

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

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

COMMENTS OF APCO INTERNATIONAL

Respectfully submitted,

APCO INTERNATIONAL

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I. Summary

The Association of Public-Safety Communications Officials (APCO) International, Inc.,¹ appreciates the Commission’s efforts to continue developing a framework for the 4.9 GHz band that will meet public safety’s needs. The Seventh Report and Order² is a step in the right direction. The Order increases technical flexibility for licensees, requires formal frequency coordination, and reaffirms that “the primary purpose of this band is to host public safety communications.”³ This last point is most critical, as success for the band will depend upon an unwavering commitment to preserving public safety use of 4.9 GHz. New investments - both from public safety and other entities - may take several years and won’t be made without confidence in a sufficient return on the investment.

Despite these steps to promote public safety use of the band, several questions remain unanswered. How can the Commission balance incentives to monetize the band and use excess spectrum capacity without creating incentives that infringe upon public safety use? How will a

¹ Founded in 1935, APCO is the nation’s oldest and largest organization of public safety communications professionals. APCO is a non-profit association with over 39,000 members, primarily consisting of state and local government employees who manage and operate public safety communications systems – including 9-1-1 Emergency Communications Centers (ECCs), emergency operations centers, radio networks, and information technology – for law enforcement, fire, emergency medical, and other public safety agencies.

² Amendment of Part 90 of the Commission’s Rules, WP Docket No. 07-100, *Seventh Report and Order and Ninth Further Notice of Proposed Rulemaking*, FCC 23-3 (2023) (“Order & FNPRM”).

³ *Id.* at para. 129.

band manager ensure public safety users are protected from interference from non-public safety users? Is there a viable business model for a band manager, or will it create a weak link in the chain for fostering public safety use of the band?

The extent of the opportunity to leverage excess spectrum is unknown. The market will need time to react to the new technical parameters, interference protection criteria, departure from the geographic licensing approach (which will bring increased clarity of public safety operations), and novel leasing framework with priority and preemption requirements for public safety. Further, even after the transition to this new framework, the amount of excess spectrum will be a moving target with public safety use potentially increasing during spectrum lease negotiations and throughout the life of the lease. The Commission should closely scrutinize entities expressing certainty of the ability of a band manager to generate revenue that exceeds expenses, as this might indicate the entity does not appreciate the uncertainties of this framework or is not committed to protecting public safety use of the band.

APCO continues to believe that sharing 4.9 GHz can benefit public safety users and is hopeful that the band manager approach can be viable. Depending on how the issues here are resolved, 4.9 GHz could demonstrate success for a new model of prioritizing public safety communications while supporting a variety of other uses: critical infrastructure communications; 5G; wireless internet service; enterprise Wi-Fi; etc.

APCO's comments provide detailed input on a variety of issues. At a high level, the best path forward for a band manager approach in 4.9 GHz consists of two pillars:

1. Additional safeguards for public safety.
 - a. Eliminate opportunities for any entity to have a financial incentive to infringe upon public safety use.
 - b. Prioritize public safety use of the band, even if doing so complicates lease negotiations or requires lessees to modify non-public safety use.

- c. Require the band manager and any entity involved with frequency coordination to be representative of public safety users.
 - d. Accelerate the use of frequency coordination.
- 2. Supporting the band manager's role to leverage excess spectrum.
 - a. Permit flexibility to tailor preemption mechanisms to public safety's needs.
 - b. Avoid shifting the Commission's responsibilities for mediating disputes and resolving interference complaints.
 - c. Consider alternative leasing models that would simplify the leasing process while fully protecting public safety.

The Commission must continue moving forward. APCO offers suggestions for the band manager approach that can be naturally incorporated into the Commission's plan for further action to implement this new framework for 4.9 GHz.

Finally, the Commission must make ULS reliable, both from a technical perspective (ULS availability) and the requirement for licensees to enter accurate, granular information. System outages and incomplete file updates pose increasing challenges for frequency coordinators and other stakeholders that depend upon ULS. Improving ULS reliability must be a priority.

II. Recommendations for Developing a Band Manager Approach that Protects 4.9 GHz for Public Safety

A. The Commission Must Adhere to its Commitment that the Primary Purpose of 4.9 GHz is Public Safety Communications.

Adopting a framework for non-public safety use of 4.9 GHz introduces several difficult issues for how to protect public safety use while leveraging excess spectrum. The band manager will have some degree of discretion regarding interpretation of the Commission's rules and interference protection requirements, as well as incentives to drive non-public safety use of the band. Depending on the circumstances, the band manager might face significant pressure to generate sufficient revenue simply to maintain its operations. Thus, the Commission must adopt

strong rules to ensure that whenever public safety use of the band is being weighed against non-public safety use - whether through leasing decisions, interference complaints, or other circumstances - public safety use will be prioritized.

The Commission has rightly determined that the band manager “will not...have the authority to disallow proposed public safety operations or otherwise limit public safety operations once a public safety entity is licensed to operate in the band.”⁴ The Commission should adhere to the following additional principles:

- Avoid creating incentives for licensees or the band manager to sacrifice public safety use of the band for the sake of enabling non-public safety use.
- Avoid unreasonable expectations for non-public safety use.
 - The extent of the opportunity to leverage excess spectrum is currently unknowable. The market will need time to react to the new technical parameters, interference protection criteria, transition away from the geographic licensing approach (which will increase clarity of public safety operations), and novel leasing framework with priority and preemption requirements for public safety. Further, the amount of excess spectrum will be a moving target with public safety use increasing, potentially during spectrum lease negotiations and throughout the life of a lease. The Commission should closely scrutinize entities expressing certainty of the ability of a band manager to generate revenue that exceeds expenses, as this might indicate the entity does not appreciate the uncertainties of this framework or is not committed to protecting public safety use of the band.
- Establish effective mechanisms to monitor the band manager and ensure leasing decisions are in the best interests of public safety.
- Ensure that public safety frequency coordination and the band manager functions are based on public safety’s best interests.
 - Requiring the band manager to be “representative” of eligible licensees in 4.9 GHz will be important for ensuring decisions are based on public safety’s best interests. This representativeness requirement should mean that the band manager shares a community of interest with public safety licensees, as has traditionally been required for public safety frequency coordination.

⁴ *Id.* at para. 24.

B. Rights and Responsibilities of the Band Manager Regarding Non-Public Safety Operations

The Commission seeks input on two models for enabling band manager-coordinated non-public safety leasing. APCO favors a modified version of Model 1.

i. Model 1

Model 1, in which the band manager serves as a lessee/sublessor, has some advantages. With the band manager as the only entity eligible to lease or sublease to non-public safety entities, there's more likely to be a nationwide approach with beneficial consistency and economies of scale. This approach would also be more conducive than Model 2 to protecting public safety users from pressure to monetize the band, which is of particular concern where the licensee is not the public safety entity using the band.

Model 1 also presents disadvantages. A subleasing model whereby a band manager must enter into individual arrangements with non-public safety entities and secure consent (or accommodate veto power) from all affected licensees would be prohibitively inefficient. The amount of work required for the band manager and the associated costs could make it difficult to avoid operating at a loss.

The band manager should not be required to secure spectrum rights, nor should licensees have individual veto power over leasing arrangements. Instead, the band manager should notify impacted licensees of prospective leases, and if licensees have concerns that can't be resolved by the band manager, they should have a mechanism for raising those concerns with the Commission. As described elsewhere,⁵ requiring the band manager to be a non-profit and

⁵ See *infra* section II.C.

representative of public safety users will help to ensure the band manager acts in the best interests of public safety and avoids leasing arrangements that raise concerns for licensees.

ii. Model 2

Model 2, in which the band manager serves as a lease approver, is substantially inferior. While the band manager's role is more feasible if the responsibility for entering into leasing arrangements is on the public safety licensees, that benefit for the band manager is likely outweighed by the inefficiency and duplicative work. Giving public safety licensees more control over non-public safety use might be beneficial, but individual licensees would lack the expertise and resources expected of the band manager that will be important for soliciting interest and identifying lease conditions that will protect public safety users. Provided that the band manager truly acts in public safety's best interests and appropriate interference protection criteria are in place, making public safety licensees responsible for leasing would likely add little additional value to preventing interference from non-public safety users.

Model 2 presents significant disadvantages. It lacks economies of scale and harkens back to concerns about a patchwork approach that were central to the Commission's decision to reverse course on the state-by-state approach taken in the Sixth Report and Order.⁶ The inefficiency of Model 2 - requiring all potentially affected public safety licensees be parties to the lease to the non-public safety entity⁷ - will make the band less attractive for nationwide non-public safety use. Even with a single set of nationwide technical rules, licensees would possess

⁶ See, e.g., Amendment of Part 90 of the Commission's Rules, WP Docket No. 07-100, *Order on Reconsideration and Eighth Further Notice of Proposed Rulemaking*, 36 FCC Rcd 15032 (2021) ("the State Lessor framework—where decisions driving technical operations would be balkanized across the different states and territories—and the introduction of confusion surrounding the band's rules (and timelines for implementation thereof) would undermine certainty and predictability, thereby reducing incentives to invest in the band, hindering the development and deployment of new technologies, and increasing the risks of incompatible operations").

⁷ Order & FNPRM at para. 97.

substantial discretion in whether to permit non-public safety use, which would lead to inconsistency.

This model also complicates the question of what to do with leasing revenue. Because Model 2 seems to entail licensees receiving some or all of the leasing revenue,⁸ it would heighten the risk that licensees (who in some cases are not the users of the band) forfeit all or part of their 4.9 GHz rights or accept interference that exceeds the interference protection criteria adopted, influenced by revenue to the detriment of public safety. As explained elsewhere,⁹ licensees should not be compensated for sharing the band. Further, as the Commission notes, it's unclear whether funding the band manager through leasing revenues is feasible under Model 2.¹⁰ This is a problem as, under the current framework, public safety's successful use of the band is dependent upon the ongoing service of the band manager.

Simply put, Model 2 would undermine the Commission's goal to create a consistent, nationwide framework for the 4.9 GHz band that fosters efficient use of this important mid-band spectrum while retaining public safety priority and local control.¹¹

iii. An Alternative Leasing Model

The Commission seeks comment on alternative models for leasing.¹² APCO favors a modified approach to Model 1. In addition to the feedback provided on Model 1 above, the Commission should consider creating a "lease-by-rule" framework. With a lease-by-rule framework the band manager would develop a common term sheet for various types of non-public safety use, consisting of the related requirements codified in the Commission's rules and

⁸ See *id.* at para. 126 (explaining that "under Model 2, because licensees make agreements directly with non-public safety lessees, there is no...direct funding source for the Band Manager.").

⁹ See *infra* section II.S.

¹⁰ Order & FNPRM at para. 126.

¹¹ *Id.* at para. 101.

¹² *Id.* at para. 103.

otherwise allowing for basic information on the name of the lessee, area of operation, frequency range, power levels, etc. Entities interested in leasing for those types of uses would submit the completed term sheet to the band manager for review. Upon approval, entities would be authorized to operate in the band. This would adhere to the Commission's decision to use leasing for non-public safety access while avoiding the disadvantages of requiring the band manager to develop, negotiate, and execute intricate lease agreements for each lessee.

If the Commission sees merit in a lease-by-rule approach, further consideration should be given to issues such as whether more requirements for non-public safety users should be incorporated into the rules rather than left for the band manager to define in term sheets, the extent of review appropriate for the band manager, how this approach minimizes lease transaction costs and appropriate compensation for the band manager, and how the term sheets should be expected to evolve with changes in technology or new interest from non-public safety users.

C. Rights and Responsibilities of the Band Manager Regarding Public Safety Operations

The Commission seeks comment on the rights and responsibilities of the band manager regarding public safety operations. APCO agrees that the band manager “must be representative of all eligible licensees in the 4.9 GHz band to ensure that, in coordinating the band and enabling non-public safety access, the Band Manager is knowledgeable and its judgment is impartial.”¹³ As the Commission notes, “This representativeness, familiarity, and impartiality will help the Band Manager work with public safety licensees and non-public safety users to maximize efficient use of the 4.9 GHz band.”¹⁴

¹³ *Id.* at para. 73.

¹⁴ *Id.*

APCO agrees with the Commission that the band manager “must have a complete, accurate, and current knowledge of the 4.9 GHz band environment.”¹⁵ This will empower the band manager to make recommendations to public safety users and leasing decisions that serve the best interests of public safety. Importantly, knowledge of the band should not merely consist of technical information about existing use and interference protection needs. Rather, the band manager’s knowledge of the band must include a complete understanding of the operational perspective of public safety users.

Extending the longstanding requirement of “representativeness” of the users of the frequencies to be coordinated¹⁶ - for the band manager as well as any entity performing formal frequency coordination for public safety users in 4.9 GHz - will be valuable for coordinating operations in the 4.9 GHz band. As the Commission has required in other bands, being representative must mean sharing a community of interest with public safety entities using the band. Non-public safety coordinators will not be positioned to understand the unique needs of public safety users, protect both new and incumbent users from harmful interference, and make coordination decisions in the best interests of public safety.

D. Criteria for Harmful Interference

The Commission seeks comment on the approach to interference protection in 4.9 GHz, noting that the record contains a lack of consensus.¹⁷ APCO believes a combination of contour overlap analysis and propagation modeling via TIA-10 will be required.¹⁸ The appropriate criteria and approach will depend on the nature of the use and equipment. The Commission asks

¹⁵ *Id.* at para. 74.

¹⁶ See Frequency Coordination in the Private Land Mobile Radio Services, PR Docket No. 83-737, *Report and Order*, 103 FCC 2d 1093 (1986).

¹⁷ Order & FNPRM at para. 78.

¹⁸ APCO acknowledges its prior support for an alternative to TIA-10 for propagation modeling but no longer has concerns regarding TIA-10 being unnecessarily complex.

whether the band manager should be responsible for establishing interference criteria for public safety operations in the band and raises important questions regarding how to resolve a dispute regarding whether the interference criteria established by the band manager are appropriate or whether a particular operation exceeds the interference criteria.¹⁹

APCO generally supports tasking the band manager with responsibility for establishing interference criteria for public safety operations in the band. The issue of how to resolve disputes regarding operations exceeding the interference criteria, however, requires further consideration because it's unclear whether licensees will possess detailed information regarding non-public safety operations.

E. Mediation

The Commission seeks comment on a variety of issues related to mediating disputes and resolving complaints in 4.9 GHz.²⁰ In general, APCO cautions against making the band manager responsible for these functions, which have traditionally rested with the Commission. The Commission should manage disputes between applicants and incumbents, between licensees, and from licensees or prospective lessees opposed to the band manager's leasing decisions.

F. Potential Integration with Public Safety Broadband Networks

The Commission "tentatively conclude[s] that the Band Manager should explore opportunities to lease spectrum...to operators of broadband networks used by public safety in other frequency bands."²¹ APCO agrees. The band manager should explore a variety of opportunities to leverage excess spectrum and facilitate innovation in the band, including leasing

¹⁹ Order & FNPRM at para. 83.

²⁰ *Id.* at paras. 84-86.

²¹ *Id.* at para. 87.

spectrum to operators of broadband networks, so long as public safety licensees are fully protected.

G. Technological Incentivization

The Commission asks whether the band manager should file its spectrum plan for review by the Commission, and whether it should do so within a certain timeframe.²² The band manager should not be required to file a spectrum plan for *approval* by the Commission, but the plan should be made public. No deadline is needed for development of the spectrum plan because the band manager will have sufficient reason to move expeditiously. Further, the plan should be expected to evolve with changes in public safety use and opportunities to leverage excess spectrum.

The Commission seeks comment on how to encourage the widespread deployment of the latest commercially available technologies in a way that would promote interoperability while also lowering equipment costs, and whether the band manager should designate one or more preferred standards.²³ APCO agrees that designating one or more preferred (but not required) standards could make coordination and facilitating non-public safety use easier.

H. Annual Reports

The Commission tentatively concludes that the band manager's "annual reports should include detailed descriptions of the Band Manager's efforts to: (1) develop a nationwide framework that maximizes use of the band; (2) leverage technological advancements, including 5G; (3) foster a robust equipment market and lower equipment costs; and (4) address non-public safety use of the band to foster innovation and investment."²⁴ APCO supports this conclusion.

²² *Id.* at para. 89.

²³ *Id.* at para. 90.

²⁴ *Id.* at para. 92.

I. Consents

The Commission proposes that all potentially affected public safety licensees would be required to consent to non-public safety use.²⁵ Whether and how licensees would need to consent to non-public safety use is a critical element of making the band manager approach viable. APCO appreciates the interest in empowering public safety licensees to protect their operations. However, so long as the band manager acts in public safety's best interests and applies effective interference protection criteria, requiring consent from individual licensees is an unnecessary burden.

Requiring individual consent will add substantial administrative burdens and potentially interfere with the band manager's duty to employ an impartial approach to lease agreements. For example, a public safety licensee might favor a prospective lessee on the basis of a preexisting relationship or separate business opportunity, and be inclined to withhold consent for arrangements with other lessees even if they present more effective solutions for non-public safety use. The Commission's questions allude to the impracticality of requiring consent: potential hold-outs; non-responsiveness; overlapping licensees reaching different conclusions; and state-level overrides of local licensees' decision making.²⁶

Giving public safety licensees the ability to raise concerns with lease agreements to the Commission has fewer of these drawbacks but will ensure public safety licensees retain the ability to prevent non-public safety use that risks interference. Additionally, broad stakeholder engagement as part of the band manager's development of interference protection criteria will be important for achieving buy-in from licensees and addressing concerns up front.

²⁵ *Id.* at para. 105.

²⁶ *Id.* at paras. 106-108.

The Commission seeks comment on how the band manager will determine which public safety licensees are “potentially affected” by a lease.²⁷ Once licensees have provided detailed information about their operations in ULS, it will be possible to identify the public safety entities that need to be notified. APCO recommends a conservative approach, such as notifying entities with operations that might overlap with lessee operations, plus a 150 kilometer buffer zone.

Relatedly, the Commission must make ULS reliable, both from a technical perspective (ULS availability) and the requirement for licensees to enter accurate, granular information. System outages and incomplete file updates pose increasing challenges for frequency coordinators and other stakeholders that depend upon ULS. Improving ULS reliability must be a priority.²⁸

J. New or Modified Public Safety Use Changing Lease Circumstances

Public safety licensees may seek to modify their operations, and new applications might propose operations that conflict with a lease agreement. How to balance the competing interests of public safety users and lessees in these situations is a difficult issue. On one hand, denying public safety would contradict the Commission’s commitment to preserve public safety use as the primary purpose of 4.9 GHz. On the other hand, affording zero certainty to lessees in the band might quash interest in non-public safety use altogether, which would undermine the Commission’s secondary goal of maximizing efficient use of spectrum.

²⁷ *Id.* at para. 108.

²⁸ Additionally, clarification is needed with regard to the timeframe for licensees to enter granular data about their operations in ULS. *See id.* at para. 34 (requiring incumbent licensees and future applicants to supply complete microwave path data for fixed links, and to obtain a license for base stations (currently authorized under the geographic license scheme) on a site-by-site basis, and noting that a public notice will announce when ULS is prepared to accept the more granular data). *But see id.* para. 35 (stating that incumbent licensees will have at least one year from the publication of this item in the Federal Register to provide the required data in ULS). Once ULS is ready to receive licensees’ granular data, how long will licensees have to submit their information? Entities like APCO that assist licensees with submitting their information in ULS will require time to modify their own systems to accommodate the changes in ULS before they can assist licensees.

To balance these interests, APCO recommends a middle ground in which lessees have a grace period such as twelve months before they'd need to accommodate new or modified public safety use. To be clear, accommodating public safety licensees might entail minor changes such as shifting operations to a different part of the band, or substantial changes such as cessation of operations to protect public safety use. The Commission could also consider a tiered approach in which minor changes for the lessee (such as small adjustments in power levels) require action within one year and major changes for the lessee require action within a slightly longer period of time.

K. Secondary Market Rules

The Commission proposes that all lease arrangements with public safety and non-public safety entities would generally be required to comply with the Commission's secondary markets rules.²⁹ As discussed elsewhere in these comments,³⁰ a new leasing model might be required. The secondary markets rules might not vest the band manager with sufficient authority or provide the necessary flexibility to allow the band manager to efficiently implement a nationwide approach to the 4.9 GHz band. For example, under the rules both spectrum manager leasing and *de facto* transfer leasing would require the band manager to obtain consent from the licensee prior to subleasing the spectrum usage.³¹ Requiring consent for each sublease would be a significant impediment to facilitating non-public safety use of the band.

²⁹ Order & FNPRM at para. 104.

³⁰ See *supra* section II.B.iii.

³¹ See 47 CFR § 1.9020(l) (stating that under spectrum manager leasing the lessee can sublease spectrum usage to another entity only if the licensee has agreed and is in privity with the other entity). See also, 47 CFR § 1.9030(k) (stating that under *de facto* transfer leasing, the lessee can sublease spectrum usage to another entity only with the written consent from the licensee and approval from the Commission).

L. Preemption

The Commission seeks comment on how to ensure preemption rights for public safety licensees over non-public safety users in emergency circumstances.³² APCO cautions the Commission against prescribing a one-size-fits-all approach to ensure public safety users remain free from interference from non-public safety users.

The risk of interference will vary considerably depending on the nature of public safety and non-public safety use. For example, interference to public safety fixed microwave systems from critical infrastructure industry fixed microwave systems can likely be reliably prevented with effective frequency coordination. In contrast, mobile operations are less predictable and will substantially complicate interference prevention, whether the mobile operations are public safety, non-public safety, or both.

The band manager will need to determine the appropriate mechanism(s) for protecting public safety communications based on the nature of public safety and non-public safety use. When the time or location of operations is hard to predict, ensuring reliable public safety communications might require dynamic frequency coordination. In some cases, such coordination might require centralized control of both public safety and non-public safety devices. The band manager will need to judge case-by-case, including with regard to how mechanisms are tested. However, the band manager's discretion should in no way permit curtailing public safety's primary status. Where preemption is necessary, it must be reliable and immediate.

³² Order & FNPRM at paras. 130-134.

APCO has concerns with the Commission's tentative conclusion that the band manager will be responsible for ensuring non-public safety entities comply with preemption requests.³³ Similarly, APCO is concerned with the Commission's question about preemption requests coming directly from public safety licensees rather than flowing through the band manager.³⁴ Preemption - in most cases - must be reliable and immediate, not dependent upon manual communications between individuals (i.e., a fire chief contacting the band manager to request that the band manager notify a lessee to change operations to accommodate public safety use during an emergency response). Some public safety operations in 4.9 GHz might involve sufficient warning to make preemption requests viable, such as unique equipment deployments for an anticipated weather event, but this is likely the exception to the rule.

APCO supports the concept of a "shut down" mechanism, but how such a mechanism works might differ based on the non-public safety equipment involved. This underscores the need for the band manager to have discretion to determine the appropriate mechanism(s) for prioritizing public safety communications based on the nature of public safety and non-public safety use.

M. Streamlining the Band Manager's Oversight of Non-Public Safety Operations

The Commission seeks comment on the extent to which the band manager and other parties may streamline the process by which the band manager oversees non-public safety operations, such as foregoing site-by-site approval of non-public safety operations in some circumstances.³⁵ Consistent with the band manager's need for discretion over appropriate mechanisms for protecting public safety communications, the band manager should have the

³³ *Id.* at para. 131. While the item discusses preemption compliance by non-public safety "licensees," APCO assumes the intent is to address compliance by non-public safety *lessees*.

³⁴ *Id.*

³⁵ *Id.* at para. 120.

authority to streamline oversight of non-public safety operations. The band manager will be able to determine if, for example, a lessee's proposed operations in an area require site-by-site approvals based on the public safety use at issue.

N. Voluntary Changes by Public Safety Licensees

Maximizing use of 4.9 GHz will be easier with some flexibility on the part of public safety licensees. In limited circumstances, the band manager should be permitted to request that public safety licensees modify their operations to accommodate other public safety and non-public safety use. However, neither the band manager nor lessees should be permitted to incentivize public safety licensees to cease operations in 4.9 GHz. Reasonable changes might include shifting operations to a different part of the band or relocating equipment, provided that the public safety licensee's expenses are fully covered and there is no detriment to the licensee's use of the band. Going further than these modest requests would risk creating incentives that put licensees in a position to monetize the band, which is unworkable for public safety.

O. Non-Discriminatory Leasing

The Commission asks whether the band manager should be permitted to use the spectrum itself or lease to affiliated entities.³⁶ The band manager must ensure the primary purpose of the band is public safety use. Use by the band manager or an affiliated entity would risk an unresolvable conflict of interest.

P. Commission Oversight

The Commission seeks comment on a variety of issues related to oversight of the band manager.³⁷ The degree of oversight required will depend on the leasing model adopted. The Commission should generally serve as a backstop to ensuring the band manager approach is

³⁶ *Id.* at para. 112.

³⁷ *Id.* at paras. 143-147.

effective for protecting public safety use of the band. Among other things, this means public safety licensees should be able to raise concerns regarding the band manager's decisions with the Commission.

The Commission asks whether the band manager should provide non-public safety entities a way to track progress of their requests?³⁸ This seems unnecessary, and establishing such a mechanism could be prohibitively onerous for the band manager. The band manager's interest in leveraging excess spectrum and generating investment for the band should be a sufficient incentive to ensure the band manager is acting diligently and keeping non-public safety entities informed.

The Commission proposes to delegate general oversight responsibility to the Wireless Telecommunications Bureau and Public Safety and Homeland Security Bureau, including authority to address negligence, discrimination, abuses, or errors by the band manager.³⁹ The Commission asks how to oversee the band manager's performance⁴⁰ and proposes that the bureaus may conduct an inquiry into band manager performance if there's a pattern of failing to meet performance requirements.⁴¹ APCO agrees that a mechanism should be in place to address band manager performance issues. Establishing specific standards for performance is difficult while so many aspects of the band manager framework remain undetermined.

The Commission should acknowledge that failing to enter into lease agreements does not necessarily indicate the band manager is failing to perform as expected. The band manager's duty is protecting public safety use of the band. Depending on the extent of public safety use and

³⁸ *Id.* at para. 119.

³⁹ *Id.* at para. 143.

⁴⁰ *Id.* at para. 144.

⁴¹ *Id.* at para. 145.

proposals from non-public safety entities, effective performance by the band manager might entail rejecting the lease proposals being offered.

Q. End of Band Manager Service

The Commission asks whether to appoint the band manager for a specific term length or until removal.⁴² The band manager should be appointed for a defined term rather than serve indefinitely. This will permit other candidates to compete for the role and offer better service to public safety and non-public safety entities. If the incumbent band manager remains the best choice, it should be reappointed. The Commission should consider an initial term such as fifteen years, followed by terms of shorter length. The longer initial term will account for the additional work required to support the new framework.

The Commission raises the important but difficult question regarding the implications for any agreements entered into by the band manager in the event the entity serving in that role changes.⁴³ Requiring agreements to have a succession plan would not be sufficient. How are the band manager duties fulfilled while a new band manager is being selected? What happens if a subsequent band manager is never selected? Would the incoming band manager have any discretion to modify agreements entered into by the prior band manager? Would a band manager's removal for certain types of performance failure invalidate its lease agreements? These issues require careful consideration.

R. Geographic Area Licenses

The Commission asks whether geographic area licenses are needed under the new framework.⁴⁴ Further consideration is warranted with regard to retaining some element of

⁴² *Id.* at para. 146.

⁴³ *Id.* at para. 147.

⁴⁴ *Id.* at para. 118.

geographic area licensing to accommodate public safety operations that are not well-suited for site-based licensing (e.g., vehicular local area networks).

The Commission seeks comment on how to enable leased access in areas where there is not a public safety licensee.⁴⁵ The band manager needs to be able to facilitate leases to non-public safety users nationwide, including in areas without an existing licensee. Requiring a public safety entity to secure a license in those areas solely to enable leasing to non-public safety entities would be impractical. Further consideration is needed regarding how a band manager could best facilitate access nationwide. As stated above,⁴⁶ the Commission should consider alternative leasing models, including those that would simplify the approach to permitting non-public safety use where there are no licensed operations.

S. Revenue

The Commission asks a variety of questions related to revenue that have implications for avoiding incentives to infringe upon public safety use and the viability of the band manager model altogether.

- Will leasing revenues provide the band manager with sufficient funds?⁴⁷
 - Unclear. The extent of public safety use, and therefore the extent of excess spectrum, is unknown. This will change as public safety use increases in response to the positive steps taken in the Order. The extent of commercial interest in leveraging excess spectrum and its dollar value are unknown. The band manager's expenses depend significantly on the resolution of issues in the FNPRM.
- Should the Commission provide for advanced funding for the band manager and, if so, how?⁴⁸
 - The need for start-up funding could be substantial, depending on the band manager's costs (which depend significantly on future Commission decisions), but it's unclear how the Commission could provide such funding. The band manager faces significant risks that leasing will not provide adequate revenue at

⁴⁵ *Id.* at para. 121.

⁴⁶ *See supra* section II.B.iii.

⁴⁷ *Id.* at para. 125.

⁴⁸ *Id.*

all, or that lease revenue will be delayed if Commission or band manager decisions are challenged. If the Commission were to streamline the leasing process by codifying the bulk of the lease terms, that would minimize the start-up costs that a band manager might otherwise incur.

- Should the Commission place a cap on the amount of return the band manager can make from leases?⁴⁹
 - Requiring the band manager to be a non-profit and representative of public safety users will help to ensure the band manager acts in the best interests of public safety. However, depending on the leasing model adopted, further consideration is needed regarding whether the prospect of unlimited leasing revenue might unduly influence the band manager (or create the appearance of undue influence). The Commission would need to explore how, if a cap is used, revenue above the cap would be allocated consistent with the Commission's goal to ensure that lease revenue serves the public interest.⁵⁰
- How should the rules treat compensation to licensees, whether from the band manager or non-public safety users?⁵¹
 - Licensees should not be compensated for leasing all or part of their spectrum. Spectrum is not a commodity for public safety agencies; it is an essential tool to carry out their lifesaving missions. Accordingly, public safety's use of spectrum should not be thought of as an asset to be traded for compensation, especially when the license holder or decision maker isn't the public safety agency using the band. The Commission's tentative conclusion that a public safety licensee that ceases operations would no longer be eligible for lease-related compensation points to the problems with this approach. This would create unworkable incentives to artificially inflate use of the band to preserve compensation or receive a payout, and depending on how the Commission resolves issues with licensee consent, compensation would introduce substantial complexity in facilitating non-public safety use.

T. Selection of the Band Manager

The Commission seeks comment on a variety of issues related to the process for selecting a band manager, including the composition of the selection committee to be established pursuant to the Order.⁵² Selecting a band manager that will act in public safety's best interests is critical

⁴⁹ *Id.*

⁵⁰ *Id.* at para. 129.

⁵¹ *Id.* at para. 128.

⁵² *Id.* at paras. 135-140.

for the success of this new approach to promote use of the band while ensuring its primary purpose remains public safety communications. To that end, APCO strongly prefers that the selection committee consist solely of public safety entities with expertise in 4.9 GHz. If the Commission concludes that non-public safety entities should be represented, the public safety members of the committee should comprise a supermajority.

U. Future Licensing

The Commission seeks comment on how to address future licensing of the band.⁵³ The public safety community has been waiting a long time for the action taken by the Order to require formal public safety frequency coordination and increase technical flexibility. The Commission's goal should be to lift the freeze on new applications as soon as possible and mitigate the risk that deployments occurring prior to lifting the freeze align with the new approach to the band.

i. Impose a Preliminary Frequency Coordination Requirement

Under the current freeze, no new licensees may enter the band, but incumbents may file to modify their licenses or to license new points in a fixed system.⁵⁴ While APCO supports permitting public safety licensees to increase use of the band while other issues for the band are being addressed, public safety would be better served if these new and modified operations were coordinated. As soon as licensees populate ULS with detailed information about their operations, the Commission should fully lift the freeze and require all new and modified operations to undergo public safety frequency coordination.

⁵³ *Id.* at para. 148.

⁵⁴ *See id.* *See also* 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).

As noted elsewhere,⁵⁵ the record lacks consensus on the approach to interference protection, and APCO generally supports making the band manager responsible for establishing interference criteria. In advance of selection of the band manager and establishment of final protection criteria, public safety frequency coordinators would be able to perform contour overlap analyses and propagation modeling with conservative assumptions to prevent interference among public safety licensees and applicants. Even imperfect coordination will leave public safety entities and the band manager better off for future licensing. Public safety use of the band will grow with a substantial reduction in the risk of interference, and the lessons learned might assist the band manager with developing the final protection criteria and assuming sole responsibility for frequency coordination.

ii. Treatment of New Licensees

The Commission asks whether new licensees should be treated differently from incumbent licensees with regards to lease consent and revenue rights.⁵⁶ New and incumbent licensees should not be treated differently with regard to consent and revenue rights. APCO reiterates that licensees should have a right to raise concerns over leasing decisions, but their consent should not be required for leases, and licensees should not receive lease revenue. Compensating licensees for limiting their use of the spectrum would create unworkable incentives to artificially inflate use of the band to preserve compensation or receive a payout. It follows that APCO does not find it beneficial to require new deployments to be under the auspices of an existing license rather than issuing a new license.⁵⁷

⁵⁵ See *supra* section II.D.

⁵⁶ Order & FNPRM at para. 149.

⁵⁷ *Id.* at para. 150.

V. Aeronautical Mobile Use

APCO supports permitting aeronautical mobile operations, including for unmanned aircraft systems. The band manager should, to the extent necessary, address unique coordination issues for these operations as part of establishing interference protection criteria.

Respectfully submitted,

APCO INTERNATIONAL

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