122789/MEMA\\_Reply\\_Comments\\_re\\_FCC-5.9\\_Docket\\_19-138\\_DRAFT-April-27-2020\\_FinalFinal.pdf](https://ecfsapi.fcc.gov/file/104271612122789/MEMA_Reply_Comments_re_FCC-5.9_Docket_19-138_DRAFT-April-27-2020_FinalFinal.pdf).

<sup>12</sup> See MEMA Comments at Table 1.