

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

In the Matter of)	
)	
NextNav Petition to Reconfigure the)	WT Docket No. 24-240
902-928 MHz Band and Adopt Rules to)	RM-11989
Allow Deployment of a 5G Terrestrial)	
Positioning, Navigation, and Timing)	
Network)	

To: Chiefs, Wireless Telecommunications Bureau and
Office of Engineering and Technology

**COMMENTS
OF THE
ENTERPRISE WIRELESS ALLIANCE**

The Enterprise Wireless Alliance (“EWA”) provides the following Comments in response to the joint Public Notice from the Wireless Telecommunications Bureau (“WTB”) and Office of Engineering Technology (“OET”) in the above-identified proceeding.¹ The Public Notice seeks comment on the Petition for Rulemaking (“Petition”)² filed by NextNav, Inc. (“NextNav”). The Petition proposes a wholesale reconfiguration of the 902-928 MHz Band (“Lower 900 MHz Band” or “Band”) that has for decades supported effective spectrum sharing among a variety of Federal and non-federal entities, as well as licensed and unlicensed uses based on a defined hierarchy of operations and specific interference protection obligations. The Petition proposes to eliminate the current rules governing the Multilateration Location and Monitoring Service (“M-LMS”) in the Band and replace them with rules supporting a terrestrial positioning, navigation, and timing (“TPNT”) service to back up and complement the U.S. Global Positioning System (“GPS”). The TPNT service would consist of a contiguous 5-megahertz uplink (902-907 MHz) and a 10-megahertz downlink (918-928 MHz) created by

¹ See *Wireless Telecommunications Bureau and Office of Engineering and Technology Seek Comment on NextNav Petition for Rulemaking*, WT Docket No. 24-240, Public Notice (rel. Aug 6, 2024) (“Public Notice”).

² NextNav Petition for Rulemaking, *Enabling Next-Generation Terrestrial Positioning, Navigation, and Timing, and 5G: A Plan for the Lower 900 MHz Band (902-928 MHz)* (filed Apr. 16, 2024) (“Rulemaking Petition”). NextNav also filed a supplement proposing specific part 90 rule changes. Letter from Lantz, General Counsel, NextNav Inc., to Marlene H. Dortch, Secretary, FCC (filed June 7, 2024) (“Proposed Rules”) (the Rulemaking Petition and Proposed Rules, collectively, “Petition”).

shifting all non-M-LMS licensees to the 907-918 MHz band. NextNav proposes a spectrum swap by which it would exchange its M-LMS holdings³ for the nationwide 15-megahertz TPNT license that would be designated for flexible use.

EWA has a long history of proposing and supporting initiatives to make more productive use of spectrum and enable deployment of more advanced technologies.⁴ Spectrum is limited and the demands on it increase exponentially as wireless capabilities have become essential to economic and social life in the 21st century. The FCC has consistently endeavored to ensure that its spectrum allocations and its rules promote the best use of spectrum in the public interest even as that use changes.

EWA's established commitment to encouraging innovative spectrum approaches has always been conditioned on an appropriate balancing of the potential benefits of those initiatives and the continued viability of incumbent operations that also serve vital public interests. In most instances, it is possible to craft an approach that accommodates both objectives, often by providing acceptable replacement spectrum for incumbents and requiring that their relocation costs be paid. For the reasons described below, EWA is not confident that spectrum equilibrium can be achieved in this instance and thus cannot support the Petition.

I. The Lower 900 MHz Band Supports Valuable Operations

The CBRS allocation is sometimes lauded as an innovation band and an example of effective spectrum sharing.⁵ EWA submits that the Lower 900 MHz Band is its precursor. As explained in the Public Notice, it is home to Federal radiolocation systems, industrial, scientific, and medical (ISM) equipment, Federal fixed and mobile services, the Location and Monitoring Service (LMS), amateur operations, and part 15 unlicensed devices. The latter is a model of innovation incubation in which devices have been developed for use cases such as E-ZPass toll collection systems, security cameras, traffic control and flood warning systems, RFID tags, and utility monitoring of power, gas, and water distribution systems. These devices are essential to our day-to-day lives and likely can be counted in the hundreds of millions. They work in the

³ As discussed *infra*, NextNav has asked the FCC to approve the assignment to it of 128 M-LMS licenses whose renewal applications have been pending for 5 years and to resurrect and grant consent to the assignment to it of an additional 129 M-LMS authorizations that were terminated in 2016.

⁴ See, e.g., EWA Comments in Dockets WP 07-100, WT 19-38, WT, 23-232, WT 24-80, and WT 24-99.

⁵ *Promoting Investment in the 3550-3700 MHz Band*, Notice of Proposed Rulemaking and Declaratory Ruling, GN Docket No. 17-258, FCC 24-86 at ¶¶ 1-2 (rel. Aug. 16, 2024).

current FCC environment despite their unlicensed status, an outcome that would not be guaranteed and more likely would be lost in the proposed Band reconfiguration.

The Petition rests on a single premise: the GPS that is essential to virtually every aspect of modern life has vulnerabilities and requires a terrestrial and satellite-enabled backup for which the proposed TPNT is the optimal solution. But the premise is a hypothesis, not a fact. As stated in the Petition, the Department of Transportation (“DOT”) has issued a request for quotes (“RFQ”) for “operationally ready complementary PNT services.”⁶ Other Federal agencies are also investigating the subject. The broadcast industry has concluded that ATSC 3.0 can serve as a GPS backup, a solution that would not require a band realignment.⁷ Given the highly disruptive and perhaps catastrophically destructive impact the proposed reconfiguration could have on users in the Band, the FCC should proceed with great caution and ensure the continued viability of all users, including part 15 operations, before taking action in this proceeding.

II. The Public Notice Identifies Key Issues Raised by the Petition

The Public Notice seeks comment on a number of significant issues implicated by the Petition. There are questions about NextNav’s assertion that its technology is the only viable solution for a TPNT system. The FCC asks whether the proposed network would provide superior situational awareness for first responders and indoor E911 accuracy. It requests input on the proposed spectrum swap that involves terminated licenses and an exchange of 14 megahertz of individual licensees for a single 15-megahertz nationwide authorization designated for flexible use without compensation to the Federal government.

These all are legitimate and necessary areas for FCC consideration, but EWA’s focus is on the issues raised in relation to “Identification and Protection of Incumbents.” The Lower 900 MHz Band is an FCC success story, hosting a wide variety of uses, including a multitude of unlicensed part 15 devices that are embedded in the American economy. They have co-existed, indeed thrived in the Band despite their secondary status, because M-LMS licenses were conditioned on demonstrating through actual field tests that their systems would not cause “unacceptable levels of interference” to part 15 devices.⁸ That requirement was essential to development of the innovative part 15 systems on which the public relies each day. It provided

⁶ Petition at 7.

⁷ See, e.g., <https://avateq.com/blog/post-new>; <https://www.gps.gov/cgsic/meetings/2023/diamond.pdf>.

⁸ 47 C.F.R. § 90.353(d).

the assurance of usable spectrum that incentivized the investments needed to create a robust market in these spectrally efficient and highly effective devices.

The Petition proposes to delete Rule Section 90.353(d) in its entirety along with the rest of the M-LMS regulations, and its proposed TPNT rules make clear that no interference protection will be afforded to part 15 devices:

90.1410(c): Operations authorized under parts 15 and 97 of this chapter may not cause harmful interference and **must accept harmful interference from TPNT systems** in the 902-907/918-928 MHz band segments.⁹

The Public Notice describes the Petition as “unclear regarding the extent to which the proposed reconfiguration would impact potentially millions of such devices.”¹⁰ It notes NextNav’s statement that it is conducting technical analyses vis-à-vis part 15 devices and will work with users to understand their spectrum requirements, but asks what impact the proposed reconfiguration would have on them, what services do they provide, could they be moved to other bands, and what would be the cost and the timing of relocation if that were possible.¹¹

The early comments in this proceeding reflect great concern about interference to part 15 devices from the Band reconfiguration proposed.¹² And the potential for interference is not only from the proposed TPNT system. Because that system does not require all the capacity in this 15-megahertz allocation, NextNav intends to fund its deployment by allowing carriers to “integrate NextNav’s Lower 900 MHz Band spectrum into their 5G networks....”¹³ The proposed technical rules would permit significantly higher power operations than allowed today in geographically extensive commercial 5G networks and thereby dramatically alter the current spectrum landscape. As the FCC evaluates the Petition, EWA urges it to consider the potential impact of both TPNT and commercial broadband operations on the unlicensed devices that have co-existed successfully in the Band for decades.

With regard to whether these devices could be moved to another band, at what cost and within what timeframe, EWA questions how such a relocation could be accomplished at any cost

⁹ Proposed Rules at A-11.

¹⁰ Public Notice at p. 4.

¹¹ *Id.* The Public Notice has questions about interference protection for amateurs as well as unlicensed users. That user community has made its concerns known in several hundred comments in the proceeding, many of which were filed within days of the Public Notice.

¹² *See, e.g.*, Letters from Atlas RFID Solutions Store, LLC, Tageos Inc., Somewear Labs, Inc., Tasedon’s Lab 484, ALL-TAG Corporation, and RFID Sherpas. Interference concerns also have been raised regarding ISM systems, despite NextNav’s statement that it will protect them. *See, e.g.*, Letter from Timothy J. Shearer, PE.

¹³ Rulemaking Petition at 22.

or in any timeframe even if replacement spectrum were identified. These hundreds of millions of devices are in businesses, governmental agencies, and – notably – homes. A Public Notice advising users to relocate, for the most part, would not be read nor overwhelmingly understood by the recipients of the notice. Most users, especially individuals, have no idea of the regulatory status of their unlicensed devices nor are they particularly interested.

People know what cars they own if a recall is announced. These devices are simply a commodity purchased, often online, to meet a need without a focus on even the brand, much less the technology or the spectrum on which they operate. Would the FCC have all vendors and manufacturers attempt to contact all previous purchasers to alert them of the need to move? Would they or should they continue selling these devices if interference protection is abandoned? Would NextNav and/or its anticipated commercial partners be responsible for paying the associated costs through some type of clearinghouse overseen by the FCC? Would it matter how long ago the devices were purchased? In practical terms, once unlicensed wireless devices are in the marketplace, EWA questions whether there is any realistic mechanism for relocating them.

III. NextNav’s Application for Assignment of Terminated and Other Unconstructed M-LMS Licenses Should Not be Processed Until the FCC has Acted on the Petition

This Petition rests on two assumptions. First, that the TPNT system proposed by NextNav is the optimal GPS backup solution, superior to alternatives, and will be deployed as envisioned with appropriate interference protection for other services. Second, that the long-dormant Telesaurus Holdings GB LLC and Skybridge Spectrum Foundation M-LMS (“Telesaurus/Skybridge”) licenses should be assigned to NextNav, thereby giving it a colorable claim to a cost-free swap of 14 MHz of geographic M-LMS spectrum for the proposed 15 MHz nationwide TPNT authorization. These 257 M-LMS licenses to which NextNav wishes to lay claim have been inactive for a very extended period. All were controlled by a single individual and all received multiple extensions of their buildout requirements before being terminated for failure to construct, albeit subject to a pending Petition for Reconsideration, or remain classified as active with renewal applications pending for several years because of ongoing legal issues.

That assignment application (FCC File No. 0011022019) has triggered requests that it be held in abeyance until action has been taken in the rulemaking proceeding. Itron, Inc., which provides automatic meter reading (“AMR”) part 15 devices, notes that absent final action on a rulemaking consistent with the Petition, NextNav would have no need for the extraordinary relief of resurrecting these licenses for assignment to it. PSC Partners, L.P. (“PSCP”) argues that its

pending 2016 request for reinstatement of 32 terminated M-LMS licenses should entitle it to relief consistent with the FCC's treatment of the Telesaurus/Skybridge licenses. EWA takes no position on the merits of the PSCP reinstatement request, but agrees with both parties that there is no need to act on the assignment application until the larger issues raised in the Petition are addressed. Premature action on that application might cause other parties with similar or even not so very similar requests pending before the FCC to seek comparable relief. The spectrum NextNav seeks will remain available pending FCC action on this matter.

EWA urges delay in this instance despite its commitment to the proposition that spectrum should be placed into productive use and not stockpiled, either by licensees or by the FCC when it is returned by or recovered from licensees. The ability to award licenses pursuant to a competitive bidding process, by auction, has enabled the FCC to resolve mutually exclusive claims to geographic authorizations efficiently in many bands and with minimal challenges. EWA continues to support efforts to convince Congress to reinstate the FCC's auction authority as a useful tool for meeting the FCC's statutory obligations. However, when the FCC had auction authority, its focus was on using it to award substantial spectrum blocks over large geographic areas, typically to entities that would use it to deploy consumer-oriented commercial networks. EWA appreciates the importance of those services, but is concerned that the FCC has not held auctions for recovered spectrum in smaller allocations in recent years. For that reason, it recommended earlier this year that there was a better approach for placing this type of recovered spectrum into use in a timely fashion.¹⁴ It explained the Part 90 Frequency Advisory Committees had developed processes for resolving instances of mutual exclusivity that enable them to coordinate applications outside of the auction process and without a need for FCC involvement. Depending on the outcome of this proceeding, EWA recommends that the FCC consider the M-LMS spectrum as a candidate for assignment via the coordination process.

It is unfortunate that Telesaurus/Skybridge never placed their spectrum into productive use, were able to justify extraordinarily extended periods of inactivity, and their court-ordered Receiver still has a rightful claim to the licenses because of timely filed, but never processed renewal applications and reconsideration requests for terminated licenses. Given this history, there should be no urgency in processing the assignment application. Whether granting that

¹⁴ Enterprise Wireless Alliance Comments, WT Docket No. 24-72, filed Apr. 8, 2024.


application is in the public interest can only be determined after the FCC has made a decision about the merits of the Petition with which the licenses in question are inextricably intertwined.

IV. Conclusion

EWA does not question the importance of GPS in all aspects of daily life or the value of having a reliable backup to it. Whether the proposed TPNT system is the optimal solution has not yet been determined. Yet even if it is, the rule changes proposed by NextNav could have a profoundly negative impact on the hundreds of millions of part 15 devices embedded in virtually every element of that same daily life. EWA urges the FCC to proceed with utmost caution before abandoning the current, highly successful Lower 900 MHz Band regulatory structure in an effort to address the GPS backup issue.

Respectfully submitted,

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