

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of)
)
Amendment of Part 90 of the Commission's Rules) WP Docket No. 07-100
)

PETITION FOR RECONSIDERATION

Chief Jeffrey D. Johnson (Ret.)
800-785-3473
mellis@theptsbta.org

The Public Safety Spectrum Alliance
C/o of the Public Safety Broadband
Technology Association
7121 W Craig Road, Suite 113-21
Las Vegas NV 89129
702-720-2200

December 29, 2020

Executive Summary

In adopting the 6th Report and Order in the above captioned proceeding (“Order”), the Commission failed to rectify the deficiencies in its rules that resulted in the under-utilization of the 4940-4990 MHz spectrum band (the “4.9 GHz Band” or “Band”), and to fulfill its statutorily mandated purpose of promoting public safety.¹ Instead of fixing the flaws in its rules that limited public safety utilization of the Band, the Commission seemingly used such under-utilization as an excuse to re-purpose the Band for commercial entities. The Commission’s decision to eliminate long-standing dedicated use of the Band for public safety and cede its nationwide spectrum management authority to each of the states, which do not have spectrum management experience or allocated resources necessary to manage the Band, will most certainly result in a patchwork of different rules, different users, and different use cases, as well as put the integrity of public safety communications at risk. Contrary to one of the Commission’s primary justifications for its decision to change the rules governing the Band, its action will serve as a disincentive to industry to invest in the devices and technology utilizing the 4.9 GHz Band due to the resulting lack of consistent and predictable volume of users and economies of scale necessary to incentivize investment in the Band.

The Order not only suffers from several procedural and legal deficiencies, discussed in more detail below, but provides scant support for the Commission’s action. In particular, the Order fails to adequately address the multitude of concerns raised by the public safety community in the record about taking the Band away from exclusive public safety use and opening it up for commercial and other purposes, and to explain why more-effective service

¹ One of the Commission’s primary objectives is to “make available, so far as possible, to all people of the United States ... a ... wire and radio communication service . . . for the purpose of promoting safety of life and property.” 47 U.S.C. § 151.

rules for public safety licensees would not have been a more rational way to improve the Band's utilization while not jeopardizing public safety's use of the Band. The Order effectively ignores a number of public safety agencies' current reliance on the 4.9 GHz Band, the suggestions for revising the FCC rules and framework to increase public safety usage of the Band, and the harmful effects that will result from permitting states to unilaterally determine which entities, commercial or otherwise, will be permitted to use the spectrum, resulting in a patchwork of potentially incompatible rules. Put simply, the Order is devoid of a rationale with any support in the record for the Commission's arbitrary decision.

In particular, the Commission's Order suffers from several material defects requiring reconsideration:

1. Until its publishing of its draft Order immediately prior to its open meeting, at no time did the Commission ever propose or even imply that it was considering a rule change that would (i) take the 4.9 GHz Band away from exclusive public safety use and cede control over the Band to each eligible state to manage as it sees fit, or (ii) exclude states that divert 911 fees for other state purposes from eligibility for a license, omissions which precluded adequate and reasonable opportunity for public comment on the proposed rule changes.²
2. There is no demonstrable support in the record by any state, or any commenter for that matter, for the Commission's decision to place this spectrum management burden on each state, which typically have neither the resources, experience, nor expertise to effectively manage this nationwide federal spectrum resource in a way that ensures seamless, secure, interoperable, intrastate,

² See *Dissenting Statement of Commissioner Geoffrey Starks* at para. 4.

interstate, and cross-border usage. Indeed, not a single state filed in support of, or even implied the Commission should take, the action it did in the Order.

3. The Commission neither addressed nor recommended changes to its rules that would have resulted in greater utilization of the Band by public safety licensees.
4. The Commission provided no guidance or requirements of any kind on the states' management of the Band, including ensuring non-interference with public safety communications, priority of public safety mission critical traffic (and preemption of non-public safety traffic when necessary), use of open standards, implementation of appropriate cyber and other security protocols, or interoperability, which will invariably lead to an inconsistent patchwork of operations and place public safety communications at significant risk. In order to serve public safety, interference protection, priority, and preemption must be mandated.
5. There is no support in the record, nor did the Commission provide any analysis or explanation for how ceding oversight of the 4.9 GHz Band to each of the states will appropriately increase use of the Band, promote the safety of life and property, and serve the public interest.

In short, the Petitioners are requesting the Commission vacate the Order and Seventh Further Notice of Proposed Rulemaking (“Seventh FNPRM”) and instead direct the Public Safety and Homeland Security Bureau to convene with Petitioners and other interested parties to construct an improved path forward, including without limitation addressing rational spectrum management options to ensure greater utilization of the Band, and the implementation of specific technical and operational safeguards to preserve public safety’s continued ability to fully utilize the Band without interference and on a prioritized and nationwide basis.

The reality is that the public safety mission does not stop at state borders, and ensuring fully prioritized, secure, and interoperable communications for public safety is paramount and should take precedence over any secondary commercial use. In addition, the Commission should explore alternative options for achieving the goal of protecting public safety's use while also expanding overall utilization of the Band. Several commenters have submitted proposals aimed at increasing public safety utilization of the Band, which were not addressed by the Commission in the Order.

Furthermore, many states are not currently equipped to provide such service and oversight. Prioritizing use by public safety with secondary commercial use, while ensuring appropriate preemption, security, resiliency, interoperability, and interference-free operations for public safety users must be a high priority. The individual states have already taken a clear position on their lack of desire or ability to oversee spectrum usage and meet rigorous public safety wireless communications standards, including that associated with network build-out and operations for public safety operations within their respective states. When given the opportunity to manage Band 14 spectrum within their respective states and territories, all 56 governors affirmatively elected to opt-in to the Nationwide Public Safety Broadband Network ("NPSBN") rather than attempt to manage Band 14 spectrum on their own.

If the Commission continues on its current course of ceding control of the 4.9 GHz Band to the states, which are ill-prepared to timely and effectively manage the spectrum in a way that ensures nationwide interoperability, security, and non-interference, first responders and the public they are dedicated to protecting will suffer irreparable harm. Accordingly, Petitioner requests that the Commission vacate the rules regarding the reallocation of the 4.9 GHz Band and the Seventh FNPRM.

Contents

I. To Protect Public Safety Communications, the Commission Must Vacate the Rules Removing the 4.9 GHz Band from Public Safety Use and Ceding Oversight of the Band to the States for Unrestricted Use.....	1
<i>a. The Commission Improperly Failed to Provide Adequate Notice and Public Comment of its Rule Change as Required by the APA.....</i>	<i>3</i>
<i>b. There is Little to No Support in the Record for the Commission’s Action, and the Commission Failed to Adequately Consider and Address Material Comments in the Record from Public Safety, Including the PSSA, States and Localities, Advocating Against any Reallocation or Auctioning of the Spectrum</i>	<i>6</i>
i. The Commission did not Propose or Discuss any Changes to its Rules that would have Resulted in Greater Utilization of the Band by Public Safety Licensees	6
ii. The Commission Failed to Consider and Address all other “Significant Comments”, Most of Which Either Opposed or Failed to Support the Commission’s Ultimate Action.	8
<i>c. The Order Improperly Fails to Sufficiently Consider the Impacts to Public Safety or Provide any Support that its Decision will Result in Increased Band Usage.....</i>	<i>10</i>
i. The Commission’s Order Does Not Adequately Protect the 4.9 GHz Band for Public Safety Communications.....	10
ii. The Order Fails to Establish a Nationwide Governance Model for the 4.9 GHz Band to Ensure Full Interoperability, Open Standards, Security and Prioritized Use by Public Safety.	12
iii. The Commission’s Proposed Plan Does Not Provide any Rules or Commercial Incentives to Ensure the Build-out and Utilization of the 4.9 GHz Band for Public Safety or Commercial Users, Undermining the Purpose of the Order	13
iv. The Order provides No Protections from Potentially Harmful Interference, putting Public Safety Communications at Significant Risk.....	16
II. The Commission Should Vacate the Order in its Entirety, but in the Alternative, the Order’s Effect Should be Fully Stayed Until Such Time as the Commission can Supplement the Record to Appropriately Address the Proposals of the PSSA and other Public Safety Entities.....	17

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of)
)
Amendment of Part 90 of the Commission’s Rules) WP Docket No. 07-100
)
)

PETITION FOR RECONSIDERATION

Pursuant to Section 1.429 of the Commission’s rules,³ the Public Safety Spectrum Alliance (“PSSA”)⁴ hereby seeks reconsideration of the 6th Report and Order (“Order”) in the above-captioned proceeding.⁵

I. To Protect Public Safety Communications, the Commission Must Vacate the Rules Removing the 4.9 GHz Band from Public Safety Use and Ceding Oversight of the Band to the States for Unrestricted Use

The Commission clearly erred by not sufficiently communicating its proposed rule change as part of the notice and comment process, thus failing to seek the necessary public comment on the appropriateness and feasibility of such proposal as required under Section 553 of the Administrative Procedure Act (“APA”).⁶ Additionally, in coming to its decision, the Commission also failed to adequately address the major comments and issues included in the record in response to the questions the Commission had actually raised in its Sixth Further Notice

³ 47 C.F.R. § 1.429.

⁴ The Public Safety Spectrum Alliance (“PSSA”) is an alliance amongst the nation’s leading public safety leaders and associations. The PSSA is an initiative of the Public Safety Broadband Technology Association (“PSBTA”). The purpose of the Public Safety Spectrum Alliance is to ensure that first responders nationwide are able to use the most technologically advanced communications capability that meets the difficult, life threatening challenges they face as they protect America. The goal of the PSSA is to raise awareness in the FCC, Congress and the White House about public safety’s broadband communications needs, including use of 4.9 GHz and the continued enhancement of FirstNet - the only nationwide, interoperable wireless communications network built for the first responders who protect America. The PSBTA is an organization focused exclusively on ensuring the success of the entire FirstNet ecosystem that includes the legal entity created by Congress, the network infrastructure, hardware and software, and the single most important component - the end users.

⁵ Amendment of Part 90 of the Commission’s Rules, WP Docket No. 07-100, *Sixth Report and Order and Seventh Further Notice of Proposed Rulemaking*, FCC 20-XX (rel. September 20, 2020) (“Order”).

⁶ 5 USC §553(b).

of Proposed Rulemaking (“Sixth FNPRM”). Instead, the Commission rather arbitrarily ignored the bulk of the comments in formulating a new, untested, and unvetted approach for use of the Band, while failing to explain why simply changing its own flawed rules for the Band would not result in greater public safety use.

The Order also substantively fails to address several fundamental issues, including basic requirements to ensure the guaranteed continued use of the Band by existing public safety licensees with safeguards that enable mission critical operations. At a minimum, such safeguards must include (i) prioritization of public safety traffic (including ruthless preemption if and when necessary to protect life and property), (ii) nationwide access to the Band on a fully interoperable basis across state boundaries, and (iii) the prevention of harmful interference to public safety communications from any permitted secondary use, as well as a clear and expedited process for addressing public safety licensees’ concerns about interference from other users.

In the Order, the Commission has simply ceded total control of the 4.9 GHz Band to each of the states without any guidelines, rules, requirements, or guidance regarding either general management and use of the spectrum or, more importantly, to ensure the protection of public safety’s use of the Band.⁷ The Commission has effectively left it to each of the states to figure it out. However, public safety communications are too important to subject them to an untested experiment in spectrum management. These defects in the Order and the Commission’s analysis ignore the real-world consequences to public safety agencies that depend on this Band today to carry out their life-saving work. Yet, despite significant public safety concerns, the Commission

⁷ “To increase flexibility and encourage more efficient use of the 4.9 GHz band, lessees of 4.9 GHz band spectrum *will not be subject to the requirement that they use the spectrum in support of public safety* and may engage in flexible use fixed or mobile operations.” *Order* at 11. Emphasis added.

adopted a final Order without addressing many serious shortcomings and failed to even acknowledge PSSA's ex parte filing and other cautions offered by the public safety community.⁸ Thus, the Commission has committed a clear error in failing to fulfill its statutory obligation to consider important public safety issues.⁹ This constitutes reversible error.¹⁰

In summary, reconsideration is required as the Order suffers from several material and fatal deficiencies. The Order fails to consider the impacts to public safety, lacks reasonable measures to ensure public safety priority access to the Band and prevent interference, fails to ensure nationwide interoperability within the Band for public safety communications, fails to develop any rules or guidelines regarding potential secondary use of the Band whether by the critical infrastructure industry or commercial users, and creates a framework that will make developing such processes and implementing such safeguards on a nationwide basis virtually impossible.

a. The Commission Improperly Failed to Provide Adequate Notice and Public Comment of its Rule Change as Required by the APA

As the Commission is aware, agencies are required to provide the public with adequate notice of a proposed rule followed by a meaningful opportunity to comment on the rule's content.¹¹ Indeed, although the APA has established the minimum threshold for public participation in rulemaking proceedings, the legislative history of the APA suggests that

⁸ See, e.g., *Notice Of Ex Parte of the City of New York, Comments of the National Association of Police Organizations, the National Public Safety Telecommunications Counsel, APCO International, State of Maryland, King County, Washington and the City Of Seattle, Washington, City of Chicago, City of Port Angeles, Washington, BayRICS, Chattanooga, Flathead County, Montana, Lake County Sheriff's Office, Florida Region 9 Committee, The American Association of State Highway and Transportation Officials, City of Chattanooga/Tennessee Valley Regional Telecommunications System, the Forestry Conservation Communications Association, the International Municipal Signal Association, and the International Association of Fire Chiefs, Regional Planning Committee 8.*

⁹ The Commission has an obligation to consider impacts to public safety. See *Mozilla Corp. v. FCC*, 940 F.3d 1 at 93 (D.C. Cir. 2019).

¹⁰ *Id.* at 100 (stating that with regard to the Commission's Restoring Internet Freedom Order "The Commission's disregard of its duty to analyze the impact of the 2018 Order on public safety renders its decision arbitrary and capricious in that part and warrants a remand with direction to address the issues raised.").

¹¹ 5 U.S.C. § 553 (b)-(c).

“[matters] of great importance, or those where the public submission of facts will be either useful to the agency or *a protection to the public*, should naturally be accorded more elaborate public procedures.”¹² However, in this case, the Commission made a material departure from the record and even its own tentative conclusions in the Sixth FNPRM, establishing a rule change effectively out of thin air without any support in the record, without any effective notice of the proposed rule change or that such an action was even contemplated by the Commission, and without an explanation why the agency could not have simply changed its rules to increase public safety utilization of the Band.¹³ This action in and of itself represents reversible error as a prima facia violation of the APA. Indeed, because the 4.9 GHz Band has been historically and exclusively allocated for use for the protection of the public, the Commission’s failure to provide any notice of its decision to take the spectrum away from public safety use and give it to each state to be managed for whatever purpose the state sees fit, is even more egregious in light of the APA’s legislative history on this point.¹⁴

In the Sixth FNPRM, the Commission clearly stated “[o]ur goal is to ensure that public safety *continues to have priority* in the band while opening up the band to additional uses that will facilitate increased usage, including more prominent mobile use, and encourage a more robust market for equipment and greater innovation, *while protecting primary users from harmful*

¹² See *A Brief Overview of Rulemaking and Judicial Review*, Congressional Research Service, March 27, 2017, citing 9 Administrative Procedure Act: Legislative History, S. Doc. No. 248, at 259 (1946); CHARLES H. KOCH JR., 1 ADMINISTRATIVE LAW AND PRACTICE 329-30 (2010 ed.). Emphasis added.

¹³ See *Long Island Care at Home, Ltd. v. Coke*, 551 U.S. 158, 174 (2007) (“The Administrative Procedure Act requires an agency conducting notice-and-comment rulemaking to publish in its notice of proposed rulemaking ‘either the terms or substance of the proposed rule or a description of the subjects and issues involved.’ ... The Courts of Appeals have generally interpreted this to mean that the final rule the agency adopts must be ‘a ‘logical outgrowth’ of the rule proposed.’ The object, in short, is one of fair notice.”) (internal citations omitted).

¹⁴ See *in the Matter of Amendment of Part 90 of the Commission’s Rules, Sixth Further Notice of Proposed Rulemaking*, WP Docket No. 07-100 (March 22, 2018) wherein the Commission sought comment, among other things, on whether to expand use of the Band to critical infrastructure industries and commercial entities, while ensuring prioritized use by public safety without interference. Nowhere in the Sixth FNPRM did the Commission suggest removing public safety from the spectrum altogether with no rational alternative and giving up its oversight and management of the spectrum on a fragmented basis to the states. *Id.* at 23-21.

interference.”¹⁵ Its abject failure then to even hint at the notion that it was contemplating taking the spectrum completely away from public safety (or allowing states to do so), placing the protection of the public at risk, and providing it to the states to manage on an individual basis with no guidelines and for any purpose, clearly defies its own statement to the public that the Commission’s goal in its rule modifications was to, among other things, “ensure that public safety continues to have priority” and that primary users must be protected “from harmful interference.” The action taken by the Commission in its Order was not adequately disclosed to the public for comment as required under the APA, and fully and squarely contradicts its own statement to the public regarding the Commission’s intent. As aptly stated by the Second Circuit,

“[A rulemaking] must describe the range of alternatives being considered with reasonable specificity. Otherwise, interested parties will not know what to comment on, and notice will not lead to better-informed agency decision making. Indeed, unfairness results unless persons are sufficiently alerted to likely alternatives so that they know whether their interests are at stake.”¹⁶

Within the Order, the Commission offers specific examples on how best to further utilize the 4.9 GHz Band, including expanding use of the Band to critical infrastructure industries and commercial entities or the ability of public safety to lease spectrum to third parties for both public safety or other use, neither of which provide a demonstrable cure for the stated deficiency and ultimately diminish the public safety interest. There is no reasonable argument that can be proffered here that commenters were provided adequate notice of the “alternatives being considered with reasonable specificity” so that they would be reasonably informed about what to comment on or understand the potential direction the Commission would take based on the record and the disclosures made in the Sixth FNPRM. Indeed, as clarified by the D.C. Circuit, “a

¹⁵ See Sixth FNPRM at 1

¹⁶ See, e.g., *Time Warner Cable Inc. v. FCC*, 729 F.3d 137, 170 (2d Cir. 2013) (citations and internal quotation marks omitted).

final rule is not a logical outgrowth of a proposed rule ‘when the changes are so major that the original notice did not adequately frame the subjects for discussion.’¹⁷ Notwithstanding, the Commission’s decision, in fact, represented a major departure from the original notice and topics set forth in the Sixth FNPRM and is thus materially and facially deficient under the APA¹⁸ On this ground alone, the Commission committed reversible error, and the Order should be fully vacated.

- b. There is Little to No Support in the Record for the Commission’s Action, and the Commission Failed to Adequately Consider and Address Material Comments in the Record from Public Safety, Including the PSSA, States and Localities, Advocating Against any Reallocation or Auctioning of the Spectrum.

In addition to failing to seek adequate public input into the Commission’s rule change, the Commission erred due to its failure to fully consider and address comments of key commenters within the public safety community, of which there are many, identify any significant support in the record for the Commission’s decision, or explain its decision not to propose rule changes that would have resulted in increased utilization of the 4.9 GHz Band by public safety.

- i. *The Commission did not Propose or Discuss any Changes to its Rules that would have Resulted in Greater Utilization of the Band by Public Safety Licensees.*

Despite significant comments in the record and the Commission’s own declaration of wanting to increase utilization of the 4.9 GHz Band, the Commission at no time discussed any proposal to revise its rules to better enable investment in the Band to increase public safety use. In particular, in response to the Commission’s Fifth Further Notice of Proposed Rulemaking

¹⁷ *Omnipoint Corp. v. FCC*, 78 F.3d 620, 631 (D.C. Cir. 1996) (quoting *Conn. Light & Power Co. v. Nuclear Regulatory Comm’n*, 673 F.2d 525, 533 (D.C. Cir. 1982)) (“[A] final rule is not a logical outgrowth of a proposed rule ‘when the changes are so major that the original notice did not adequately frame the subjects for discussion.’”).

¹⁸ See *Dissenting Statement of Commission Geoffrey Starks*, Paras. 4 and 5 (September 30, 2020). In addition, while PSSA believes any decision to cede authority over the 4.9 GHz Band to the states violates the APA, the Commission further erred in this regard by failing to ever raise in the proceeding the proposal that states that have diverted 911 fees to other state purposes are not eligible for 4.9 GHz Band licenses, ignoring the Commission’s notice and comment obligations.

(“Fifth FNPRM”), several commenters, including National Public Safety Telecommunications Council (“NPSTC”), submitted plans for the Commission’s consideration aimed at increasing utilization of the Band while maintain priority use by public safety.¹⁹

The APA requires the agency to consider all of the comments and materials filed in the record, and, in articulating its final decision, is obligated to respond to all “significant comments.”²⁰ Indeed, at least one court has described, “significant comments” as “those which raise relevant points and which, if adopted, would require a change in the agency’s proposed rule.”²¹

Moreover, in order to pass muster under the arbitrary and capricious standard when evaluating the record in support of its decision, an “agency... must examine the relevant data and articulate a satisfactory explanation for its action" including a "rational connection between facts and judgment”²² According to the Supreme Court, “[a]n agency changing its course by rescinding a rule is obligated to supply a reasoned analysis for the change beyond that which may be required when an agency does not act in the first instance.”²³ This was clearly not done in this case, which effectively amounts to a rescinding of the rule allocating the 4.9 GHz Band exclusively for public safety use.

The Commission emphasized in both its Fifth FNPRM, Sixth FNPRM, and the Order, that

¹⁹ See, e.g., Comments of the National Public Safety Telecommunications Council, Regional Planning Committee 8, Enterprise Wireless Alliance, Shared Spectrum Company, APCO International, the Forestry Conservation Communications Association, the International Association of Fire Chiefs, and the International Municipal Signal Association, Great River Energy, Wyoming Public Safety Communications Commission – Spectrum Work Group, City of Chicago, American Association of State Highway and Transportation Officials, City of Port Angeles, Washington, among others.

²⁰ See *Perez v. Mortg. Bankers Ass’n*, 575 U.S. ___, 135 S. Ct. 1199, 1203 (2015) (“An agency must consider and respond to significant comments received during the period for public comment.”).

²¹ *Am. Mining Cong. v. EPA*, 965 F.2d 759, 771 (9th Cir. 1992).

²² *Motor Vehicle Manufacturers Association of the United States, Inc. v. State Farm Mutual Automobile Insurance*, 463 US 31 (1983).

²³ *Id.* See also *Fed. Comm’n Comm’n v. Fox Television Stations, Inc.*, 132 S. Ct. 2307, 183 L. Ed. 2d 234, 80 U.S.L.W. 4494, 40 Media L. Rep. 1881 (2012) at 6 (“In the context of a change in policy ... an agency, in the ordinary course, should acknowledge that it is in fact changing its position and ‘show that there are good reasons for the new policy.’”).

it was seeking proposals for how to increase utilization of the 4.9 GHz Band, and in fact, until its Order, emphasized the goal of maintaining priority access by public safety. However, in the Order, the Commission completely failed to address the multitude of comments submitted by public safety and others that would have achieved the Commission’s previously stated goal. Rather, the Commission effectively ignored all such comments, and even if considered, failed to address the “significant comments” which proposed alternative regulatory structures for use of the Band, as clearly required by the APA. The Commission provided absolutely no rationale nor support for its arbitrary decision to not only not entertain any of the suggested approaches by public safety or other, but to transfer control to the states without any obligation that the states use the Band for public safety (except for potentially incumbent users) or ensure priority access by public safety entities. This decision defies logic and violates the law, and thus should be vacated in its entirety.

ii. The Commission Failed to Consider and Address all other “Significant Comments”, Most of Which Either Opposed or Failed to Support the Commission’s Ultimate Action.

As noted above, the requirements of the APA make it clear that the Commission erred in its failure to consider or address all “significant comments” in this proceeding before promulgating its rule change, which as noted above, was never proposed, nor even implied, in the record, and for which there is absolutely no material support by any commenter. Indeed, the comments filed both by organizations representing public safety and the states themselves raised significant *concerns* about taking the 4.9 GHz Band away from public safety and not otherwise providing guaranteed prioritized use without interference for its mission critical operations.²⁴ The PSSA filed an ex parte

²⁴ See *NOTICE OF EX PARTE of the City of New York* (June 18, 2019), which includes New York Police Department, New York City Transit, and the New York City’s Mayor Office, in which the “[c]ity expressed concerns about efforts to repackage or reallocate 4.9, citing the extensive use by the City. In particular, NYC noted the critical role the spectrum plays in NYPD’s counterterrorism efforts and camera system. NYCT explained how they utilize the spectrum below ground in the subway system to ensure safety and above ground with camera equipped NYCT buses. NYC explained how it uses the entirety of the spectrum allocated and that any reduction or interference in the 4.9 GHz *could have devastating effects on public safety operations*”) (emphasis added). *Comments of the State of Maryland* (July 6, 2018) (“Of significant importance to Maryland’s first responders, we believe that the 4.9 GHz band should continue to

in this proceeding, which included a petition signed by more than 830 public safety representatives from every state, the District of Columbia and two United States territories. This list includes Fire Chiefs, Sheriffs, Police Chiefs, Communications Directors, Public Safety Command staff, line personnel and representatives from the private sector that have signed this petition in support of, among other things, maintaining the 4.9 GHz Band for public safety use.²⁵ Moreover, the Commission itself recognized that “commenters overwhelmingly oppose giving non-public safety entities access by redesignating the band for commercial use.”²⁶ While the Commission ultimately stated that it would not redesignate the Band for commercial use, it effectively accomplished the same result in opposition to almost all commenters, by ceding control of the Band to the states to lease on a secondary market basis to all entities, including commercial users without mandating priority access for public safety. There can be no doubt, particularly during these difficult

support public safety communications *as a primary spectrum resource*) (emphasis added). *Id.* at 1; (“The State recommends that the 4.9 GHz spectrum *remain with public safety* until the record in Docket WP 07-100 is expanded to reflect changes and increases in use as the result of this NPRM”) (emphasis added). *Id.* at 2; *Comments of the Public Safety Communications Counsel* (“the PSCC strongly disagrees with proposals to either remove the band from public safety use or increase sharing with commercial carriers”). *Id.* at 1; (“The PSCC believes that it is vitally important that the Commission understand how the band is being used on a daily basis to help protect the lives and property of the citizens of the county. The band is important to public safety and there are no spectrum alternatives for public safety. The Commission should immediately dismiss the notion that the band would be put to a higher and better use by auctioning to the carriers. More spectrum for streaming video movies, video games, and music downloads does nothing to keep Americans safe”) *Id.* at 3; *Ex Parte of the Public Safety Spectrum Alliance* (September 18, 2020) (“The members of the PSSA are deeply concerned about the draft Report and Order recently released in connection with the above referenced Docket. For multiple reasons noted below, the PSSA believes that the recommended actions of the Commission to permit states to take control of and lease to commercial and other non-public safety entities the 4.9 GHz spectrum band (4.9 GHz Band or Band), places existing and future public safety broadband communications, and the communities they serve at risk. The existing and growing need for interoperable broadband communications for public safety remains paramount”). *Id.* at 1; (“While there is concern that the 4.9 GHz Band has been underutilized by public safety, this has not been due to a lack of interest or need for the spectrum, but rather the regulatory framework enabling its use. There are multiple public safety agencies reliant on this spectrum today, and more that would utilize such spectrum if the Commission revised the framework to make first responders’ use more seamless and effective). *Id.* at 1-2. See also, *Comments of the National Association of Police Organizations, the National Public Safety Telecommunications Counsel, APCO International, the City of Chicago, BayRICS, King County, Washington and the City Of Seattle, Washington, Chattanooga, Flathead County, Montana, Lake County Sheriff’s Office, Florida Region 9 Committee, City of Port Angeles, Washington, the American Association of State Highway and Transportation Officials, City of Chattanooga/Tennessee Valley Regional Telecommunications System, the Forestry Conservation Communications Association, the International Municipal Signal Association, and the International Association of Fire Chiefs* (all of which oppose expanding use of the 4.9 GHz Band beyond public safety use).

²⁵ See *Notice of Written EX PARTE of the Public Safety Spectrum Alliance* (September 21, 2020).

²⁶ See *Order* at 17.

economic times for most state budgets, that commercial leasing of the spectrum for a significant price will potentially create the wrong incentive in how the spectrum is utilized.

According to the standard established by the 9th Circuit, the Commission was required to address all comments that, if adopted would have resulted in the Commission needing to change its proposed rule. This was not done. In addition, the Commission provided no substantive rationale or support in the record for its ultimate decision which materially strayed from its stated purported goals and proposed approaches in the Fifth and Sixth FNPRMS. These failures amount to a clear violation of the APA's requirements and constitute reversible error.

c. The Order Improperly Fails to Sufficiently Consider the Impacts to Public Safety or Provide any Support that its Decision will Result in Increased Band Usage

i. *The Commission's Order Does Not Adequately Protect the 4.9 GHz Band for Public Safety Communications*

As previously noted, in taking action impacting wireless communications, the Commission is obligated to consider the impact on the safety of the public.²⁷ The subject matter of this proceeding directly implicates public safety entities, and, by extension, the protection of the communities they serve. Yet, despite the clear need to prioritize the impact on public safety, the Commission effectively turned its back on the public safety community and by extension the communities they serve, by potentially taking the 4.9 GHz completely out of the hands of public safety and ceding its traditional authority to manage spectrum on a nationwide basis to each of the states to manage on a fragmented, piecemeal basis, without any guarantee, other than for existing incumbent use, that public safety would retain the ability to leverage the Band for future mission critical services.

The Commission's Order transfers to each of the states the ability to lease the Band to all

²⁷ See *Mozilla Corp. v. FCC*, 940 F.3d 1 at 93 (D.C. Cir. 2019).

entities, including commercial entities, without any guarantee of access to the spectrum by public safety (as well as preemption of non-public safety entities). Consequently, this grants complete discretion of the appointed state lessor to determine which entities, and on what terms, the 4.9 GHz Band may be leased. This runs in stark opposition to the recommendations of the vast majority of commenters in the record,²⁸ and in stark contrast to the Commission's own analysis and decision when it designated the 4.9 GHz Band for public safety use. In that Memorandum Opinion and Order and Third Report and Order, the Commission specifically rejected commenters arguments that a state licensing scheme would be advantageous for 4.9 GHz band operations, noting that with such a state licensing scheme, "licenses to use the 4.9 GHz band would be given directly to each state", and "[e]ach state would then administer the spectrum within its jurisdiction. This task would include authorizing individual entities to utilize the spectrum, and would also entail coordinating use of the spectrum among licensees."²⁹ This description is identical to the action the Commission has now in fact taken in the Order, making a complete about-face in its positioning about state control of Federal spectrum.

This unprecedented action would cede spectrum management of this nationwide federal resource to each of the states without any guidance, rules, or regulations about how to ensure continued and ongoing interoperable use of the Band on both a local geographic, interstate, and nationwide basis by public safety. Furthermore, it fails to ensure public safety use of the Band will be accomplished with preemption and without interference to enable true mission critical services. To the contrary, with the current impact of Covid-19 on state budgets, states may in fact be incented to extract the maximum dollar amount for such spectrum, and offer the

²⁸ See *Supra* at footnote 22.

²⁹ See Memorandum Opinion and Order and Third Report and Order at 14 and footnote 94, WT Docket No. 00-32 (May 2, 2003) citing Second R&O and FNPRM, 17 FCC Rcd at 3976 ¶ 47

spectrum only on such terms that can be met by large, commercial enterprises, potentially leaving public safety without any practical future use of the Band. Indeed, the Chairman himself highlighted that states would be free to simply provide a statewide lease to a single carrier, which is then also free to use the Band for any purpose, including leveraging non-standard proprietary technologies, both undermining potential interoperability, economies of scale and innovation and increasing costs to public safety.³⁰ Under no exploration of the record was this result ever anticipated nor supported by any commenters.

This notion was emphasized by Commissioner Rosenworcel in her dissenting statement, where she noted:

In this decision we abandon this course and decide that these airwaves no longer need to support public safety. We clear the way to kick first responders off this spectrum and then cede this agency's authority over the band to state licensees who will be empowered to lease these airwaves to third parties to generate revenue. This adds up to a reduction in public safety communications with a more fragmented market for equipment and a 5G future with a whole bunch of the same problems we had with leases in the 2.5 GHz band that—remember—we went to great efforts to dismantle in the not-too-distant past.³¹

ii. The Order Fails to Establish a Nationwide Governance Model for the 4.9 GHz Band to Ensure Full Interoperability, Open Standards, Security and Prioritized Use by Public Safety

As already noted herein, the Commission has made a decision in the current Order to simply permit states to appoint state lessors that have almost unilateral discretion to lease all or a portion of the 4.9 GHz Band to any and all takers on terms and conditions and according to any rules such state determines is best, notwithstanding the needs of or impacts on public safety or the public interest. This is not only a local issue within each state, but a nationwide issue that could result in a veritable patch work of rules, processes, and terms that govern the use of the spectrum without any guarantee of (i) interoperability within and across state lines or the

³⁰ See *Statement of Chairman Ajit Pai* at Para. 2.

³¹ See *Dissenting Statement of Commissioner Jessica Rosenworcel* at Para.4 (September 30, 2020).

Canadian border, (ii) interference protection, (iii) appropriate security, (iv) use of open standards, (v) prioritized public safety use, (vi) build out and service in rural areas, or (vii) consistency in technological deployment and assurance that deployed technologies keep up with technological advancement (such as 5G). These are just a few of the issues that need to be addressed in connection with any governance model that is put in place to manage use of spectrum that is being relied upon by public safety. Unless and until a record is fully developed on such issues, it is irresponsible of the Commission to enact such a material change in the framework governing the 4.9 GHz Band.

Indeed, the only discussion of a potential future governance model by the Commission is limited in the Seventh FNPRM released with the Order to issues associated with (a) ensuring states obtain a statewide license in the 4.9 GHz Band, (b) that they do not inappropriately divert use of 911 fees, (c) consideration of potential statewide band management to oversee licensing to public safety in the future, and (d) further development of possible leasing procedures to improve coordination. There is no mention of any of the critical governance issues needed to ensure secure, interoperable, cost efficient, and nationwide use of the Band for public safety. Further, even if the Seventh FNPRM is expanded to address these issues, it could take years to resolve, long after the spectrum has already been handed to the states and commercial entities to do with as they please. It is thus critical that a governance framework be developed long before there is any consideration of taking the 4.9 GHz Band away from public safety and opening it up to effectively unregulated use on a disparate and uncoordinated state-by-state basis.

iii. The Commission's Proposed Plan Does Not Provide any Rules or Commercial Incentives to Ensure the Build-out and Utilization of the 4.9 GHz Band for Public Safety or Commercial Users, Undermining the Purpose of the Order

The purportedly primary objective of the Commission in creating a new regulatory regime for the management of the 4.9 GHz Band is to maximize use of the 4.9 GHz Band, which the

Commission asserts is underutilized. Yet, the Commission should focus its efforts on maximizing public safety's use instead of pursuing an experiment in the Band in which the Commission asserts, without justification, that commercial use of the band will somehow increase public safety use.

History has proven that use of spectrum for commercial as well as public safety use when managed on a state-by-state basis in no way guarantees increased spectrum utilization, other than arguably in densely populated urban areas, where the spectrum will have commercial value. This is precisely why no state elected to opt-out of the NPSBN. As the FNA demonstrated while preparing its RFP and during its state consultation efforts in connection with use of Band 14, the value of spectrum is greatly diminished in other than densely populated areas, and thus, for rural and other states without sufficient population densities, which arguably represents approximately 90% of the U.S. market, it is unlikely that providers of technology products and services would invest in the necessary infrastructure without an adequate guaranteed return on such investment. Spectrum by definition is inherently a nationwide resource, and when used on a nationwide basis, must be managed in a way that incentivizes industry to invest in infrastructure in all areas of the country, including less densely populated rural areas. This requires the ability of providers to leverage the spectrum value derived from densely populated areas to enable investments in rural, less densely populated geographies. This is why the Middle Class Tax Relief and Job Creation Act of 2012 ("Spectrum Act") mandated that the ultimate provider of the NPSBN have rural build out requirements, as there was a recognition that no service provider is going to build where uneconomical to do so.

Further, the Commission reaches the unsupported conclusion in the Order that the "potential revenue streams from leasing may also increase the ability of states to invest in

equipment for this band.”³² However, there is no evidence in the record nor commitment by any state to reinvest any revenues generated from the lease of the spectrum back into communications infrastructure supporting the 4.9 GHz Band. Indeed, during the state consultation process by the FNA, it became clear that several states had intended to use any such revenues to reduce general state deficits and to supplement operating budgets. This is likely even more true today with the continuing pandemic and its impact on state and local budgets. However, the Spectrum Act made clear that all revenues generated from use of the Band 14 spectrum had to be reinvested back into the NPSBN.

It is thus clear that there must either be a commercial incentive to build, or a regulatory mandate with appropriate funding to ensure full, nationwide utilization of the 4.9 GHz Band. Simply hoping there will be greater utilization of the band by permitting commercial and other entities to use the Band on a state-by-state basis is not a rational approach for the optimized use of the spectrum, and provides no guarantee that utilization will increase over that today. It is also not anywhere supported by the record. In fact, those states that did file comments did so in support of maintaining the Band for public safety use – not transferring control of the Band to the states to figure out how to manage and to lease to commercial and other entities.³³

With the appropriate governance framework and financial and other incentives, like those implemented in the case of FirstNet, we would expect, like Band 14, the 4.9 GHz Band utilization by public safety to increase significantly. Using this history as a guide, the Commission can be instrumental in helping to formulate just such a framework. Unfortunately, the current Order falls woefully short of providing such guidance or a rational proposed approach.

³² See *Order* at 7

³³ See *NOTICE OF EX PARTE of the City of New York; Comments of the State of Maryland; Comments of BayRICS, Flathead County, Montana, Lake County Sheriff's Office, Florida Region 9 Committee, City of Chattanooga/Tennessee Valley Regional Telecommunications System.*

iv. The Order provides No Protections from Potentially Harmful Interference, putting Public Safety Communications at Significant Risk

The Commission is relying completely on the voluntary coordination and good will of users of the Band to avoid harmful operational interference. While this approach may have been adequate when only public safety entities maintained use and control of Band, as such entities have a common goal of providing mission critical services, such a framework between and among public safety and commercial entities provides no assurance that public safety communications will not be materially impacted, or that public safety will have any timely redress in the case of interference.

Indeed, Congress clearly indicated that such a regime was not adequate to protect public safety use of Band 14 spectrum when it mandated the implementation of the NPSBN. In the Spectrum Act, which is responsible for the NPSBN, Congress explicitly required that public safety communications be afforded full priority and preemption of Band 14 over secondary commercial use. Congress recognized that, without such mandate and the necessary technical, operational, and financial incentives to implement the same, public safety communications could be compromised. In contrast, the Commission's Order fails to even grant public safety further guaranteed access to the Band, let alone prioritized use, leaving it to each state or its sub-lessee carrier to determine whether to put first responders on par with commercial entities.

Despite mandating that the 4.9 GHz Band should no longer be dedicated for public safety use and now open to commercial and other use, the Commission has failed to provide any guidelines to ensure continuity of mission critical operations for public safety licensees currently using the Band as well as for public safety entities seeking to use the Band for future operations. The Commission has explicitly refrained from ensuring such protections from harmful interference exist, requiring only "lessees to adhere to the same informal coordination required

of existing licensees.”³⁴ When a commercial lessee’s financial bottom line is at stake, there can be no guarantee that public safety communications will be voluntarily protected.

The record in this proceeding is devoid of any facts, discussion or analysis about an appropriate regulatory and governance framework that ensures the protection of public safety use of the spectrum on a fully prioritized basis and not subject to harmful interference. In fact, as mentioned above, the Commission affirmatively declined to grant guaranteed or priority access to public safety agencies, and this issue is not addressed by the Commission in the Seventh FNPRM.

v. The Order Effectively Eliminates any Opportunity for Public Safety to Leverage the 4.9 GHz Band for Critical 5G Operations

Prior to the Commission’s Order, public safety had effectively 2 options to leverage wireless spectrum for dedicated cellular operations - Band 14 through FirstNet and the 4.9 GHz Band. While Band 14 and the NPSBN have proven to be a highly effective and critical asset for public safety LTE operations, it suffers from one critical deficiency – it is not particularly effective for operation of 5G networks. As low bandwidth spectrum, it does not support the necessary propagation characteristics to enable the speed, throughput, and coverage of existing and planned 5G networks. Alternatively, as spectrum falling within the mid-band, 4.9 GHz is significantly better suited to offer 5G capabilities. By removing the 4.9 GHz Band from dedicated, or even prioritized, public safety use, the Commission has effectively foreclosed the opportunity for public safety to utilize this spectrum for mission critical 5G services, eliminating the only 5G capable spectrum that, until now, had been available for public safety to rely on.

5G functionality is expected to be the future of public safety cellular communications, supplementing use of 4G LTE services, to enable high speed, low latency applications.

³⁴ See Order at 13-14.

Specifically, 5G will provide ultrafast speeds, facilitating much faster data transmission than 4G LTE networks, and enabling the development of new applications that leverage rich media, such as augmented reality, virtual reality, and video streaming. In addition, it will offer extremely low latency, allowing true real-time data streaming and transfer necessary for use of autonomous vehicles, bomb and hazardous material detection and remediation, and mobile video surveillance capabilities. It will support connectivity to literally thousands of IoT devices given its high capacity, and enhance network positioning capabilities – a feature critical for situational awareness. 5G further improves network redundancy due to the number of available base stations, providing a self-healing capability, with the ability to maintain connectivity when base stations are lost through beam re-direction and auto tuning, or in the case of core failures with intelligence down to the base station level.

Public safety's ability to access dedicated spectrum quickly contributes to improved reliability, latency and a better user experience for first responders. Solutions that use spectrum that is NOT dedicated to first responders are unable to offer the quality of service needed by first responders involved in mission critical incidents.

As more fully discussed below, novel 5G solutions for public safety such as those enabled by mobile Augmented Reality ("AR"), Virtual Reality ("VR"), and Artificial Intelligence ("AI") will be ready to serve public safety as 5G devices come to market. We cannot allow the advancement of public safety to be held back due to the lack of dedicated 5G ready spectrum resources when, with minor rule modifications, they are already in their hands through the current dedicated allocation of 50MHz of 4.9GHz spectrum.

Augmented Reality – AR will allow for enhanced capabilities for public safety such as the overlay of key historical resources within the context of real-time incidents playing out before a first responder. For example, a law enforcement bomb squad member responsible for

defusing an improvised explosive device in a small town in Kansas could overlay the images of a previously successful diffusion of the same type of device a year earlier on the battlefield in Afghanistan; an emergency manager on the Florida coast could use historical images and blueprints for an enhanced understanding of damaged critical infrastructure after a hurricane; and a Wildland Fire Team Commander could use an AR overlay of streaming video and real-time weather and wind information along with records of previous fires in the area to predict fire movement and better position her team for maximum effect and safety.

Virtual Reality – VR will allow public safety to simulate otherwise life-threatening situations for training and readiness. For example, fire fighters could simulate how to escape a roof collapse; police officers could simulate de-escalation tactics with a knife wielding aggressor; and paramedics could simulate the extraction of patients under threat of heavy gunfire without exposing themselves to real harm.

Artificial Intelligence – AI will greatly enhance public safety decision making at all levels. For example, real-time video anomaly detection could warn a law enforcement officer of weapons hidden underneath clothing that she could not see with the naked eye from 200 yards away; real-time sensor data could alert a Fire Chief to unknown chemical hazards as he directs resources into a major factory fire; or real-time video and coordinated gunshot detection equipment could alert an Emergency Communications Center Official to a crime that just occurred and allow them to track and direct responding officers to a suspect, direct a drone carrying needed medical supplies to the scene and allow the responding paramedic to provide instruction to bystanders to apply a tourniquet to the victim while they are on the way.

In sum, 5G offers several powerful features that can enable new life saving applications and ensure secure and reliable communication for the public safety community. The resulting improved coverage, throughput, accessibility, and resilience of the networks will improve

communications and save lives. Unfortunately, under the Commission's Order, public safety will effectively be shut out from these life-saving capabilities on the only 5G capable spectrum that has been historically available to public safety on a dedicated basis – the 4.9 GHz Band. Public safety simply cannot risk lives on a state patchwork of differing rules and regulations regarding use of the band, no guaranteed priority use or interoperability, and the real potential for interference, all of which will create uncertainty and a spectrum management structure that cannot be relied upon for mission critical operations. The Commission's decision will not only disincentivize 5G deployment within the Band given the lack of nationwide governance and economies of scale but will set public safety back years in its ability to leverage the newest available technologies to save lives. These are the failed ways of the past and just bad policy.

II. The Commission Should Vacate the Order and Seventh FNPRM in their Entirety and Direct the Public Safety and Homeland Security Bureau to Work with Petitioners to Supplement the Record to Appropriately Address the Proposals of the PSSA and other Public Safety Entities to Increase Spectrum Utilization While Preserving Priority Usage of the Band.

Petitioner strongly believes the Commission should vacate its Order and 7th FNPRM and direct the Public Safety and Homeland Security Bureau to work with Petitioners and the public safety community to develop a rational path forward that:

- Is truly likely to increase utilization of the 4.9 GHz Band
- Preserves fully prioritized use of the 4.9 GHz Band for public safety
- Ensures interoperability on a nationwide basis
- Provides for a formal mechanism to ensure non-interference with public safety operations
- Creates a governance framework that creates certainty, uniformity, and predictable spectrum management so public safety and the vendor community can safely and reliably invest in the Band to achieve economies of scale, reduce purchasing costs, increase Band utilization, and leverage the Band for true mission critical operations.

III. Conclusion

For the foregoing reasons, the Commission should reconsider and vacate its 4.9 GHz Order and 7th FNPRM to the extent described above.

Respectfully submitted,

PUBLIC SAFETY SPECTRUM ALLIANCE

/s/ Chief Jeffrey D. Johnson (Ret.)

Member

800-785-3473

mellis@theptsbta.org

December 29, 2020