



April 24, 2020

Ms. Marlene Dortch
Secretary, Federal Communications Commission
445 12th Street SW
Washington, DC 20554

Re: Use of the 5.850-5.925 GHz Band Proposed Rulemaking

Dear Secretary Dortch,

The Center for Auto Safety (“the Center”) appreciates the opportunity to provide reply comments on the Federal Communications Commission (FCC) proposed rule on Use of the 5.850-5.925 GHz Band (FCC 19-138).

The Center, founded in 1970, is an independent, member supported, non-profit consumer advocacy organization dedicated to improving vehicle safety, quality, and fuel economy. On behalf of our members, and all drivers, passengers, and pedestrians nationwide, the Center continues to support an exclusive non-commercialized, dedicated safety bandwidth that will allow vehicles to communicate with other vehicles, pedestrians, and infrastructure in a manner that has the potential to drastically reduce fatalities, injuries, and costs on American roads as it continues to be deployed.

The Center remains opposed to reallocation of the 5.9 GHz band (5.850-5.925 GHz) that has been reserved by Congress for use by Dedicated Short Range Communications (DSRC), the currently dedicated automotive safety spectrum, as previously documented in our February 25, 2019 response to the Department of Transportation Request for Comment DOT-OST-2018-0210, vehicle-to-everything (V2X) Communication, and March 20, 2020 response to *Use of the 5.850-5.95 GHz Band*; FCC-CIRC1912-YY, Notice of Proposed Rulemaking – ET Docket No. 19-138, incorporated here by reference.¹ The FCC’s proposed rule would permit unlicensed devices to operate in the lower 45 megahertz (MHz) portion of the band at 5.850-5.895 gigahertz (GHz). This spectrum is presently reserved for transportation safety technologies, which would no longer have access to the 5.850-5.895 GHz band.

¹ CAS response to Request for Comment DOT-OST-2018-0210, V2X Communication, at: <https://www.autosafety.org/wp-content/uploads/2019/02/Center-for-Auto-Safety-V2X-Communications-Comment-DOT-OST-2018-0210.pdf>

As you know, DSRC is an enabling non-commercial service component of the Intelligent Transportation System (ITS). DSRC is designed to enable vehicle-related communications while preserving user privacy at no cost to the user. Dedicated 5.9 GHz band spectrum reallocation as proposed by the FCC would inevitably further delay and imperil deployment of life-saving ITS technologies. This proposal would also likely force migration of V2X technologies to unproven alternative commercial services in other spectrum bands, unnecessarily delaying V2X deployment, discouraging its use, limiting its lifesaving potential, compromising user privacy and imposing user costs for alternative communication services.

The Center has long advocated development and use of reliable life-saving technology in the public interest, including DSRC-based V2X technology. As we noted in our original comment,² the Center has significant concerns regarding the FCC's proposal, since we view V2X and other emerging safety technologies as vital tools in promoting national transportation safety.

The lifesaving and collision-avoidance potential of the reserved 5.9 GHz dedicated spectrum, when combined with currently available and emerging V2X communications technology, as amply demonstrated by government funded research³ and in the responses to the FCC reallocation proposal, is indisputable. The National Highway Traffic Safety Administration (NHTSA) estimates that the applications provided for by vehicle to vehicle (V2V) alone could reduce the frequency and severity of unimpaired motor vehicle crashes by up to 80%.⁴ We believe that taking away the majority of the spectrum available for V2X technologies, including V2V, threatens to undermine the ability of these technologies to function, and should not be considered while thousands of American lives could be saved by immediate V2X deployment.⁵

Further, the record clearly shows that the principle rationale cited for the proposed reallocation, slow development of the dedicated spectrum,⁶ is not supportable.⁷ In fact, 5.9 GHz spectrum development for V2X has been rapid when compared with other novel communication technologies in spite of numerous attempts to delay its development by both the FCC⁸ (including

² CAS Response to FCC Request for Comment, Use of the 5.850-5.95 GHz Band; FCC-CIRC1912-YY, Notice of Proposed Rulemaking – ET Docket No. 19-138, at: <https://www.autosafety.org/wp-content/uploads/2020/03/Center-for-Auto-Safety-Response-to-FCC-comment-request-on-Docket-No.-19-138.pdf>

³ Intelligent Transportation Systems Joint Program Office, <https://www.its.dot.gov/pilots/index.htm>

⁴ Proposed rule would mandate vehicle-to-vehicle (V2V) communication on light vehicles, allowing cars to 'talk' to each other to avoid crashes, NHTSA, December, 2016. Available at: https://one.nhtsa.gov/About-NHTSA/Press-Releases/ci.nhtsa_v2v_proposed_rule_12132016.print

⁵ Re: Draft Notice of Proposed Rulemaking in the Matter of Use of the 5.850-5.925 GHz Band, Secretary Elaine Chao, November 20, 2019. Available at: <https://www.highways.org/wp-content/uploads/2019/12/sec-chao-letter-5.9-11-20-19.pdf>

⁶ 85 Fed. Reg. 6841, *Use of the 5.850-5.95 GHz Band*; FCC-CIRC1912-YY, Notice of Proposed Rulemaking – ET Docket No. 19-138, <https://docs.fcc.gov/public/attachments/DOC-360940A1.pdf>, II, 4), “Since that time, the DSRC service has evolved slowly and has not been widely deployed within the consumer automobile market (it has found use in certain specialized, traffic-related projects).”

⁷ Supra, note 2, “In comparison with WiFi technology development and deployment, DSRC development in the 5.9 GHz band has been very fast; this in spite of governmental attempts to inhibit its deployment.”

⁸ Letter FCC Commissioners O'Reilly and Rosenworcel to Lentz, May 10, 2018, <https://www.fcc.gov/wireless/bureau-divisions/mobility-division/dedicated-short-range-communications-dsrc-service> https://transition.fcc.gov/Daily_Releases/Daily_Business/2018/db0510/DOC-350655A1.pdf;

a delay of 5 years between DSRC spectrum allocation by Congress and enabling approval of reallocation of spectrum previously used for conflicting services)⁹ and NHTSA.¹⁰ It defies logic and understanding that the government would use the consequences of its own ongoing actions and inactions unnecessarily delaying lifesaving dedicated 5.9 GHz spectrum development as a rationale for further destruction of its safety potential.

The Center's concerns about the consequences of paring the dedicated safety spectrum were shared by the overwhelming majority of comments filed in this proceeding. Of the roughly 150 comments from organizations focused on the discussion of spectrum arrangement between V2X and unlicensed devices, more than 85 percent opposed the FCC's proposal and supported preserving the entire band for V2X technologies. Commenters in opposition to this NPRM came from a diverse coalition of organizations and stakeholders. The record accompanying this proceeding can only be viewed as a compelling rebuke of the NPRM rationale and consequences, in terms of both the number and variety of groups opposed to taking spectrum away from transportation safety technologies.

Indeed, no evidence has been presented that the current dedicated 75 MHz spectrum will even be adequate for all reasonably expected traffic situations and vehicle densities. Additional research validating the sufficiency of the current spectrum allocation is needed before there is any consideration of spectrum reallocation that reduces its enabling V2X capacity.

Crucially, the United States Department of Transportation (USDOT), the expert agency on transportation safety, commented that "the full 75 MHz of the 5.9 GHz band should be retained for safety and other transportation purposes; that FCC should revisit its proposal and seek broader stakeholder engagement on any reworking of the 5.9 GHz band; and that any reallocation of this band to include unlicensed use should be grounded in robust science demonstrating that V2X applications will not be subject to harmful interference, and showing that these applications will retain their key functionality."¹¹ The FCC has not justified moving forward with a proceeding directly impacting transportation safety when that proposal has been consistently and vocally opposed by so many, including the federal authority on transportation safety.

Letter from Committee on Transportation and Infrastructure to Chairman Pai, January 22, 2020, "On December 19, 2019, the FCC announced a temporary freeze on acceptance and processing of 5.9 GHz license applications.⁹ Additionally, the Committee understands that the FCC has been sitting on approximately 500 applications for DSRC Roadside Unit licenses."

⁹ UPDATE 1-Toyota abandons plan to install U.S connected vehicle tech by 2021, <https://news.yahoo.com/1-toyota-abandons-plan-install-221158957.html>

Dedicated Short Range Communications (DSRC) Service, "On December 17, 2003 the Commission adopted a Report and Order establishing licensing and service rules for the Dedicated Short Range Communications (DSRC) Service in the Intelligent Transportation Systems (ITS) Radio Service in the 5.850-5.925 GHz band (5.9 GHz band)," <https://www.fcc.gov/wireless/bureau-divisions/mobility-division/dedicated-short-range-communications-dsrc-service>

¹⁰ See supra FN 1.

¹¹ Comments of U.S. Department of Transportation, ET Docket No. 19-138, at 3 (filed Mar. 13, 2020).

This lack of justification is particularly striking when compared to the safety arguments posed by USDOT and transportation safety organizations in the administrative record. USDOT's comment stated that V2X benefits "depend on the continued availability of the full 75 MHz and the assurance that V2X communications can reliably occur without harmful interference."¹² USDOT defines interference to cooperative communications in three ways:

- Transmission of the V2X message is suppressed—the device senses that the spectrum is in use and it cannot broadcast a message.
- The V2X message is corrupted upon reception – two or more messages arrive at the receiver, overlapping and causing errors in demodulation and packets.
- The receiving devices cannot "hear" the incoming messages and/or the safety-critical messages are not prioritized over the less-critical messages.¹³

Despite USDOT research indicating that unlicensed devices operating in the lower 45 MHz of spectrum would likely cause significant interference with V2X technologies operating in the remaining 30 MHz, the FCC continues to move forward with its current plan. Despite Toyota's comment that "the presence of harmful interference will quite possibly make most or all of the 30 MHz of spectrum unusable for safety critical crash avoidance applications" and "puts the public at risk," the FCC insists on moving forward contrary to public safety.¹⁴

Within the current spectrum allocation, no compelling evidence has been presented that the spectrum plan proposed by this NRPM would allow V2X technologies to function without harmful interference. Nor have we seen any evidence that other prospective alternative V2X communication technologies (e.g. 5G) could provide comparable safety, economy, and privacy. Absent proof of technology that provides equivalent lifesaving potential, privacy, timeliness, and economy, the Center remains opposed to any action to limit use of or reallocate any portion of the dedicated spectrum from transportation safety to any other use.

The Center joins the overwhelming majority of commenters in opposition to this proposal and supports maintaining the current 75 MHz allocation for transportation communications in the 5.9 GHz band. We do not support the major shift in federal transportation policy that this NPRM proposes while USDOT, public interest groups, automotive companies,¹⁵ and communications technology companies continue to oppose it. We are not opposed to USDOT's request for a negotiated rulemaking on this decision if such an action would result in "an improved proposal that would be more widely embraced, leading to a durable, comprehensive solution for the 5.9

¹² Comments of U.S. Department of Transportation, ET Docket No. 19-138, at 8 (filed Mar. 13, 2020).

¹³ Comments of U.S. Department of Transportation, ET Docket No. 19-138, at 45-46 (filed Mar. 13, 2020).

¹⁴ Comments of Toyota Motor Corporation, ET Docket No. 19-138, at 17 (filed Mar. 9, 2020).

¹⁵ Auto Industry Unites Behind Safety Technology by Committing at least 5 Million V2X Radios and Devices by the End of 2025, <https://www.autosinnovate.org/press-release/auto-industry-unites-behind-safety-technology-by-committing-at-least-5-million-v2x-radios-and-devices-by-the-end-of-2025/>

GHz band.”¹⁶ But the Center wants to be clear: safety delayed is safety denied and time is wasting in deploying lifesaving V2X technologies. It is never too soon to save lives, and no compelling argument has been presented for further delays deploying V2X technology that could cost additional lives. Therefore, we recommend that the FCC prioritize processing and approval of the current substantial backlog of DSRC licenses that currently unnecessarily inhibits productive use of the 5.9 GHz band for its intended use. We also advise withdrawal of the FCC’s spectrum reallocation proposal, reaffirming Congressional intent that this portion of the spectrum be exclusively dedicated to transportation safety so that both government and industry can get on with the important tasks of saving lives, immediately.

Thank you for the opportunity to present our views in opposition to the reallocation of the 5.9 GHz band and for your consideration of this matter.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Jason Levine". The signature is fluid and cursive, with the first name "Jason" being larger and more prominent than the last name "Levine".

Jason Levine
Executive Director

cc: Secretary Elaine Chao, U.S. Department of Transportation
Deputy Administrator James Owens, National Highway Traffic Safety Administration

¹⁶ Comments of U.S. Department of Transportation, ET Docket No. 19-138, at 7 (filed Mar. 13, 2020).