In the Matter of )
Amendment of Part 90 of the Commission’s Rules ) WP Docket No. 16-261
to Improve Access to Private Land Mobile Radio )
Spectrum )

Land Mobile Communications Council ) RM-11719
Petition for Rulemaking Regarding Interim )
Eligibility for 800 MHz Expansion Band and )
Guard Band Frequencies )

Petition for Rulemaking Regarding Conditional ) RM-11722
Licensing Authority Above 470 MHz )

To: The Commission

REPLY COMMENTS
OF THE
LAND MOBILE COMMUNICATIONS COUNCIL

Respectfully submitted,

/s/
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December 22, 2016
The Land Mobile Communications Council ("LMCC"), in accordance with Section 1.415 of the Federal Communications Commission ("FCC" or "Commission") rules, respectfully submits its Reply Comments in response to the above-identified Notice of Proposed Rulemaking.¹ The record in this proceeding confirms broad support by members and representatives of the Private Land Mobile Radio ("PLMR") user community with respect to the Commission’s proposals to enhance access to PLMR spectrum. Most of the issues raised can be disposed of easily as they are generally endorsed. The only area of significant controversy involves the rules governing priority access to the 800 MHz Expansion Band ("EB") and Guard Band ("GB") spectrum. The LMCC urges the FCC to revisit its tentative NPRM proposal,² which is far more restrictive than the approach recommended in the original LMCC Petition for Rulemaking.³ Adoption of the approach proposed by the Commission carries a very substantial risk that this spectrum will become embroiled in extensive disputes regarding mutual exclusivity rights and/or will become licensed in very significant part to entities that may not have a sincere interest in deploying systems, or the capability of doing so, but view this spectrum purely as an investment opportunity, hoping for a quick sale or lease to a third party.

I PROPOSALS FOR IMPROVED PLMR ACCESS

The PLMR user community is representative of the broadest possible range of state and local governmental and business enterprises that form the backbone of our nation. Without the organizations that rely on PLMR spectrum, America would not function. Although most

² The American Association of State Highway and Transportation Officials and the Wireless Infrastructure Association oppose the LMCC’s position on this issue. The Association of Public-Safety Communications Officials-International, Inc.; International Municipal Signal Association; National Association of State Foresters; and Telecommunications Industry Association abstained from voting on this issue.
³ Petition for Rulemaking of the Land Mobile Communications Council, RM-11719 (filed Mar 27, 2014) ("LMCC EB/GB Petition").
press and public attention is focused on the wireless activities of mega-corporations that offer video, data, and voice consumer-oriented applications, PLMR licensees use spectrum to provide police, fire and other emergency services to the public, to grow our food efficiently, to power our homes and offices reliably, to transport us safely from place to place, and to bring efficiencies and enhanced security to virtually every governmental and business activity conducted in this country.

The relatively limited amount of spectrum that has been allocated for PLMR use dictates that licensees invest in advanced technologies whenever possible, particularly in spectrum-constrained major markets. Trunking, digital equipment, and other improvements allow licensees to multiply the number of communications paths available in each kilohertz of spectrum. However, many of these enhancements operate optimally on, or in some cases require, exclusive use channels. Such channels are exceedingly difficult to secure in urban areas, particularly on bands below 470 MHz where PLMR spectrum was assigned on a shared basis for decades. The proposals in this NPRM would provide additional exclusive channel options in addition to greater licensing flexibility. With the exception of the EB/GB position, the LMCC generally endorses the FCC’s proposals and, with the modifications recommended herein, urges it to adopt rules that will enhance PLMR spectrum access as promptly as possible.

A. **Section 90.35 – Industrial/Business Pool**

1. 90.35(b)(3)

The commenting parties generally agreed with the LMCC and recommended that all of the UHF spectrum under consideration in the NPRM be made available for PLMR use, subject to frequency coordination criteria that ensure appropriate protection to adjacent licensees and services. UHF spectrum that can be assigned on an exclusive basis is simply too scarce to be
sequestered, unused by any entity, if effective coordination procedures would permit its deployment. The LMCC and its Frequency Advisory Committee (“FAC”) members have the expertise and the tools to convert this vacant spectrum into productive wireless capability while protecting the operations of adjacent services. The LMCC would be pleased to work with the FCC in developing protocols appropriate for that task.

2. 90.35(c)(63)4

In the NPRM, the FCC proposed to remove the use limitation from the 12 channels allocated for licensees operating central station alarm monitoring systems in 88 urbanized areas (six 12.5 kHz and six upper adjacent 6.25 kHz). The Commission noted that those channels, as well as the eight nationwide channels (four 12.5 kHz and four upper adjacent 6.25 kHz) available for these users appear under-utilized and queried whether additional changes should be considered.

The Central Station Alarm Association (“CSAA”) represents the communications needs of that industry. As a member of the LMCC, it has discussed with the LMCC the future spectrum requirements of companies that provide alarm services. Based on those discussions, the LMCC endorses the CSAA proposal attached as Exhibit A, which, in the LMCC’s opinion, represents an appropriate balance between the needs of central station alarm monitoring providers and those of other PLMR constituencies. The LMCC recommends that the FCC adopt rule changes consistent with that proposal.

4 The following members representing Public Safety users abstained from voting on this item as it involves only Industrial/Business Pool channels: American Association of State Highway and Transportation Officials; Association of Public-Safety Communications Officials-International, Inc.; Forestry-Conservation Communications Association; International Association of Fire Chiefs; and National Association of State Foresters.
B. Section 90.159 – Temporary and Conditional Permits\textsuperscript{5}

The LMCC in 2014 urged the FCC to amend Section 90.159 of the Commission’s rules and extend conditional licensing authority to site-based applicants in the 470-512 MHz ("T-Band") and 800/900 MHz bands.\textsuperscript{6} Although the NPRM tentatively agreed that expanding conditional licensing authority to the 800/900 MHz bands would be in the public interest, it declined to extend that option to T-Band applicants, citing the 2012 Spectrum Act\textsuperscript{7} and the Commission’s subsequent freeze on T-Band licensing.\textsuperscript{8}

The LMCC disagrees with the FCC’s position with respect to T-Band conditional licensing. Although very few T-Band applications can be filed because of the freeze, there is no obvious reason for disallowing conditional licensing for those that still are permitted. Such applications satisfy all the criteria for conditional licensing and are effectively identical to applications in bands where it already is or is proposed to be permitted. The LMCC cannot think of, the NPRM did not identify, and no party has suggested any public interest that might be adversely affected by including T-Band in the allocations where conditional licensing is permitted. The record in this proceeding also supports extending this option to 700 MHz Public Safety narrowband applicants and to all other Public Safety spectrum that otherwise meets the criteria for conditional licensing, including 800 MHz NPSPAC spectrum.

\textsuperscript{5} AAR, TIA, and UTC abstained from voting on this issue.
\textsuperscript{6} Petition for Rulemaking of the Land Mobile Communications Council, RM-11722 (filed May 15, 2014) ("LMCC Conditional Licensing Petition").
\textsuperscript{7} See Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. No. 112-96, 126 Stat. 156.
Many decades of conditional licensing in the lower bands provide solid evidence that this option can be made available with no concomitant disadvantages. However, as noted in its Comments, the LMCC urges the FCC to enforce strictly the provision limiting conditional licensing authority to 180 days, after which continued operation is a violation of the FCC rules. Applicants who rely on conditional licensing must accept its limitations as well as its advantages. Conditional licensing should not be used as a tool to secure operating authority for a license that cannot be granted on a permanent basis within a reasonable period. At the end of the permitted 180 days, continued operation should be treated as a violation of the Commission’s rules and enforced appropriately, unless the applicant is successful in securing waiver relief for continued operation.9

C. Section 90.219 – Use of Signal Boosters/Section 90.261 – UHF Fixed Operations

The LMCC continues to support amendment of the rules to codify the waiver relief previously granted to AAR, allowing the use of single-channel, Class A signal boosters with up to 30 watts ERP on frequencies from 452/457.90625 to 452/457.9625 MHz in areas where it otherwise is not possible to have reliable coverage from the front to the rear of trains.10

D. Subpart S – 800 MHz Expansion Band (EB) and Guard Band (GB) Licensing

The LMCC EB/GB Petition urged the Commission to allow priority access to these bands by 800 MHz incumbents that wished to expand their operations in a market11 before accepting applications from new entrants, that is, entities with systems in other markets and those with no FCC licenses at all. The LMCC recommended this approach because of the scarcity of.

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9 The FCC licensing staff should be alert to potential abuses should applicants seek Special Temporary Authority to remain on the air after the 180-day conditional licensing period has expired without issuance of a permanent authorization.
11 The LMCC recommends that the FCC define a “market” for this purpose as it did when determining which 900 MHz applicants were subject to the 900 MHz licensing freeze.
exclusive narrowband spectrum available for use by the PLMR community. Allowing a time-limited opportunity for 800 MHz incumbents with expansion requirements to add EB/GB channels would best ensure that this valuable spectrum will be placed into prompt and productive use.

The Commission sought comment on the LMCC EB/GB Petition.\textsuperscript{12} As noted in the NPRM, industry trade associations that collectively have represented the interest of PLMR entities for decades, supported the proposal. Some prospective applicants for new SMR systems opposed the LMCC recommendation.\textsuperscript{13}

The NPRM agreed with the LMCC EB/GB Petition only on a very limited scale. It proposed to allow incumbent Business/Industrial/Land Transportation ("B/ILT") and Public Safety ("PS") licensees a window during which they could apply for available B/ILT channels in the EB. The remaining spectrum, the EB Specialized Mobile Radio ("SMR") channels, as well as the General Pool channels in the GB that are available for B/ILT, SMR and PS entities would be available to all applicants on a first-in-time basis.

The Comments filed in response to the NPRM reflected the same disagreement as was evidenced in responding to the Petition. FACs, industry associations with in-depth experience in the needs of all PLMR eligible entities, prospective new entrants as well as market incumbents, found the NPRM proposal inadequate. As documented in the LMCC’s Comments,}


\textsuperscript{13} Not all prospective SMR applicants oppose priority access. For example, the Enterprise Wireless Alliance ("EWA") represents a number of SMR licensees that might be able to acquire EB/GB channels in their current market areas if incumbents were awarded a priority, although there is no guarantee since their requests would be handled in queue along with applications from PS, B/ILT, and other SMR entities. However, they would not have priority rights for EB/GB spectrum in other market areas where they would like to introduce new services and could be foreclosed from entering those markets at all. Nonetheless, the EWA Board, which includes SMR members, endorsed the LMCC EB/GB Petition because it represents sound spectrum management policy.
there are few and in some instances no available EB B/ILT channels in a number of major urban areas. Priority access to expansion capacity in such markets is illusory, even as to B/ILT incumbents, unless both EB SMR and all GB channels are available.\textsuperscript{14}

The FCC’s objection to a meaningful time-limited priority access seems to rest on the following assertion: “[i]t is not at all clear that preferring incumbent 800 MHz SMR licensees over potential competitors would further the public interest.”\textsuperscript{15} As an initial matter, it is not clear why the Commission considers this issue to be a matter of incumbent versus new SMR applicants. Even if the FCC does not lift the inter-category sharing freeze vis-à-vis the EB SMR spectrum, incumbent PS and B/ILT applicants, along with incumbent SMRs, will be vying with new SMR and all other applicants for General Pool GB channels. This is particularly the case given the paucity of EB B/ILT channels for incumbent expansion purposes.

Before rejecting the broader preferences requested by the industry, the LMCC urges the FCC to consider carefully certain troubling aspects of the licensing results in areas where EB and GB channels have been made available already. Large numbers of new SMR applicants were licensed for all available channels in many of those areas. They were successful in acquiring these channels because incumbents, SMR or otherwise, had no need for additional capacity in those communities. It appears, based on the commonality of contact information and site selection, that virtually all of those applicants were affiliated with one of a very small number of companies that presumably encouraged the filing of those applications. The applicants, for the most part, are individuals, trusts, and other such entities that are unlikely to have any knowledge of PLMR technology, operations or business needs, but apparently have been

\textsuperscript{14} As noted in its Comments, the LMCC recommends lifting the 800 MHz inter-category freeze during this priority access period so all 800 MHz incumbents could apply for any available EB channel.

\textsuperscript{15} NPRM at ¶ 34.
advised that this EB/GB spectrum is an investment opportunity. Based on inquiries from a number of these licensees to organizations such as Sprint Corporation, EWA, and perhaps others in the PLMR industry, many have no awareness of the requirement to construct systems in a timely manner, have no intention of operating the systems for which they are licensed, but want to sell their licenses or lease their spectrum as quickly as possible.

A number of those licenses already have been canceled for failure to certify construction. While the licensees may have been surprised to discover that their spectrum was not attracting prospective purchasers, it is not surprising to anyone with meaningful PLMR expertise that the markets in which they acquired spectrum would not justify investment in an 800 MHz system. In other markets, there are patterns that warrant careful FCC review in the LMCC’s opinion.

As one example, there were seven SMR licenses granted for the same transmitter site in Cheyenne, Wyoming: WQXL321, WQXL350, WQXL351, WQXL515, WQXL517, WQXK919, and WQXR471. The licensees have mailing addresses in Armonk, NY; Palm Springs, CA; Delray Beach, FL; Orlando, FL; Wilmington, DE; and Clifton, NJ. It is reasonable to assume that they did not independently identify an SMR business opportunity in Cheyenne, Wyoming, but were encouraged to request their licenses by the entity that appears as the contact on all seven licenses, Spectrum Networks Group, LLC (“SNG”). The construction of all seven systems was certified on September 9, 2016, and each of the seven licensees immediately thereafter entered into a long-term de facto control transfer spectrum lease with M2M Spectrum Networks, LLC, a company affiliated with SNG.

If SNG was able to orchestrate the filing of applications that resulted in seven SMR licenses at a single site in Cheyenne, plus a substantial number of SMR licenses at other sites in
Cheyenne and Casper, Wyoming, it and similar organizations will have little difficulty enlisting an untold number of applicants for SMR systems in New York, Chicago, San Francisco, Houston, Dallas, Miami, Orlando, Baltimore/Washington, and many other markets with substantially greater population density than those available in the first EB/GB regions. This presents a second troubling issue.

The FCC has directed that no mutually exclusive applications for EB/GB channels may be submitted to the FCC. All such situations are to be resolved by the FACs before applications are filed. FACs interested in coordinating EB/GB channels entered into a Memorandum of Agreement ("MOA") defining the process by which they would exchange EB/GB application information and avoid the submission of mutually exclusive applications. That MOA largely mirrors one used successfully by FACs in coordinating applications for Sprint-vacated spectrum that was subject to the same "no mutual exclusivity" edict.

The Sprint-vacated MOA works effectively because the initial applications are limited to PS entities of which there are a limited number in any geographic area. Moreover, the majority of PS applicants are seeking expansion channels, not spectrum to deploy a new system. They are motivated to compromise when there is insufficient spectrum to accommodate all requests, since some capacity relief is better than none. Additionally, because these applications typically do not propose the same transmitter site, there sometimes are technical solutions that can be used to avoid mutual exclusivity while still maximizing the utilization of this spectrum.

The majority of FACs that executed the EB/GB MOA are confident that the same would be true if all 800 MHz incumbents were granted a preference for all EB/GB channels. The

volume of applications would be limited, so establishing a first-in-time queue would be possible. Incumbents would have the same motivation to resolve potential mutual exclusivity through compromise as was exhibited by PS applicants for Sprint-vacated channels. The “daisy chain” problem that arises when geographically disparate site- and frequency-specific applications all are seeking spectrum from the same pool would be greatly minimized.

Opening the door for the EB SMR and the GB General Pool channels to all applicants may make resolving mutual exclusivity through compromise and engineering solutions exceedingly difficult. The determination of which applicants are “first” and entitled to channels may be based on differences of milliseconds in the application exchange process. This result may be inevitable for the spectrum not acquired by incumbents, even if the FCC adopts the LMCC-recommended incumbent priority access proposal. Nonetheless, sound spectrum and public policy requires that it be avoided when possible by first allowing licensees that have demonstrated a commitment and ability to deploy systems that serve public needs access to this scarce resource.

II CONCLUSION

The LMCC requests that the FCC adopt rules in this proceeding consistent with the positions detailed above.
EXHIBIT A

CSAA Proposal for Central Station Channels

Nationwide Channels

- The nationwide central station voice channels and associated 12.5 kHz offset channels (footnote 27 in the NPRM) would remain assigned for central station use.
- The LMCC would support allowing primary data use on the five central station voice channels (three urbanized and two nationwide pairs).
- CSAA would consider concurring with waiver requests to utilize the central station voice channels based on a showing that there are no exclusive use (FB8) frequencies available in the applicant’s primary pool.

Urban Channels

- The urban central station voice channels (460.900, 465.900, 460.925, 465.925, 460.950 and 465.950 MHz) would be available for all Part 90 applicants proposing FB8 operations. Mobile-only operations will not be allowed by non-central stations. Applicants shall seek concurrence from CSAA for use of these channels for the purpose of ensuring that incumbent central station alarm operations will be protected from interference in accordance with the FCC’s rules and protocols that are developed as part of an LMCC consensus plan for this spectrum. It is contemplated that the protection protocol will be similar to the consensus plan adopted for the 173 MHz band, such that applicants will demonstrate that the proposed 21 dbuVm interference contour will not overlap the incumbent central station licensee’s area of operation, as reflected on its license.

- Incumbent central station systems could be licensed for primary voice and/or data as FB8 with a protected service area defined by the LMCC even if operating in conventional mode.
- Non-central station systems will be subject to the requirements of FCC Rule Section 90.187 with regard to co-channel non-central station licenses.
**Last Available Voice Channel**

In order to ensure the availability of at least one higher powered voice/data frequencies for future central station operations, CSAA will not be required to concur in, and other frequency coordinators shall not coordinate, an application for a central station urban channel (or a central station nationwide channel with a waiver request) if it would utilize the last available central station voice channel pair within a 75-mile radius of the center coordinates (as specified in FCC Rule Section 90.741) of the urbanized area(s) defined in FCC Rule Section 90.35(c)(63).

**Low-power Group D Channels**

All of the 12.5 kHz and 6.25 kHz low-power Group D Channels would remain assigned for central station use only, as currently designated by Rule Sections 90.35(c)(63), (65), (66), (83) and (87), as applicable and Rule Section 90.267(f)(5), except that central station alarm signaling on these frequencies will be co-primary to with regard to co-channel or adjacent channel base, mobile or data operations. Voice operations will not be allowed on any of the Group D Channels.
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