Before the FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20554

In the Matter of)
Use of the 5.850-5.925 GHz Band) ET Docket No. 19-138

PETITION FOR RECONSIDERATION OF THE ALLIANCE FOR AUTOMOTIVE INNOVATION

Pursuant to Section 1.429 of the Federal Communications Commission's ("FCC" or "Commission") rules, 47 C.F.R. § 1.429, the Alliance for Automotive Innovation ("Auto Innovators") hereby petitions for reconsideration of the Commission's recent *Report and Order*, *Further Notice of Proposed Rulemaking, and Order of Proposed Modification* in the above-referenced proceeding ("*Report and Order*"). In the *Report and Order*, the Commission made significant changes to the 5.850-5.925 GHz ("5.9 GHz") band, reversing a longstanding exclusive allocation of the band to intelligent transportation service ("ITS") applications. Auto Innovators previously set forth in detail in the record the reasons why this decision was a mistake, and each of these concerns still applies. But Auto Innovators specifically urges the Commission to reconsider its decision to reallocate the lower 45 MHz of the band for unlicensed Wi-Fi use for two reasons that have come into sharp relief following the FCC's decision: First, following the transition to a new Congress and Administration, both the Department of Transportation ("DOT" or "Department") and members of Congress have signaled that they share the same concerns over the FCC's actions as were consistently expressed prior to the vote.

Use of the 5.850-5.925 GHz Band, Report and Order, Further Notice of Proposed Rulemaking, and Order of Proposed Modification, FCC 20-164 (2020).

Second, in light of recent technological and regulatory developments, it has become even more clear that retaining the entire 5.9 GHz band for ITS applications can help facilitate the future of transportation. The Commission should grant this petition and reallocate the lower 45 MHz back to ITS.

I. THE CONTINUED CONCERNS VOICED BY THE NEW ADMINISTRATION AND CONGRESS COUNSEL IN FAVOR OF REVISITING THE REPORT AND ORDER'S ALLOCATION OF THE LOWER 45 MHZ.

As Auto Innovators explained to the Commission during this proceeding, reallocating 60 percent of the 5.9 GHz band over the objection of DOT raises significant questions about the Commission's legal authority, particularly in light of Congress's grant of authority to DOT to administer a nationwide ITS program.² Auto Innovators maintains that the FCC exceeded its authority in issuing this *Report and Order*.

But even assuming the agency had the legal authority to reallocate the lower 45 MHz of the 5.9 GHz band, the fact that a new DOT, under a new presidential administration, is voicing the same concerns as the previous administration merits reconsideration of the item by this Commission. Under the previous administration, DOT was a stalwart proponent of maintaining the entire 5.9 GHz band for automotive safety applications.³ As late as November 2020, just

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06/Joel%20Szabat%20Opening%20Statement%20-%20As%20Delivered%20061620.pdf; Press Release, Nat'l Highway Traffic Safety Admin., U.S. Dep't of Transp. Releases Request for Comment (RFC) on Vehicle-to-Everything (V2X) Communications (Dec. 18, 2018),

² See Ex parte letter from Scott D. Delacourt, Counsel to the Alliance for Automotive Innovation, to Marlene H. Dortch, Secretary, FCC, ET Docket No. 19-138 (filed Oct. 30, 2020).

³ See Letter from Charles Cooper, Associate Admin'r for Spectrum Mgmt., NTIA, to Marlene H. Dortch, Secretary, FCC, ET Docket No. 19-138 (filed Mar. 13, 2020) (filing on behalf of the Dep't of Transp.); Hon. Elaine L. Chao, Secretary, DOT, Remarks at the American Ass'n of State Highway and Transp. (Feb. 26, 2020), https://www.transportation.gov/briefing-room/american-association-state-highway-and-transportation-officials-2020-washington; Joel Szabat, Nominee for Under Secretary of Transp. for Policy, Prepared Statement for Confirmation Hearing before the Senate Com., Science and Transp. Committee (June 16, 2020), https://www.transportation.gov/sites/dot.gov/files/2020-

days before the previous Commission adopted the *Report and Order*, DOT continued to voice its objections, filing a lengthy ex parte outlining the Department's significant concerns with the Commission's approach as set forth in the draft item.⁴ The technical analyses and other correspondence in that filing demonstrated, persuasively, why the imminent *Report and Order* would be deleterious for automotive safety, contrary to U.S. policy objectives, technically problematic, and harmful for technological innovation.

This opposition on safety grounds was not limited to the transportation professionals in DOT. Members of Congress, who likewise indicated skepticism about the FCC's Wi-Fi-centric approach to the 5.9 GHz band,⁵ also continued to express concern up until the last possible moment. Just one day before the Open Meeting at which the *Report and Order* was adopted, Senator Maria Cantwell encouraged then-Chairman Pai to halt action on the item, asserting that the draft *Report and Order* did not "adequately address the myriad issues raised by stakeholders, especially those raised by other federal agencies like the Department of Transportation." She urged that the "agency should not move forward on complex and controversial items in which the new Congress and new Administration will have an interest." In February, Senator Cantwell assumed the role of Chair of the Senate Commerce, Science, and Transportation Committee with

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 $\underline{https://www.nhtsa.gov/press-releases/us-department-transportation-releases-request-comment-rfc-vehicle-everything-v2x.}$

⁴ Letter from Steven G. Bradbury, General Counsel, DOT, to Hon. Ajit Pai, Chairman, FCC, ET Docket No. 19-138 (filed Nov. 6, 2020).

See, e.g., Letter from Peter A. DeFazio, Chair, Committee on Transp. and Infrastructure, U.S. House of Representatives, et al., to Hon. Ajit Pai, Chairman, FCC, et al. (Jan. 22, 2020), https://docs.fcc.gov/public/attachments/DOC-363328A1.pdf.

Letter from Maria Cantwell, Ranking Member, Committee on Comm., Science, and Transp., U.S. Senate, to Hon. Ajit Pai, Chairman, FCC, at 1 (Nov. 17, 2020), https://docs.fcc.gov/public/attachments/DOC-369548A2.pdf.

Id.

legislative and oversight jurisdiction over the Federal Communications Commission and the Department of Transportation.

Since that time, in addition to a new Congress having been sworn in, a new President has been inaugurated and a new Secretary of Transportation confirmed. Yet the priorities of DOT with respect to the 5.9 GHz band remain unchanged, and its concerns about the *Report and Order* have been renewed. In Congressional testimony earlier this year, Secretary Buttigieg explained that "[t]he [5.9 GHz band] – often known as the "Safety Band" – that's a very important priority for transportation communications and public safety. . . . I know that in the prior administration, as well the Department communicated its concerns – and I know there's been bipartisan concern in the [House Transportation & Infrastructure Committee] as well, and we share that concern." The Secretary announced the Department's intention to "engag[e] with counterparts across the administration on a way forward and [try] to establish the best way to handle and share the spectrum, that is consistent with not just safety communications as we know them, but where they're headed."

The new Congress has also raised concerns about the Commission's approach. In March 2021, House Transportation and Infrastructure Committee Chairman Peter DeFazio wrote a letter to Acting Chairwoman Rosenworcel to "express [his] continued strong opposition to the [FCC's] decision to share the 5.9 GHz radio frequency band (or Safety Band) with unlicensed Wi-Fi." 10

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House Transp. and Infrastructure Committee, *Hearing on "The Administration's Priorities for Transportation Infrastructure*," YouTube, at 31:03-31:22 (Mar. 25, 2021), https://www.youtube.com/watch?v=zY8ljWd1tkk&t=8449s.

⁹ *Id.* at 31:23-31:39.

Letter from Peter A. DeFazio, Chairman, Committee on Transp. and Infrastructure, U.S. House of Representatives, to Hon. Jessica Rosenworcel, Acting Chairwoman, FCC, at 1 (Mar. 18, 2021), https://transportation.house.gov/imo/media/doc/2021-03-18%20FCC%205.9%20Letter.pdf.

In particular, Rep. DeFazio noted that he "remain[ed] deeply disturbed that the FCC's [Report and Order] did not address [DOT's] many technical concerns about the safety impacts of the FCC's proposal."¹¹ Further, the FCC "ignored the safety concerns raised by DOT, bipartisan opposition from 38 Members of Congress, every state Department of Transportation in the nation, and the entire transportation stakeholder community," resulting in "an unsafe proposal that stands to undermine roadway safety."¹² Rep. DeFazio urged the Commission to "take a more measured approach to the 5.9 GHz band under the Biden administration and provide the proper consideration to the impacts this decision stands to have on the lives of the traveling public."¹³

In light of these significant ongoing concerns, which have been renewed by the Biden Administration and the 117th Congress, the Commission should revisit its *Report and Order*. ¹⁴ In so doing, the Commission should take advantage of the opportunities that the change in Administration presents for renewed intergovernmental coordination between the FCC, DOT, and other government stakeholders with respect to the technological and spectrum needs for the ITS program and automotive safety generally. The Commission should pursue a collaborative approach with DOT that takes into account the Department's view on the policy decisions that need to be made to ensure that the ITS program fulfills Congress's objectives.

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¹¹ *Id.* (citation omitted).

¹² *Id.* at 2.

¹³ Id

See 47 C.F.R. § 1.429(b)(1) (providing as grounds for reconsideration changing facts and circumstances).

II. RETAINING THE ENTIRE 5.9 GHZ BAND FOR AUTOMOTIVE SAFETY APPLICATIONS IS INCREASINGLY ESSENTIAL TO THE FUTURE OF TRANSPORTATION.

As has been well documented in this proceeding by Auto Innovators and others, sound spectrum policy for automotive safety and the ITS program must account for technological innovation and the evolution of vehicle-to-everything ("V2X") communications. ¹⁵ Chief among these considerations is vehicle automation.

While it has always been the case that V2X technologies—and sufficient spectrum to support them—help facilitate our automated driving future, it is increasingly clear that vehicle autonomy is here, and here to stay. A few months before the FCC adopted the *Report and Order*, DOT and the National Science and Technology Council completed a public comment cycle on the fourth installment in an iterative process to facilitate policymaking in the area of automated vehicles. Entitled *Ensuring American Leadership in Automated Vehicle Technologies: Automated Vehicles 4.0*, the Report provides up-to-date guidance and insight on the state of automated vehicle technologies and policy considerations for the future. Like earlier versions of the report, *AV 4.0* emphasizes the importance of spectrum-based technologies generally, and V2X communications in particular, to AV applications. The Report explained that the data exchange provided by V2X communications systems "allows AVs to receive and contribute data beyond their on-board sensors' physical range." The Report continues,

See, e.g., Comments of the Alliance for Automotive Innovation, ET Docket No. 19-138, at 15-17 (filed Mar. 9, 2020); Comments of Toyota Motor Corp., ET Docket No. 19-138, at 9-11 (filed Mar. 9, 2020); Comments of the South Dakota Dep't of Transp., ET Docket No. 19-138, at 2 (filed Mar. 9, 2020); Comments of the American Trucking Ass'n, ET Docket No. 19-138, at 7 (filed Mar. 9, 2020).

Nat'l Science & Tech. Council & U.S. Dep't of Transp., Ensuring American Leadership in Automated Vehicle Technologies: Automated Vehicles 4.0, at 17 (Jan. 2020), https://www.transportation.gov/sites/dot.gov/files/2020-02/EnsuringAmericanLeadershipAVTech4.pdf.

¹⁷ *Id.* at 6.

"[w]ireless technologies that complement the capabilities of automated vehicle technologies are a priority of the current administration." 18

The new Administration has underlined the importance of AV deployment, and its commitment to ensuring that this new technology moves forward. In his confirmation hearing, Secretary Buttigieg emphasized the extent to which AV technology is "advancing very quickly" and "holds the potential to be transformative" for the nation's roads and economy, and reiterated the importance of national AV policy that keeps up with the pace of technological innovation.¹⁹

The auto industry has been forging ahead with AV development and deployment, including those that leverage V2X technologies. For instance, building on successful testing in Michigan last year, Ford recently launched a pilot program in Miami that uses smart nodes deployed on roadway infrastructure at intersections to alert AVs to potential hazards for crash mitigation.²⁰ The smart nodes use C-V2X to communicate with AVs that Ford is testing in the area.

Supporting these innovations with smart spectrum policy is increasingly important for preserving American leadership in automotive technologies and delivering on the Biden Administration's commitment to American renewal in this critical area, as countries like China are making significant investments in AV and V2X technologies as well.

¹⁸ *Id*.

Senate Comm., Science and Transp. Committee, *Transp. Secretary Confirmation Hearing*, C-SPAN, at 53:43-54:11 (Jan. 21, 2021), https://www.c-span.org/video/?508035-1/transportation-secretary-nominee-pete-buttigieg-testifies-confirmation-hearing.

Sam Abuelsamid, Ford Installing Smart Sensor Nodes in Miami to Give AVs X-Ray Vision, Forbes (Mar. 31, 2021, 11:30 AM EDT), https://www.forbes.com/sites/samabuelsamid/2 021/03/31/ford-installing-smart-sensor-nodes-in-miami-to-give-avs-x-ray-vision/?sh=616506553d85.

However, some of the applications that cannot be accommodated in the current 30 megahertz allocated for V2X, such as the Maneuver Coordination Messages ("MCM"), are those that are designed and intended to support automated driving.²¹ The record demonstrates that the MCM application will require 20 to 30 MHz of spectrum in addition to the bandwidth required for the basic safety message and will therefore not be possible within the new V2X allocation.

In addition, there is strong and clear support for advancing 5G in the United States and the Commission has repeatedly expressed its commitment to ensuring that there is adequate spectrum to support 5G technologies. ²² The new allocation for V2X technologies is not sufficient to support next generation V2X technologies, such as 5G-V2X, and is therefore counterproductive to the Commission's goals.

These ongoing developments in AV and 5G technology and the demonstrated priority of the current administration and Congress to realize the full potential of these technologies provide another reason for the Commission to revisit its decision to allocate 60 percent of the 5.9 GHz band *away* from automotive applications. As it reconsiders this action taken in the *Report and Order*, the Commission should coordinate with DOT, other federal agencies, state departments of transportation, and other auto industry stakeholders to ensure that automotive spectrum policy

See, e.g., Ex parte letter from Scott D. Delacourt, Counsel for Alliance for Automotive Innovation, to Marlene H. Dortch, Secretary, FCC, ET Docket No. 19-138, Attachment at 18 (Aug. 3, 2020); Letter from Paul G. Schomburg, Director, Gov't & Pub. Affairs, Panasonic, to Marlene Dortch, Secretary, FCC, ET Docket No. 19-138, Attachment at 11-12 (Oct. 6, 2020) (Rick Engelman, Spectrum Requirements for Intelligent Transportation Systems (Oct. 5, 2020)).

The FCC has reiterated time and again its commitment to ensuring there is adequate spectrum for 5G technologies. Comments of the Alliance for Automotive Innovation, ET Docket No. 19-138, at 8 (filed Mar. 9, 2020). Acting Chairwoman Rosenworcel recently explained that ensuring adequate spectrum for 5G technologies was a Commission priority: "We need to deliver the 5G that the American people were promised. That means a 5G that is fast, secure, resilient, and—most importantly—available across the country." Press Release, FCC, Acting Chairwoman Rosenworcel Proposes Framework to Free Up Mid-Band Spectrum for 5G (Feb. 23, 2021), https://docs.fcc.gov/public/attachments/DOC-370205A1.pdf.

appropriately prioritizes American innovation, technological development, and the numerous public interest benefits—safety and otherwise—that a robust automotive ecosystem will bring to the American people.

III. CONCLUSION

In light of the foregoing, the Alliance for Automotive Innovation respectfully requests that the Commission reconsider its decision to reallocate the lower 45 MHz of the 5.9 GHz band to unlicensed Wi-Fi operations, and to return to its prior approach of retaining the full 5.9 GHz band for ITS applications.

Respectfully submitted,

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