

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

To: The Commission

by the FCC and its future plans may be ambitious, but this 50 MHz allocation can and should support additional primary uses, including, in EWA’s opinion, a somewhat expanded definition of CII. EWA also recommends that the assignment of spectrum within this allocation be managed by entities that have demonstrated to the FCC the technical and financial capability of carrying out that function.

I THE RECORD SUPPORTS PRIMARY CII ACCESS TO THE 4.9 GHz BAND.

More than five years ago, in response to the initial Commission inquiry into the utilization of the 4.9 GHz band, representatives of public safety and CII entities collaborated on a recommendation for immediate, primary CII access to a portion of the band with the possibility of expanded access in the future. This recommendation was included in the 2013 report filed by the National Public Safety Telecommunications Council (“NPSTC”).²

Most parties still support that recommendation. NPSTC, which is comprised of 16 public safety organizations, stated that it “stands by that recommendation.”³ The American Association of State Highway and Transportation Officials (“AASHTO”), a NPSTC member, filed separate Comments in which it stated that, “AASHTO fully concurs with allowing Critical Infrastructure Industry entities into the band consistent with the NPSTC proposal.”⁴ In Comments filed jointly by the Telecommunications Subcommittee of the American Petroleum Institute (“API”) and the Regulatory and Technology Committee of the Energy Telecommunications and Electrical Association (“ENTELEC”), those organizations advised that “our membership overwhelmingly

² 4.9 GHz National Plan Recommendations, Final Report, filed by National Public Safety Telecommunications Council in a letter from Ralph A. Haller, Chair, NPSTC, to Marlene H. Dortch, Secretary, Federal Communications Commission, dated October 24, 2013 (“NPSTC Report”).

³ NPSTC Comments at 22.

⁴ AASHTO Comments at 3. AASHTO disagreed with the EWA proposal to allow additional business enterprise, but not commercial, entities to operate in the band. *Id.*

feels that the 4.9 GHz band offers the Commission a great opportunity to provide broadband spectrum that is needed by critical infrastructure....”⁵

The Comments filed jointly by the Utilities Technology Council (“UTC”), the Edison Electric Institute (“EEI”), the National Rural Electric Cooperative Association (“NRECA”) and the GridWise Alliance (“GridWise”) also strongly support CII access as recommended in the NPSTC Report.⁶ They present a compelling case for expanded eligibility and describe in detail the applications their members would deploy on this 50 MHz of broadband spectrum.⁷ The parties reminded the FCC that no broadband spectrum has been dedicated for utility use and emphasized that, “although the 4.9 GHz band will help [meet their needs], it will not meet all of utility additional spectrum requirements....”⁸ Southern Company Services, Inc. (“Southern”) expressed the same view. It noted that the FCC’s own National Broadband Plan recognized the similar communications needs of utilities and public safety agencies.⁹ It quoted the NPSTC Plan as agreeing that “CII plays a vital role in incident response to protect life and property.”¹⁰

Although it too is a member of NPSTC, the Association of Public-Safety Communications Officials-International, Inc. (“APCO”) did not reaffirm its concurrence with the NPSTC Report with regard to CII eligibility. Arguing that adopting limitations on CII use would be consistent with the policies governing public safety’s 700 MHz allocation, APCO urged that any CII use of 4.9 GHz spectrum (i) be limited to protection of life, safety, and property, rather

⁵ API/ENTELEC Comments at 2.

⁶ UTC/EEI/NRECA/GridWise (“Joint Comments”) at 1.

⁷ *Id.* at 7-10

⁸ *Id.* at 3. EWA views the 4.9 GHz band as complementary to the 900 MHz realignment proposal it made jointly with pdvWireless, Inc. to create a fixed and mobile broadband option for CII and other private enterprise users while retaining spectrum for continued narrowband use. *See* Petition for Rulemaking of the Enterprise Wireless Alliance and Pacific DataVision, Inc., RM-11738 (filed Nov. 17, 2014); *see also* Review of the Commission’s Rules Governing the 896-901/935-940 MHz Band, WT Docket No. 17-200, *Notice of Inquiry*, 32 FCC Rcd 6421 (2017).

⁹ Southern Comments at 7, citing Federal Communications Commission, *Connecting America: The National Broadband Plan* (March 16, 2010).

¹⁰ *Id.*

than for general business purposes, and (ii) be secondary and preemptible by public safety.¹¹ APCO also opposed expanding even this very limited eligibility beyond CII to other private enterprise users.¹²

In its Comments, EWA recommended that all business enterprise entities or, at a minimum, entities classified as CII by the Department of Homeland Security (“DHS”), be eligible for 4.9 GHz spectrum.¹³ APCO may not wish to share with any users other than those providing direct support of public safety activities, but EWA submits that neither the prior 15-year use of the band by public safety exclusively, nor the record at this stage of the proceeding supports such limited use. For one thing, that would lead to the anomalous result that a utility operated by a city or county and eligible as public safety under Rule Section 90.20, would be permitted to use 4.9 GHz spectrum for any activity, not only those related to the protection of life, safety, and property while an investor-owned utility would be denied access to 4.9 GHz except when working with a governmental entity as part of an emergency response. The same dichotomy would arise between public and private educational institutions. It also would mean that all governmental activities, however remote from the actual protection of life, safety, and property, would qualify for 4.9 GHz usage. EWA is not suggesting that non-emergency governmental activities should be prohibited in this band, but that the band can and should support a broader range of activities to maximize its utilization.

Telecommunications policy today demands spectrum sharing to accommodate a broader array of deserving user requirements and to promote efficient use of the spectrum. 50 MHz of spectrum below 5 GHz remains a substantial allocation. Since a 15-year reservation for public safety-related activities exclusively has not allowed the band to achieve its full potential, it is

¹¹ APCO Comments at 12-13.

¹² *Id.* at 13.

¹³ EWA Comments at 6-7.

time to open the band to other entities whose operations are considered critical to the nation's economy and security.

In practical terms, most non-public safety entities that would be likely to have a need for and willingness to invest in a 4.9 MHz system would qualify as CII under the FCC rules. But the DHS definition recognizes the vital importance to the nation of enterprises such as airlines and major manufacturing plants that also might require licensed, secure, geographically limited, self-provisioned broadband facilities.¹⁴ Including them as eligible for 4.9 GHz spectrum is highly unlikely to preclude any public safety entity from securing the capacity it requires in this band. It will promote a more robust equipment market and increased innovation that will redound to the benefit of the public safety community.

II THE FCC SHOULD ADOPT A 4.9 GHz BAND PLAN.

EWA agrees the lack of other than *ad hoc* band management has inhibited more intensive use of the 4.9 GHz band. Parties considering making a substantial investment in wireless communications need assurance that they will be able to operate without experiencing or causing interference. This is true for all business enterprises as well as public safety entities. The record suggests substantial support for the band plan recommended by NPSTC, which EWA also endorses.

APCO takes a contrary view. It urges the Commission not to specify a band plan and, instead, leave to public safety organizations such as APCO, NPSTC and the National Regional Planning Council the task of developing a national frequency coordination plan with the

¹⁴ The CBRS allocation at 3.5 GHz undoubtedly will address certain private enterprise communications needs, even CII requirements. However, it is uncertain whether auctioned Priority Access Licenses will be available in geographic sizes that are congruent with the service areas required by such users, and unlicensed General Authorized Access spectrum is only suitable for non-critical uses.

opportunity for regional deviations. This is well beyond the technical flexibility proposed by the FCC in the Sixth FNPRM. As the Commission explained:

While we tentatively conclude that we should not adopt mandatory technical standards for the 4.9 GHz band...we seek comment on how to encourage voluntary implementation of technical standards for equipment in the band that can provide certainty for public safety users **while also providing appropriate incentives for manufacturers to develop innovative and cost-effective equipment that will encourage interoperability, discourage fragmentation, and reduce equipment costs through higher economies of scale.**¹⁵

It is difficult to envision the development of a robust 4.9 GHz equipment marketplace if manufacturers do not have some level of assurance about how much spectrum will be available for what applications in which geographic areas. That will be particularly problematic if, as proposed by APCO, all public safety operations not only are protected, but have the right to trigger ruthless preemption of other uses. That type of tiering arrangement is an unworkable spectrum sharing approach that provides no incentive for CII and business enterprise entities to invest in this underutilized capacity for their wireless operations. The threat of ruthless preemption, even if the band was managed by professional spectrum managers whose objective would be to promote adherence to prudent spectrum sharing and interference prediction and avoidance practices, provides little confidence that operations will not be subject to unpredictable interruptions. Why would any CII or other private enterprise user whose operational requirements often involve the same safety, reliability, and security demands as public safety entities risk entering into such a perditionous arrangement. EWA doubts that equipment manufacturers will be encouraged “to innovate and develop an expanded device ecosystem for the band”¹⁶ under the sharing conditions dictated by APCO, leaving the public safety community with the same equipment challenges it states have stymied more intensive

¹⁵ Sixth FNPRM at ¶ 46 (emphasis added).

¹⁶ APCO Comments at 16.

utilization of the band over the past 15 years. Preserving 4.9 GHz as a protected public safety enclave may ensure ample broadband spectrum for all their requirements, but it will not resolve the fundamental issue that a limited user base struggles to attract technology investments.

III THE FCC SHOULD ADOPT ITS PROPOSAL TO REQUIRE QUALIFICATION SHOWINGS FOR 4.9 GHz FREQUENCY COORDINATORS.

Led by NPSTC, the majority of public safety entities have endorsed primary access to some portion of the 4.9 GHz band at least by CII entities. However, they agree with APCO that frequency coordination should be reserved for the current public safety frequency advisory committees (“FACs”): AASHTO; APCO; FCCA (Forestry Conservation Communications Association); IAFC (International Association of Fire Chiefs); and IMSA (International Municipal Signal Association). They argue that only public safety FACs have the technical expertise and in-depth knowledge of public safety operations to handle what they describe as highly complex spectrum assignment responsibilities.

Whatever eligibility, band plan, and other rules the FCC adopts for 4.9 GHz, EWA questions the wisdom of awarding that responsibility to the five public safety FACs without evaluating their qualifications for performing that task. The policies governing the current Part 90 frequency coordination process have been in place since 1958 and were formalized in 1986.¹⁷ Prior to that formalization, the FCC in 1969 announced general principles applicable to organizations that wished to provide frequency coordination services: Some of the principles are descriptive, while others are prescriptive.¹⁸ When it formalized the frequency coordination process in 1986, the FCC stated the following:

¹⁷ See Frequency Coordination in the Private Land Mobile Radio Services, *Report and Order*, PR Docket No. 83-737, 103 FCC 2d 1093 (1986) (“Coordination Procedures Order”).

¹⁸ See Frequency Coordination in the Industrial Radio Services, 16 FCC 2d 305 (1969).

Where more than one entity requested certification, we looked first to ascertain whether the organization was representative of users in the radio service it proposed to coordinate. Second, we examined the overall plan to coordinate the service (e.g., how frequency recommendations would be made and whether all applicants would be treated equally). Third, we checked to see if the entity had experience coordinating frequencies in the service involved or any technical expertise in engineering land mobile stations. Finally, we took into consideration whether the entity had nationwide coordination capability, a nationwide data base of users in the service it proposed to coordinate, and whether the data base was automated.¹⁹

The FCC has not re-evaluated the qualifications of any FCC-certified FAC since then.

The capabilities that caused the FCC to deem an organization qualified to perform coordination functions in 1969 and even in 1986 bear little resemblance to today's requirements and offer no assurance that an organization is prepared to handle what the public safety community itself expects to be exceedingly complex technical analyses at 4.9 GHz.²⁰ The fact that some, or even perhaps all, users will be public safety entities does not mean that only a public safety FAC can conduct effective frequency coordination. It is the technical parameters of the proposed system and the parameters of other 4.9 GHz operations in the area, all data that can be made available to any entity, and not the identity of the user that will determine the appropriate frequency recommendation. In the end, the quality of that recommendation will depend on the sophistication and effectiveness of the tools used by the coordinator.

For that reason, EWA strongly supports the Commission's proposal to require entities that wish to coordinate applications in this band to submit their qualifications, along with a coordination plan and a demonstration of 4.9 GHz expertise specifically for FCC consideration.²¹ The Commission then can certify the proponents it determines to be qualified as it has done, for

¹⁹ Coordination Procedures Order at ¶ 70 (citation omitted).

²⁰ Some public safety FACs rely largely on volunteers to review applications and make frequency recommendations.

²¹ Sixth FNPRM at ¶28.

example, for Spectrum Access System (“SAS”) Administrators in the 3.5 GHz band.²² A similar approach was used before the FCC selected EWA to be the Medical Body Area Networks (“MBAN”) Frequency Coordinator pursuant to a Memorandum of Understanding between the FCC and EWA and in multiple other proceedings.²³ Having a history of serving as a public safety frequency coordinator is relevant of course, but should not, by itself, serve as the single determinant for selection as a certified frequency advisory committee in the 4.9 GHz band, especially if the utilization of the band is enhanced through expanded eligibility and multiple vendor participation.

²² See, e.g., *Amendment of the Commission’s Rules with Regard to Commercial Operations in the 3550-3650 MHz Band*, Report and Order and Second Further Notice of Proposed Rulemaking, GN Docket No. 12-354, 30 FCC Rcd 3959 (2015); see also *Wireless Telecommunications Bureau and Office of Engineering and Technology Establish Procedure and Deadline for Filing Spectrum Access System Initial Commercial Deployment Proposals*, *Public Notice*, GN Docket No. 15-319, DA 18-783 (rel. Jul 27, 2018). The FCC used a similar process for certifying SAS Administrators for TV White Space operations: *Unlicensed Operation in the TV Broadcast Band*, ET Docket No. 04-186, *Order*, 26 FCC Rcd 5543 (2011).

²³ See, e.g., *Wireless Telecommunications Bureau Opens Filing Window for Requests to be the Frequency Coordinator for Medical Body Area Networks*, *Public Notice*, 29 FCC Rcd 13750 (WTB 2014); *Wireless Telecommunications Bureau Opens Filing Window for Requests to Be a Frequency Coordinator in the Wireless Medical Telemetry Service*, *Public Notice*, 15 FCC Rcd 19038 (WTB 2000); *Wireless Telecommunications Bureau Opens Filing Window for Proposals to Develop and Manage Independent Database of Site Registrations by Licensees in the 71-76 GHz, 81-86 GHz and 92-95 GHz Bands*, *Public Notice*, 19 FCC Rcd 4597 (2004); see also *Wireless Telecommunications Bureau Announces that the Enterprise Wireless Alliance May Begin Frequency Coordination of MBAN Equipment*, *Public Notice*, 30 FCC Rcd 12367 (2015) see also Memorandum of Understanding between the FCC and EWA dated October 23, 2015.

IV CONCLUSION

EWA urges the Commission to adopt rules that will promote the more robust utilization of this band under rules that are consistent with the recommendations herein.

Respectfully submitted,

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