

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

In the Matter of)
Creation of Interstitial 12.5 kHz Channels in the) WP Docket No. 15-32
800 MHz Band between 809-817/854-862 MHz) RM-11572

To: The Commission

**COMMENTS
OF THE
LAND MOBILE COMMUNICATIONS COUNCIL**

The Land Mobile Communications Council (“LMCC”), in accordance with Section 1.45 of the Federal Communications Commission (“FCC” or “Commission”) rules, respectfully submits its comments in response to the Notice of Proposed Rulemaking regarding the creation of new, full power, interstitial 12.5 kHz channels in the 809-817/854-862 MHz band (“800 MHz Mid-Band”).¹ The NPRM represents an important opportunity for the private land mobile radio (“PLMR”) user community to derive more intensive use of its limited spectrum options. Through careful coordination of interstitial system deployment, the LMCC is confident that additional, spectrally efficient systems can be implemented without adversely impacting incumbent systems operating on adjacent 25 kHz bandwidth channels.

I INTRODUCTION

The LMCC is a non-profit association of organizations representing virtually all users of land mobile radio systems, providers of land mobile services, and manufacturers of land mobile radio equipment. The LMCC acts with the consensus and on behalf of the vast majority of public safety,

¹ In the Matter of Creation of Interstitial 12.5 kHz Channels in the 800 MHz Band Between 809-817/854-862 MHz, WP Docket No. 15-32, *Notice of Proposed Rulemaking*, 30 FCC Rcd 1663 (2015) (“NPRM”).

business, industrial, transportation and private commercial radio users, as well as a diverse group of land mobile service providers and equipment manufacturers. Membership includes the following organizations:

- American Association of State Highway and Transportation Officials (“AASHTO”)
- American Automobile Association (“AAA”)
- American Petroleum Institute (“API”)
- Association of American Railroads (“AAR”)
- Association of Public-Safety Communications Officials-International, Inc. (“APCO”)
- Aviation Spectrum Resources, Inc. (“ASRI”)
- Central Station Alarm Association (“CSAA”)
- Energy Telecommunications and Electrical Association (“ENTELEC”)
- Enterprise Wireless Alliance (“EWA”)
- Forest Industries Telecommunications (“FIT”)
- Forestry-Conservation Communications Association (“FCCA”)
- Intelligent Transportation Society of America, Inc. (“ITSA”)
- International Association of Fire Chiefs (“IAFC”)
- International Municipal Signal Association (“IMSA”)
- MRFAC, Inc. (“MRFAC”)
- National Association of State Foresters (“NASF”)
- PCIA – The Wireless Infrastructure Association (“PCIA”)
- Telecommunications Industry Association (“TIA”)
- Utilities Telecom Council (“UTC”)²

These organizations, individually and collectively, work with their members and with the FCC in an effort to maximize the use of scarce spectrum resources. Allowing the deployment of systems on interstitial 12.5 kHz channels in the 800 MHz Mid-Band will further that objective.

II THE NEED TO PROVIDE FOR 800 MHz INTERSTITIAL CHANNELS HAS ONLY INCREASED SINCE THE ORIGINAL PROPOSAL WAS FILED IN 2009.

The period since the filing of the Petition for Rulemaking that initiated this proceeding³ has been a time of significant advances in the equipment options for PLMR users. An industry that had

² UTC does not support this Commission proposal.

³ See Petition for Rulemaking of the Enterprise Wireless Alliance, RM-11572, filed April 29, 2009 (“Petition”). The FCC then issued a Public Notice seeking comment on the Petition. See Public Safety and Homeland Security Bureau and Wireless Telecommunications Bureau Seek Comment on the Petition by Enterprise Wireless Alliance Requesting the Creation of New, Full Power, Interstitial 12.5 kHz Channels in the 800 MHz Band, RM-11572, *Public Notice*, 24 FCC Rcd 12461 (2009) (“Public Notice”).

utilized analog systems almost exclusively for decades now has available to it a wide variety of feature-rich analog and digital technologies. The benefits of these technologies in meeting the needs of public safety, critical infrastructure, business enterprise, and commercial licensees are obvious. The challenge is identifying PLMR spectrum on which those benefits can be realized most fully.

Some advanced technologies can be deployed on shared channels, but others require and all function most effectively on exclusive channel assignments. Although FCC Rule Section 90.187 now provides opportunities for protected frequency assignments on frequencies below 512 MHz under certain conditions, those conditions are difficult to meet in the more populated regions where spectrum had been assigned primarily on a shared basis for decades.⁴ Thus, in the very areas where enhanced capabilities and spectrum efficiencies are needed most urgently, the spectrum on which to deploy advanced technologies is most limited.

For this reason, the LMCC supports the proposal to create exclusive, full-power, interstitial 800 MHz Mid-Band frequencies. The 800 MHz band, by comparison with the complex licensing landscape below 512 MHz, is relatively orderly. Virtually all primary 25 kHz channels are licensed on an exclusive basis and co-channel assignments are consistent as they are governed by FCC Rule Section 90.621(b) irrespective of user eligibility. The 800 MHz rebanding process has been challenging and has taken longer than anticipated, but it has not caused any significant restructuring of co-channel assignments. Integrating interstitial channels into this environment will require

⁴ T-Band frequencies in the 470-512 MHz band often satisfy the Section 90.187 conditions. However, that spectrum is only available in 11 markets and currently is subject to a stringent freeze in response to Pub. L. No. 112-96, 126 Stat. 156 (2012). See “Wireless Telecommunications Bureau and Public Safety and Homeland Security Bureau Suspend the Acceptance and Processing of Certain Part 22 and 90 Applications for 470-512 MHz (T-Band) Spectrum,” *Public Notice*, 27 FCC Rcd 4218 (WTB/PSHSB 2012) (“Freeze PN”); see also “Wireless Telecommunications Bureau and Public Safety and Homeland Security Bureau Clarify Suspension of the Acceptance and Processing of Certain Part 22 and 90 Applications for 470-512 MHz (T-Band) Spectrum,” *Public Notice*, 27 FCC Rcd 6087 (WTB/PSHSB 2012).

rigorous adherence to detailed coordination procedures to ensure continued protection of adjacent 25 kHz channel systems, but the LMCC has already made significant progress in developing those procedures and expects to share them with the FCC at the Reply Comment stage of this proceeding as discussed more fully below.

III COMMENTS ON THE PROPOSED RULES

In response to specific issues raised in the NPRM, the LMCC offers the following comments, recognizing that individual LMCC members may take positions on other matters identified in the proposal:

The regulatory structure for interstitial channels should mirror the equipment marketplace and provide opportunities for a wide range of equipment types. Protection of incumbent 25 kHz Mid-Band systems should be managed through the equipment certification and frequency coordination process and not by rules that attempt to prescribe on what channels various technologies can be deployed. TETRA and other wider-band technologies can co-exist compatibly with interstitial channel assignments and, indeed, may be deployed on aggregated bandwidth⁵ that includes interstitial channels, provided they are identified correctly by the licensed emission designator and thereby recognizable in the coordination process.

For the same reason, the LMCC does not recommend that access to the interstitial channels be limited to applicants proposing to deploy equipment that is capable of providing multiple transmission paths on each channel. Given the rapid adoption of digital technology, it is highly likely that most interstitial systems will use this more efficient and generally more feature-rich equipment.

⁵ Rule Section 90.645 permits the aggregation of up to five contiguous 800 MHz channels. The Commission will need to revise this rule to reflect the possibility of aggregating both 25 kHz and adjacent 12.5 kHz channels and may wish to revisit the current 125 kHz bandwidth limit on aggregation. It is not obvious why any upper limit is needed, although given the intensive licensing of this spectrum it is unlikely that extensive aggregation is practically achievable. This assumes, of course, that the aggregated spectrum satisfies all co-channel and adjacent channel protection criteria.

However, there may be some entities whose needs are best satisfied with legacy technology. They should not be foreclosed from access to these frequencies. User requirements expressed through their marketplace choices are best able to determine how these channels will be used.

The LMCC filed *ex parte* comments in response to the original Petition in which it proposed a matrix that defined interference protection criteria for interstitial channels.⁶ It is a reflection of the impressive expansion in PLMR equipment choices over the past five years that the matrix developed in 2010 now is inadequate. While the fundamental contour analysis approach remains sound, the matrix itself is being expanded significantly to address the myriad technologies from which PLMR users now may choose to meet their communications requirements. As noted above, the LMCC is finalizing the updated matrix and will file it as soon as possible, in any event no later than at the Reply Comment stage of this proceeding.

In light of the dynamic state of the wireless equipment marketplace, the LMCC urges the FCC not to incorporate the matrix in its rules. Instead, as it has done in other instances,⁷ the FCC should satisfy itself that the protection criteria are sound and direct the LMCC frequency advisory committees (“FACs”) that elect to coordinate interstitial channels in the 800 MHz Mid-Band to adhere to those standards. The matrix is complex and represents the best technical assessment at this time but, as technologies continue to evolve, it is possible that adjustments and additions to it will be required. The LMCC will continue to work with the FCC to incorporate any needed changes and the PLMR user community will have access to the then current version of the matrix it as well since it will be posted on the LMCC website: <http://lmcc.org>.

⁶ See Letter from Mark. E. Crosby, LMCC, Secretary/Treasurer to Ruth Milkman, Wireless Telecommunications Bureau and Jamie A. Barnett, Jr., Public Safety and Homeland Security Bureau (June 23, 2010).

⁷ See, e.g., 47 C.F.R. § 90.187(d)(1)(ii)(B).

IV CONCLUSION

The LMCC is pleased that the FCC has taken this important step toward maximizing the PLMR community's access to exclusive use channels. It believes the rule changes proposed as discussed above will benefit the public by allowing further deployment of a wide variety of system types and technologies for the benefit of the this important user constituency.

Respectfully submitted,

/s/

Gregory Kunkle, President
Land Mobile Communications Council
2121 Cooperative Way, Suite 225
Herndon, VA 20171
Phone: (202) 434-4178

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