

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

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

To: The Commission

JOINT COMMENTS

The undersigned parties (“Parties”) represent a broad segment of the public safety, business enterprise, and critical infrastructure industry (“CII”) entities that rely on spectrum to meet their day-to-day responsibilities serving the American public. They have decades of experience in Federal Communications Commission (“FCC”) matters involving spectrum allocations, frequency coordination, licensing/leasing activities, and other matters overseen by the FCC. Most of the Parties already are on record in support of a coordinated nationwide approach to the 4.9 GHz band by vesting centralizing management in a national band manager and adopting rules that identify current and future licensing of public safety systems in the band.¹ Most also support the FCC’s decision to maintain public safety primacy at 4.9 GHz.² The comments below are intended to endorse those FCC decisions while, in response to the FNPRM, recommending rules the Parties believe will also promote non-public safety utilization of the band, thereby supporting a more robust equipment marketplace, without compromising public safety’s primary position and investment in the band.

¹ See American Petroleum Institute, Enterprise Wireless Alliance, Forestry Conservation Communications Association, International Municipal Signal Association, National Sheriffs’ Association, and Utilities Technology Council *ex parte* letter, WP Docket No. 07-100, filed Aug. 25, 2022.

² *Amendment of Part 90 of the Commission’s Rules*, WP Docket No. 07-100, Seventh Report and Order (“R&O”) and Ninth Further Notice of Proposed Rulemaking (“FNPRM”), FCC 23-3 (rel. Jan. 18, 2023); *see also Amendment of Part 90 of the Commission’s Rules*, WP Docket No. 07-100, Erratum (rel. Feb. 22, 2023).

I. The Proposed Public Safety Licensing and Lease Options Should be Supplemented with a Non-Public Safety, Non-Commercial License Model for Unassigned Spectrum

The R&O established a centralized framework overseen by a national band manager, a framework intended to retain public safety's priority status while spurring innovation, driving down costs, and making more efficient use of the 4.9 GHz band.³ The granular details of current and future public safety systems will be submitted to and maintained in the FCC's Universal Licensing System ("ULS") database.⁴ It also adopted a formal frequency coordination process as has been used for decades in the Part 90 radio services and will assign to the band manager the responsibility for performing that coordination function. Finally, it authorizes the band manager to allow non-public safety access on a secondary leased basis, subject to public safety priority and preemption rights.⁵

The Parties agree that the FCC's objectives will be served by adopting a more traditional coordination and licensing model for this band. Decades of experience confirm that when proposed systems are coordinated to avoid causing interference to existing operations, all parties benefit. That approach has been the foundation of licensing fixed and mobile private systems, including public safety systems, for many years. Under the guidance of a national band manager and adoption of the 4.9 GHz band plan it is responsible for developing, the parameters of existing public safety systems will be documented in ULS⁶ and protected from interference by new systems through the coordination process.⁷

³ R&O at ¶ 16.

⁴ *Id.* at ¶¶ 30-35.

⁵ *Id.* at ¶¶ 28-29.

⁶ The Parties agree that one year is a reasonable amount of time for current users to enter this data in ULS.

⁷ Public safety and other potential users of this spectrum are familiar with coordination and FCC licensing fees. While the specific fees will need to be determined, they are not likely to be a matter of concern to those investing in the equipment and other costs associated with installing and operating a 4.9 GHz system.

The Parties also support non-public safety operations in the band consistent with the modifications proposed herein. It has long been the position of many of the Parties that non-commercial enterprise entities, including those classified as Critical Infrastructure Industry (“CII”), have a lengthy history of co-existing with public safety licensees in other bands. Their coverage and operational requirements often are similar. They frequently work hand-in-hand with public safety during emergencies when roads need to be cleared, power must be restored, and other complementary tasks must be undertaken. This history strongly suggests that enterprise entities are best equipped to lease spectrum from public safety licensees in specific instances when the lease terms meet the private entity’s particular operational needs and, more likely, they may find geographic pockets where public safety’s spectrum needs have not included 4.9 GHz and private users are able to secure licenses under the proposed rule change below.

Conversely, the Parties recommend against expanding eligibility in this band to include commercial carriers. In practical terms, it seems improbable that spectrum leasing subject to public safety priority and preemption rights will attract use of the band by commercial providers whose consumer subscribers expect reliable connectivity on demand 24/7/365. Public safety entities cannot predict when they will need exclusive use of their spectrum, where they will need it, or for how long. This raises the serious question of whether any commercial operation would invest in equipment, deployment, and maintenance of a system to which access could be denied with minimal advance notice and for an unknown amount of time.

It also is unclear how the public safety **right** to preempt a commercial system would be translated into an **ability** to do so when the traffic is not being carried on a common network.

CII and other private enterprise entities represented by the Parties have communications requirements that can be just as vital as those of public safety providers, and disruption can have equally negative consequences for the public. Nonetheless, they have coordinated and cooperated with public safety users for decades and understand how to allow a clear path for public safety traffic when necessary. They are able to make that commitment internally without reference to the needs of third-party paying subscribers.⁸

Despite these reservations, the Parties do not oppose the use of the spectrum lease models proposed, provided that all remain subject to band manager approval with a portion of the lease revenue reserved for its operations as that will be its primary funding source.⁹ If public safety licensees and lessees negotiate mutually acceptable agreement, including with respect to priority and preemption rights, and the band manager coordinates and approves those leases, there is no reason to prevent them as long as nationwide consistency with local control is maintained. The type of lease should be determined by the parties and the band manager, consistent with the rules governing spectrum leases generally.¹⁰ The Parties simply wish to caution the FCC about the likelihood that leases will attract significant third-party interest or investment. Because of that concern, they recommend inclusion of the additional exclusive licensing opportunity described below.

It is the FCC's position that this band is underutilized. That will be determined when incumbents enter their operational data in ULS. The Parties expect it will be shown that the 4.9 GHz band is very substantially deployed in certain areas of the country such that the

⁸ The Parties oppose the idea of allowing unlicensed use in this band. The intractability of the interference being caused to Miami-Dade County's 6 GHz microwave network by even licensed systems, albeit ones operating illegally, demonstrates why unlicensed use should never be authorized in a band where public safety operations are primary. See Notice of Unlicensed Operation and Notification of Harmful Interference, Case Number: EB-FIELDSCR-22-00033669 (Sep. 30, 2022).

⁹ FNPRM at ¶¶ 96-97.

¹⁰ 47 C.F.R. § 1.9001 *et seq.*

protection of current operations will make additional use impractical. Even lease rights would be of interest only when the spectrum is not already fully utilized by public safety operations. However, to the extent spectrum remains available in other areas, areas where public safety to date has not found a need for this band, the Parties recommend that public safety and private enterprise entities, but not commercial service providers, should be eligible to acquire primary licenses under whatever band plan and coordination procedures the band manager adopts.

Public safety has had exclusive access to this band for almost 20 years, and incumbent public safety entities have the continued right to expand their operations during the pendency of the FNPRM as they have been exempted from the freeze.¹¹ The Parties assume they will take advantage of the period prior to adoption of new rules to ensure the adequacy of their license rights. Thereafter, in the highly unlikely event that mutually exclusive public safety and private enterprise applications are submitted to the band manager and cannot be resolved through the frequency coordination process, the Parties recommend that public safety applicants would receive priority. Use by entities such as pipelines, mines, and other activities that tend to be located at some distance from major population centers may well be attractive under exclusive, non-preemptible licensing rules consistent with whatever band plan is adopted. And if it should be the case that public safety entities have not identified a need for 4.9 GHz spectrum in more populated areas, CII and other private enterprise entities might invest in deployment when their usage rights are protected.

II. Selection and Responsibilities of Band Manager

The Parties previously noted their support for a 4.9 GHz national band manager. Most of the undersigned were parties to the *ex parte* filing referenced in n. 1, in which they

¹¹ *Public Safety and Homeland Security Bureau and Wireless Telecommunications Bureau Modify Temporary Filing Freeze on the Acceptance and Processing of Certain Part 90 Applications for the 4940-4990 MHz Band*, WP Docket No. 07-100, Public Notice, 36 FCC Rcd 15185 (PSHSB/WTB 2021); *see also* R&O at ¶ 70.

expressed a belief that they are uniquely qualified to fulfill that role and outlined actions they would take in that position. Among other criteria, they clearly have the “trust and understanding of the public safety community”¹² the FCC identified as essential. The FCC now has indicated its intention of appointing a selection committee of 4.9 GHz stakeholders charged with choosing the band manager. Whatever entity the committee selects, the Parties fully endorse that approach as they do the proposals to appoint an odd number of representatives to avoid a deadlock situation, to have the committee proceed by consensus, and that all stakeholders should be represented.

To that end, the Parties suggest that these include public safety, enterprise and CII entities. These selection committee members undoubtedly will seek input from equipment vendors, consultants, and other technical resources as they consider potential band managers, but only those representing users and prospective users of this spectrum should serve on that committee. The Parties recommend that the FCC implement a process for accepting requests for appointment rather than having the Public Safety and Homeland Security Bureau and the Wireless Telecommunications Bureau (“Bureaus”) extend invitations and wait for a response. The Bureaus then can select from among those prepared to invest the time and energy into serving in that capacity based on their expertise in the specific requirements of the 4.9 GHz band. While not addressed in the FNPRM, the Parties assume, and ask the FCC to confirm, that parties represented on the selection committee are disqualified from pursuing the band manager role as that would create an obvious conflict.

As suggested in the FNPRM, the committee will need to notify the FCC about the process it will use to select the band manager, including the criteria on which it will base its decision. This band does not involve the band clearing costs that are part of clearinghouse

¹² R&O at ¶ 22.

responsibilities in certain bands, but the 4.9 GHz band manager will have responsibilities that exceed cost management. It will be charged with developing a 4.9 GHz band plan that may involve accounting for use cases beyond fixed and mobile, uses as diverse as aeronautical, including UAS, and robotics, while ensuring that public safety operations are protected, all balanced against the need to maximize spectrum utilization to the extent possible. The selection factors should include wireless industry experience, technical expertise, management capability, neutrality and independence, and financial stability. Requests for Proposal may be the optimal means of evaluating the qualifications of band manager applicants, but the Parties leave that decision to the selection committee and the Bureaus with which it will be working closely.

Once selected, the Parties recommend the band manager be granted maximum flexibility in developing a band plan, establishing criteria for minimizing harmful interference given the diversity of potential use cases, adopting a frequency coordination process, evaluating lease arrangements, promoting technological incentivization, and fulfilling whatever other functions are needed in its band manager capacity. For example, the FNPRM notes that the FCC has received multiple recommendations regarding interference criteria and asks which should be adopted.¹³ The private user community has a long history of reaching consensus on such matters since they share a common objective: promoting interference-free operations to the maximum extent possible. The Parties are confident that the community will provide the band manager with useful input once more details are developed with respect to the band plan and other technical considerations. The final decision should be left to that entity.

The Parties do expect the band manager to scrutinize the license data submitted in ULS carefully. In particular, since frequency coordination is intended to maximize the utility of the

¹³ FNPRM at ¶¶ 75-83.

band, it is recommended that licenses be reviewed to ensure that they request no more coverage than reasonably required.¹⁴ As the licensing structure of the band moves from almost exclusively geographic-area authorizations to a site-based model,¹⁵ the Parties recommend that only systems centered around a set of geographic coordinates and fixed links be accorded primary status. Entities with wide-area coverage needs that are not associated with a fixed location should be licensed on a secondary basis to limit their potential impact on entities whose coverage requirements are geographically centered.

It is unclear at this time what financial resources will be required to set up a band manager or to allow it to perform as required. It should be permitted to participate in frequency coordination revenue and lease fees under both lease models, but until more is known about the band plan, the possibility of non-public safety exclusive licensing as proposed above, and the industry's appetite for leasing spectrum subject to priority and preemption disruption, the band manager funding sources cannot be determined with any specificity.

The Parties recommend balancing flexibility for the band manager with an appropriate amount of oversight by the Bureaus. They agree the band manager should submit annual reports, reports available to the public, in which it provides information such as that suggested in the FNPRM.¹⁶ It should disclose the speed with which coordination requests are processed, any instances of reported interference, how and how quickly such instances were resolved, an inventory of leases approved, and other matters that bear on the band manager's performance of its duties.

¹⁴ R&O at ¶ 48.

¹⁵ FNPRM at ¶¶ 117-118.

¹⁶ *Id.* at ¶¶ 143-145.

III. Conclusion

It is time to finalize rules for this band so all interested parties can determine what, if any, role it can play in their spectrum future. The Parties urge the FCC to adopt rules providing for private entity eligibility for 4.9 GHz leasing and licensing opportunities as detailed above and to adopt band manager-related rules consistent with the recommendations herein.

Respectfully submitted,

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