Before the

FEDERAL COMMUNICATIONS COMMISSION

Washington, D.C. 20554

In the Matter of	)	
	)	
Part 22, Subpart E -	)	WT Docket No. 14-180
Technical and Operational Flexibility	)	

To: Chief, Wireless Telecommunications Bureau

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 Public Notice regarding additional technical and operational flexibility in the rules governing the Part 22, Subpart E, Paging and Radiotelephone Service.[1] The spectrum under consideration, in particular the VHF and UHF channels designated for one-way or two-way mobile operation under FCC Rule Section 22.561, has become an integral part of many Private Land Mobile Radio ("PLMR") systems operating primarily on Part 90 frequencies. These systems increasingly utilize digital trunked technology and thereby achieve the very significant spectral efficiency enhancements that can be derived from more advanced equipment. Modifying the Part 22, Subpart E rules to align them more closely with the Part 90 rules governing VHF and UHF channels will facilitate the more seamless integration of this spectrum into Part 90 PLMR systems.

I INTRODUCTION

The LMCC is a non-profit association of organizations representing virtually all users of land

[1] Wireless Telecommunications Bureau Reminds Paging and Radiotelephone Service Licensees of Certain Technical Rules and Seeks Comment on the Need for Technical Flexibility, *Public Notice*, WT Docket No. 14-180, 29 FCC Rcd 12673 (WTB, rel. Oct. 17 2014) ("Public Notice").

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, 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")

These organizations, individually and collectively, work with their members and with the FCC in an effort to maximize the use of scarce spectrum resources. Adopting more flexible technical and operational rules for Part 22, Subpart E frequencies will further this objective.

II THE PART 22, SUBPART E RULES DO NOT REFLECT THE CURRENT, PRIMARY USE OF THE ONE-WAY AND TWO-WAY MOBILE OPERATION CHANNELS.

The telecommunications world has been transformed in the two decades since the FCC last undertook a major re-evaluation of these Part 22 rules.[2] Although the Commission did adopt a

[2] *See* Revision of Part 22 of the Commission's Rules Governing the Public Mobile Services, *Report and Order*, CC Docket No. 92-115, 9 FCC Rcd 6513, (1994).

critical rule amendment in 2005, deleting the requirement that Part 22 licensees operate as common carriers,[3] additional changes are overdue.

The Part 22, Subpart E rules were designed to govern the operation of one-way paging and two-way mobile telephone systems. Both were thriving segments of the telecommunications industry for many years, delivering vital services to the American public, but both have been very significantly impacted by the ubiquity of cellular/PCS service and its many capabilities. There are only a relatively small number of commercial VHF and UHF one-way paging systems still in operation and few, if any, Part 22 two-way mobile systems.

However, as the systems for which these frequencies had been designated originally have largely ceased operating, the PLMR community identified these channels as well-suited to function as control channels or to provide additional capacity in systems comprised primarily of Part 90 spectrum. Two events triggered the alternative use of this spectrum. First, Section 337(c) of the Communications Act provided the Public Safety community with the opportunity to secure these frequencies on a site-specific basis through waivers of the FCC rules.[4] Second, a number of private carriers and Industrial/Business entities participated in the auction processes when the FCC made "overlay" geographic authorizations available pursuant to competitive bidding procedures.[5] Subsequently, there has been an active secondary market in these auctioned channels, including acquisition by Public Safety entities of primarily VHF geographic rights.

This spectrum has been crucial in the ability of many Part 90 licensees to deploy advanced digital technology that in some cases requires, and in all instances works optimally, when there is at

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[3] *See* Amendment of Part 22 of the Commission's Rules to Benefit the Consumers of Air-Ground Telecommunications Services, *Report and Order and Notice of Proposed Rulemaking,* WT Docket No. 03-103, 20 FCC Rcd 4403 (2005).
[4] 47 U.S.C. §337(c).
[5] *See* Revision of Part 22 and Part 90 of the Commission's Rules to Facilitate Future Development of Paging Systems, Implementation of Section 309(j) of the Communications Act – Competitive Bidding, *Second Report and Order and Further Notice of Proposed Rulemaking*, WT Docket No. 96-18, PP Docket No. 93-253, 12 FCC Rcd 2732 (1997).

least one exclusive control channel in the system. Part 90 VHF and UHF frequencies historically were assigned on a shared basis and, even with the adoption of Rule Section 90.187, it is extremely difficult to acquire channel exclusivity on such frequencies anywhere near a major urban area. Thus, these Part 22 channels have become a spectrum resource to optimize Part 90 systems, including trunked and digital systems. Modifying the rules that govern them to track more closely the Part 90 frequencies that comprise the balance of these systems clearly makes good regulatory sense and is in the public interest.[6]

III PROPOSED RULE CHANGES

A) Section 20.9(a)(6).

As noted above, the FCC modified the Part 22 rules almost 10 years ago to delete the requirement that all Part 22 licensees be classified as common carriers. However, it did not also modify Section 20.9(a)(6), which includes operations on Part 22, Subpart E spectrum as "mobile services [that] shall be treated as common carriage services and regulated as commercial mobile radio services…"[7] For this reason, entities other than common carriers, including Public Safety and Industrial/Business applicants, must request a waiver of Section 20.9(a)(6) when seeking authority to utilize these channels. The Commission grants such waivers routinely, but deletion of this subsection, which is inconsistent with the modified eligibility standard in Section 22.7, would eliminate an unnecessary burden on applicants and on the FCC staff.

B) Section 22.561

In the Public Notice, the FCC suggests that greater flexibility in the types of uses and

[6] Although outside the scope of this proceeding, the LMCC recommends that the FCC consider reassigning to Part 90 the frequencies authorized in Section 22.561 with appropriate provisions to protect any remaining paging and mobile telephone operations.

[7] 47 C.F.R. §20.9(b)(6).

technologies that are permitted to operate on this spectrum could allow the introduction of innovative technologies, the deployment of narrowband equipment, and/or the use of offset frequencies by licensees who hold adjacent channel blocks in the same geographic area.[8] In particular, it notes that the use of offset frequencies might allow more applicants to secure Canadian approval for operations above Line A.

The LMCC strongly supports modifying this rule to allow operations that utilize more than 20 kHz bandwidth within any individual channel, provided they conform to the emission limitations in Section 22.359. It also recommends authorizing entirely flexible bandwidth utilization within a block of contiguous channels, again provided that the emission limitations of Section 22.359 are satisfied at each outer band edge. While flexibility may be advantageous even for analog systems, the PLMR community has begun to deploy a variety of digital TDMA and FDMA technologies. Some utilize very narrowband technology, while others occupy greater bandwidths within which multiple communications paths are provided. As the Commission has noted, the use of offset frequencies may permit greater use of this spectrum in areas proximate to the Canadian border, where rejection of center channel applications by Industry Canada is common. The FCC's rules should accommodate any of these choices, as long as their deployment does not adversely affect other licensees and also should explicitly authorize the use of these channels in trunked system configurations.

C) Section 22.565

The LMCC recommends modification of this rule to add power and antenna height limits for Section 22.561 channels used in systems also utilizing Part 90 spectrum that are consistent with the limits available for Part 90 systems with an 80 km service area radius, as defined in Rule

[8] Public Notice at 2.

Section 90.205 Tables 1 and 2, but without the need for a "safe harbor" justification. Some Part 90 systems undoubtedly will operate with smaller service radii and at lower effective radiated power ("ERP") levels so not all Section 22.561 channels will require the maximum ERP, but the maximum should be available when needed to ensure consistent power levels across all channels in a system.

D) Section 22.567

The protection criteria in this rule are highly conservative. They presumably are designed to protect the operation of one-way systems where coverage is not limited by talk-back capability. While the existing criteria should be retained for purposes of protecting the relatively small number of one-way systems still operating on Section 22.561 channels, the contour analyses in Section 90.187 are a more appropriate standard for defining interference protection for two-way systems, including those that also involve Part 90 channels, and should be added to this Section.

E) Sections 22.515 and 22.561

Many Part 90 systems, in particular Public Safety systems, include talk-around capability to permit communications between mobiles and portables when those units are outside the range of the associated repeater. This avoids the need to equip radios with a separate channel for such transmissions and thus promotes spectrum efficiency while also addressing an important operating requirement for many two-way systems. These rules should be modified to permit mobile-to-mobile talk-around by allowing mobiles to transmit on base frequencies for that purpose.

F) Section 22.503(k)

The LMCC also recommends that the FCC modify this rule, which sets out the coverage

requirements for geographic area licenses. The current obligation is tied exclusively to population coverage. That standard makes sense for commercial common carrier systems intended to serve the general public since it is in their interest to deploy facilities that maximize the number of people within their service area. The same is not true for Public Safety or Industrial/Business systems that are designed to address coverage requirements that are based on the areas where they conduct their governmental or enterprise activities. In the case of Public Safety licensees, they generally do not have authority to operate outside their jurisdictional boundaries, boundaries that are not tied to Economic Area ("EA") boundaries, even if they wished to do so.

Because these systems are not necessarily located in or near population centers, an exclusively-population based coverage standard can be extremely difficult to meet.[9] It is further complicated because finding a purchaser for a single 20 kHz bandwidth channel in the remainder of an EA can be extremely challenging, sometimes impossible. Since there is no provision for a licensee to return to the FCC the portion of the EA that it does not need or perhaps is legally prohibited from occupying, spectrum that otherwise could be put into productive use by a Public Safety or Industrial/Business licensee within a portion of an EA may remain entirely unused. The LMCC believes the public interest would be better served by modifying this rule to accommodate this type of non-commercial operation.

Moreover, because the PLMR user community has become increasingly aware of the utility of this spectrum in primarily Part 90 systems, even in lightly populated areas, it would be helpful if the FCC would implement a more timely and predictable schedule for re-auctioning recovered

[9] The rule does allow licensees to make an alternative "substantial service" showing. However, to date, the FCC has defined that term narrowly vis-à-vis this spectrum, including declining to consider a town's provision of police, fire and emergency services as "substantial" for purposes of satisfying this requirement.

and never acquired Section 22.561 channels.

G) Operations Above Line A

The Commission's suggestion that the use of offset channels might lessen the difficulty of obtaining Canadian clearance for facilities located above Line A is a positive one that should be implemented. The LMCC also recommends changes in two related areas.

First, it would be helpful to codify in the rules or in a Public Notice the specific information needed when filing for an above-Line A site related to a geographic license and the process for submitting the data. This has been a source of some confusion, since ULS does not allow certain information that Canada now requires to be included in the electronic Form 601 filing for a geographic license. Instead, it must be provided as an attachment. While the rigidity of ULS may not allow a different filing solution, the FCC should provide guidance for applicants, and thereby eliminate an unnecessary burden on the FCC staff and on applicants when the information must be submitted after the fact.

Second, unless prohibited by the treaty governing this spectrum, the LMCC urges the FCC to consider some type of conditional license/field test authority when an applicant submits a Bullington engineering study and demonstrates that no greater than -148 dBw signal strength will be received by the protected Canadian licensee. The Industry Canada application review process does not always take years as it frequently did in the past, but it still is often measured in months rather than days or even weeks. It also can be an extremely lengthy process to arrange a field study with Canada, even when the engineering analysis, conducted using their preferred Bullington model, satisfies their -148 dBw interference protection standard. Authorizing U.S. licensees to begin operating on a secondary, non-interference basis, conditioned on providing the requisite engineering showing, might encourage Industry Canada

to expedite its review process.

H) Equipment Certification

As described above, many channels authorized under Section 22.561 now are integrated into systems comprised primarily of Part 90 spectrum for use as control and additional voice channels. The technical specifications governing VHF and UHF channels in both rule parts are similar, albeit not identical, and, in the LMCC's opinion, should be made as consistent as possible as proposed herein. Additionally, to the extent not already authorized under Section 2.1043, the LMCC recommends that the FCC's permissive change policies be extended to include the addition of Part 22 certification to equipment already certified for VHF and UHF Part 90 spectrum and vice versa.

I) Section 22.143

The LMCC recommends that Section 22.561 channels be exempt from the subsection (a) requirement that construction cannot commence until 35 days after release of a Public Notice listing the application for the facility as accepted for filing. Subsections (b) and (c)(1), (3), and (4) would remain effective and construction would be entirely at the risk of the applicant.

J) Section 22.303

The Commission recently requested comments regarding enhancements to its Universal Licensing System, including its license posting and record retention rules.[10] Any rule changes adopted in that proceeding should be applied to this rule as well.

K) Section 22.313

The station identification rules applicable to Section 22.561 channels should be modified to

[10] *See* Wireless Telecommunications Bureau Announces Enhancements to the Commission's Universal Licensing System and Antenna Structure Registration System for Providing Access to Official Electronic Authorizations and Seeks Comment on Final Procedures, *Public Notice*, WT Docket No. 14-161, DA 14-1478 (rel. Oct. 10, 2014).

mirror the rules in Section 90.425.

L) Section 22.321

This rule sets out detailed obligations regarding equal employment opportunities for all Public Mobile Service licensees, which now includes governmental and Industrial/Business licensees. While the LMCC expects all PLMR licensees to follow Federal and, if applicable, state non-discrimination laws, it recommends that this rule be modified to apply only to Commercial Mobile Radio Service licensees.

M) 929/931 MHz Frequencies

While also outside the scope of this proceeding, the FCC should explore rules to promote the more intensive utilizations of 929 MHz paging-only frequencies licensed under Part 90 and 931 MHz paging-only frequencies licensed under Part 22. Given the limited number of stand-alone paging systems still in operation, it may be possible to pair these frequencies and provide for two-way operation.

IV CONCLUSION

The LMCC appreciates the FCC's initiative in opening an investigation of this important subject. It believes the rule changes recommended above will benefit the public by allowing more intensive use of these channels for a wide variety of system types and technologies.

Respectfully submitted,

/s/

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December 17, 2014

Your submission has been accepted

ECFS Filing Receipt - Confirmation number: 20141217301464

Proceeding

Name	Subject
14-180	WTB Seeks Comment on Part 22 Paging/Radiotelephone Technical Flexibility

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Details

Type of Filing: COMMENT

Document(s)

File Name	Custom Description	Size
LMCC Comments re Part 22 Rule Mod.pdf		149 KB

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