

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

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

In the Matter of)
)
Amendment of Part 90 of the) PR Docket No. 89-552
Commission's Rules to Provide) RM-8506
for the Use of the 220-222 MHz Band)
by the Private Land Mobile)
Radio Service)
)
Implementation of Sections 3(n) and 332) GN Docket No. 93-252
of the Communications Act)
)
Regulatory Treatment of Mobile Services)
)
Implementation of Section 309(j) of the) PP Docket No. 93-253
Communications Act -- Competitive Bidding)

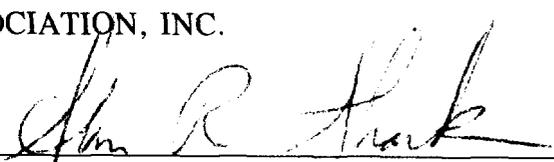
To: The Commission

PETITION FOR RECONSIDERATION

Respectfully submitted,

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May 5, 1997

1. The American Mobile Telecommunications Association, Inc. ("AMTA" or "Association"), in accordance with Section 1.429 of the Federal Communications Commission ("FCC" or "Commission") Rules and Regulations, respectfully submits its Petition for Reconsideration in the above-entitled proceeding.¹ In the Order, the Commission has adopted a new regulatory framework for the 220 MHz band. The FCC's action was taken as part of the agency's ongoing effort to comply with Section 332 of the Communications Act of 1934, as amended, "consistent with the policy of regulatory symmetry as reflected in the revisions to Section 332 of the Act".²

2. AMTA believes, for the most part, that the decisions in the Order are sound. In particular, the Association supports the FCC's retention of key aspects of the existing bandplan. The Association's comments in earlier phases of this proceeding had emphasized the importance of maintaining the current Phase I non-nationwide assignment plan for Phase II geographic licensees if the Commission hoped to promote a robust 220 MHz industry that could compete effectively in the wireless marketplace.³ The FCC's decision to do so will greatly facilitate the co-existence and possible integration of Phase I and Phase II systems with a resulting expansion of service opportunities for subscribers.

3. However, there are two areas in which the Association believes the recently-adopted 220 MHz rules will significantly hamper the fullest development of these systems vis-a-vis competitive offerings to the detriment of operators that have invested or might otherwise

¹ 47 C.F.R. § 1.429; Third Report and Order and Fifth Notice of Proposed Rulemaking, PR Docket No. 89-552, FCC 97-57 12 FCC Rcd ___ (rel. Mar. 12, 1997) ("Order").

² Order at ¶ 1; Omnibus Budget Reconciliation Act of 1993, Pub. L. No. 103-66, Title VI, §§ 6002(b)(2)(A), 6002(b)(2)(B), 107 Stat. 312, 392 ("Budget Act"). Section 3(n) of the Communications act has been redesignated as Section 3(14). See Section 3(c)(4) of the Telecommunications Act of 1996. The reference to former Section 3(n) in Section 332 has been changed to a reference to Section 3. See Section 3(d)(2) of the Telecommunications Act of 1996.

³ See, e.g., AMTA Comments filed September 27, 1995 at ¶¶ 22-4.

invest in them, as well as the customers already served and who might be served by them. Specifically, AMTA urges the FCC to reconsider its decisions regarding the protection of Phase I non-nationwide licensees and the permissibility of Phase I non-nationwide minor modifications. In the Association's opinion, unless the FCC reconsiders its actions on those issues, consistent with the recommendations contained herein, the agency will have fallen far short of providing genuine regulatory symmetry between Phase I non-nationwide licensees and their Commercial Mobile Radio Service ("CMRS") and Private Mobile Radio Service ("PMRS") competitors.⁴

I. INTRODUCTION

4. AMTA is a nationwide, non-profit trade association dedicated to the interests of the specialized wireless communications industry. The Association's members include trunked and conventional 800 MHz and 900 MHz Specialized Mobile Radio ("SMR") Service operators, licensees of wide-area SMR systems, and commercial licensees in the 220 MHz band. These members provide commercial wireless services throughout the nation.

5. AMTA's 220 MHz Council ("Council") was formed in February, 1994. It includes representatives of the vast majority of incumbent licensees, 220 MHz network organizers and narrowband 220 MHz equipment suppliers. The Council is actively involved in all aspects of the 220 MHz marketplace. Thus, AMTA and the Council have a direct, significant interest in resolving the issues raised above.

II. RECONSIDERATION REQUESTS

A. The Rules Adopted Do Not Provide Adequate Co-Channel Protection for Phase I Non-Nationwide Licensees

6. Throughout the course of this proceeding, the FCC and the industry have

⁴ Phase I non-nationwide licensees will be classified as CMRS or PMRS depending on whether or not the system is interconnected with the Public Switched Network ("PSN"). 47 C.F.R. § 20.3.

attempted to achieve a proper balance between the interests of incumbent licensees that already have begun to build a successful, cost- and spectrum-efficient industry, and parties that will acquire authorizations pursuant to the revised regulatory structure. The former are the pioneers of a service that has had an unusually difficult history. They waited years for the issuance of their licenses while the FCC struggled to resolve multiple regulatory problems, and only in the past few years have had an opportunity to begin to implement their facilities and develop their business plans. They now have sufficient operational experience to enable them to define the real world requirements of their systems and their customers, and to determine the technical parameters needed to permit their systems to serve those requirements.

7. The latter are as yet "unborn" licensees, but their operational requirements presumably will mirror those of the incumbents.⁵ Although the revised regulatory scheme adopted in the Order dictates that Phase II licensees must acquire their authorizations through competitive bidding, and that their licenses will be geographic-based rather than site-specific, the functional capabilities of Phase I and Phase II systems are expected to be essentially identical.⁶

8. The most critical consideration for both categories of licensees is that their systems perform to a level that will enable them to attract and retain subscribers, both in terms of coverage and service quality. Co-channel interference which degrades system performance

⁵ In fact, as it has noted previously in this proceeding, AMTA anticipates that many Phase I incumbents will become successful Phase II licensees because of their existing investment in and commitment to the 220 MHz industry.

⁶ The Order does provide for greater technical flexibility than was available at the time Phase I non-nationwide incumbents were required to meet their construction deadlines. See Order at §§ 96-119. To the extent Phase II licensees choose non-narrowband technologies, the technical capabilities and requirements of their systems will be different from those implemented under the original rules.

typically is not a one-way street; it affects the operation of both stations, if not equally, at least to the extent that there is a mutual benefit in avoiding such problems. Thus, in this respect, AMTA is firmly convinced that there is a commonality of interest between Phase I and Phase II operators in seeing that the FCC adopts co-channel separation criteria that properly protect the performance of all systems.

9. In the Association's opinion, the rules adopted in the Order do not provide adequate protection between Phase I and Phase II licensees.⁷ All interested parties had urged the Commission to modify its proposal to reflect what 220 MHz operational experience had begun to teach: the propagation characteristics of the band and the predominant use of single sideband, rather than FM, technology demanded greater co-channel protection to achieve the FCC's own definition of an appropriate service level for the band.⁸ However, contrary to that overwhelming record support for adoption of a modified rule, the FCC declined to do so stating that the parties' arguments:

"[w]ere not consistent with the methodology we have used to provide for co-channel protection for incumbent licensees in other auctionable land mobile services (e.g., 800 MHz and 900 MHz SMR).⁹

⁷ Technical considerations would support an improved co-channel separation standard between Phase I systems as well. However, because those stations have been constructed in accordance with the existing criteria, and are operating pursuant to final FCC grants, AMTA does not recommend any change in the Phase I to Phase I protection requirements. Instead, the industry hopes to resolve whatever interference problems arise without FCC involvement. The likelihood of doing so is significantly increased because both parties will be subject to identical regulatory obligations and entitled to identical regulatory protection. Thus, unlike the Phase I/Phase II separation criteria adopted in the Order, neither party will have superior regulatory rights.

⁸ See, e.g., Comments of AMTA, Comtech Communications, Inc., E.F. Johnson Company, Incom Communications Corporation, Securicor Radiocom, Ltd., SMR Advisory Group, and U.S. Mobilecomm, Inc.

⁹ Order at ¶ 175.

The FCC also noted:

...the commenters do not define what is meant by a reliable signal or reliable service in the context of the 220 MHz service -- nor do they draw a relationship between the use of these terms and our adoption of criteria to provide for the protection of 220 MHz signals in the presence of interfering signals. The signal contour at which they claim "reliable service" may be provided or where a "reliable signal" may be received by a mobile (e.g., the location of the 32 dBu or 28 dBu contour) is therefore not determinative in deciding the appropriate 220 MHz signal contour to be protected.¹⁰

10. AMTA respectfully disagrees with the FCC's determinations. The modifications recommended by the industry are consistent with the methodology employed to define protection criteria in competitive services and with the Commission's own definition of the level of service to be provided. It is the FCC's decision **not** to modify its rules that will create a regulatory imbalance between the 220 MHz and other commercial wireless services to the detriment of this industry and the customers it does and will serve.

11. In their original comments on this issue, virtually all parties indicated that a 28 dBu, rather than the FCC's proposed 38 dBu, contour was the appropriate measurement for a 220 MHz system's protected service contour, and that the co-channel signal should be 10 dB less than the desired signal at the boundary of that service area.¹¹ They stated that 220 MHz systems were essentially outperforming the Commission's original coverage estimation by a significant degree in the real world. They cited other instances in which the FCC responded to data regarding actual versus predicted system coverage by modifying its rules consistent with practical experience.¹²

¹⁰ Order at ¶ 177 (emphasis in original).

¹¹ See n. 8. Incom recommended a 32 dBu contour measurement.

¹² In the Order, the Commission disagrees that its 1992 adoption of a 32 dBu contour for purposes of defining a cellular licensee's service area constituted a change from the 39 dBuV/m contour used previously for purposes of defining the area within which a licensee was providing "reliable service" for coverage purposes, a distinction that AMTA has difficulty appreciating

12. Ongoing operational experience since those filings has only confirmed the original assessments. Members of the 220 MHz industry are in the process of finalizing data to be submitted no later than the reply date in this proceeding that will confirm that the actual reliable service area of a 220 MHz system is represented by a 28 dBu, not a 38 dBu, contour. That is, consistent with the Commission's definition, 220 MHz systems operating at an authorized 500 watts effective radiated power ("ERP") at 500 feet height above average terrain ("HAAT") provide "a high quality signal to about 50 percent of the locations, 50 percent of the time" throughout a 28 dBu contour.¹³

13. Based on this information, the Association recommends geographic separation between Phase I and Phase II licensees consistent with the protection of a Phase I licensee's 28 dBu reliable service area, plus a 10 dB buffer zone between systems.¹⁴ This change also will need to be reflected in subsections (b)(1)(i)(A)(B) and (b)(ii) to correct those analyses from a 38 dBu to a 28 dBu service contour. A failure to adopt co-channel protection criteria based on a 28 dBu contour definition for 220 MHz reliable service areas, with a 10 dB buffer zone, denies Phase I 220 MHz licensees a quality of service comparable to that of competitive wireless systems. Thus, it denies them the regulatory symmetry Congress directed the FCC to establish, and which the FCC is avowedly seeking in this proceeding.

14. There are several reasons the FCC's original estimation of the appropriate co-channel separation requirements has proven inadequate. First, and most critically, the FCC may have underestimated the propagation characteristics of the band. 220 MHz signals simply talk

from any practical perspective.

¹³ Order at ¶ 176.

¹⁴ AMTA is working with a number of 220 MHz operators to determine that mileage separation as part of its ongoing data analysis.

considerably farther than those in the 800 MHz and 900 MHz bands from which the 220 MHz protection criteria seemingly were extrapolated. That immutable distinction is not reflected adequately in the 2 dB difference between the benchmark 40 dBu contour at 800 MHz and 900 MHz and the 38 dBu contour adopted at 220 MHz.¹⁵

15. The inadequacy of the current criteria is exacerbated by the fact that Phase I licensees utilize single sideband ("SSB"), not FM, technology, as required by the original 220 MHz rules. Unlike FM technology, there is no discernible "capture" effect with SSB equipment. When the signals from co-channel FM systems overlap, only the desired signal will be heard by a mobile as long as the undesired signal is at least 10 dB down; the desired signal "captures" the mobile and the undesired signal is not heard at all. By comparison, because SSB does not produce that capture effect, mobiles hear both signals in areas of overlap, irrespective of the relative strengths of the signals. Without sufficient geographic separation between co-channel facilities to enable each to cover its reliable service area free from competing signals, the units associated with both Phase I and Phase II systems will experience unacceptable levels of interference.¹⁶

16. In AMTA's opinion, both the public interest and the interests of the 220 MHz industry will be irreparably harmed if the FCC again declines to revisit its Phase I/Phase II separation criteria. With most construction completed in 1996, this industry is already serving nearly 20,000 subscriber units. This number is expected to continue to increase as some existing 800 MHz users elect to move to these lower-cost, primarily dispatch systems in lieu of

¹⁵ In fact, AMTA has been unable to determine from the record in this proceeding on what technical basis the FCC selected its 38 dBu contour standard.

¹⁶ The same problem is likely to occur in the areas around Phase II borders since the FCC has adopted a 38 dBu benchmark for that purpose also.

converting to higher-capacity, digital networks. The customers using those 220 MHz units are currently operating throughout the 28 dBu reliable service areas that are a direct result of the propagation characteristics of the band. If the FCC maintains its recently-adopted separation criteria, a significant portion of those customers' existing service areas will become unusable once Phase II systems are implemented. Similarly, customers of Phase II licensees will discover that their systems are not useable in areas where signals from the two facilities overlap. This result will not serve the interests of those customers, the operators that have invested in the stations to serve them, or the FCC.

B. The FCC Should Adopt Contour-Defined Geographic Licensing and Minor Modification Provisions for Phase I Non-Nationwide Licensees.

17. Phase I non-nationwide licensees, like virtually all licensees authorized by the FCC prior to the Budget Act, were granted site-specific authorizations.¹⁷ They are authorized to transmit on specific frequencies at a specific set of coordinates. As the FCC has embraced the concept of geographic licensing, not only for virgin spectrum but in awarding "overlay licenses" for so-called white space in encumbered bands, it also has adopted a limited degree of geographic flexibility for incumbents. Although non-geographic incumbents typically are not permitted to relocate their facilities freely, even prior to the award of the overlay geographic license, the FCC has recognized:

there may be circumstances in which [a geographic] licensee should be required to permit incumbents to make minor alterations to their service areas to preserve the viability of

¹⁷ Cellular systems were the first wireless telecommunications systems to be awarded geographic-based licenses. Memorandum Opinion and Order on Reconsideration, CC Docket No. 79-318, 89 FCC Rcd 58 ¶¶ 62-63 (1982). They remained the only systems so licensed until the Budget Act both directed the FCC to establish regulatory symmetry among competitive services and authorized the Commission to award licenses by competitive bidding, a process that is simplified immensely if the properties being auctioned are defined geographically rather than by an individual site(s).

their systems.¹⁸

18. Thus, in both the 800 MHz and 900 MHz bands, the FCC has adopted provisions whereby incumbents are permitted to modify the technical parameters of their stations as long as doing so does not expand their service contour, as defined for the particular frequency band.¹⁹ This enables incumbent licensees to make minor modifications as needed to maintain a system's technical and economic viability. They are able to change power levels and antenna heights, and even to add or relocate stations in response to customer demand or competitive pressures, as long as doing so does not expand their contours. Even this minimal flexibility prevents site owners from raising their rental rates with impunity, knowing that they have a captive audience, and takes into account the fact that sites may become unusable for a variety of reasons. The Commission even has provided for the conversion of multiple site-specific incumbent 800 MHz and 900 MHz authorizations with overlapping contours into a "mini"-geographic license.²⁰

19. Inexplicably, however, the FCC has denied even this minimal flexibility to Phase I non-nationwide licensees. Although the co-channel rules governing Phase I/Phase II separation requirements are predicated on protecting the incumbent's service area contour, whatever that contour ultimately is determined to be, there are no provisions for Phase I operators to modify their authorizations at all, even if doing so does not expand that contour. In fact, the Order specifically states:

[Phase I non-nationwide] [l]icensees shall be required to operate at their initially

¹⁸ First Report and Order, Eighth Report and Order, and Second Further Notice of Proposed Rulemaking, 11 FCC Rcd 1463 at ¶ 86 (1995).

¹⁹ See, 47 C.F.R. §§ 90.667(a) and 90.693(a).

²⁰ See, 47 C.F.R. §§ 90.667(b) and 90.693(b).

authorized ERP and HAAT, and will not be permitted to seek modification of their authorizations to operate at a higher ERP or HAAT.²¹

The 220 MHz rules contain no provisions comparable to those adopted for 800 MHz and 900 MHz incumbents that would permit even de minimis license modifications, irrespective of the impact of the change on the Phase II system. They provide no opportunity to make the type of minor modifications authorized in all other wireless services.²² Again, this denies 220 MHz incumbents regulatory parity with wireless competitors, all of which are entitled to some level of licensing flexibility.

20. AMTA urges the FCC to adopt rules for Phase I non-nationwide licensees consistent with those cited above for 800 MHz and 900 MHz incumbents. Phase I operators should be permitted to modify their authorizations when doing so does not expand their 28 dBu contour, and should be permitted to convert overlapping incumbent systems into a single geographic license.²³

III. CONCLUSION

For the reasons described above, AMTA urges the Commission to adopt rules for Phase I non-nationwide licensees consistent with those cited above for 800 MHz and 900 MHz incumbents, and with the specific technical recommendations contained herein.

²¹ Order at ¶ 174.

²² FCC Rule §§ 90.751, 90.753 and 90.755 provided a time and geographically limited opportunity for Phase I licensees to modify their authorizations with modifications limited to base station relocations. Because that modification window closed on May 1, 1996, it will provide no relief for an operator whose tower is taken down or falls down in the future.

²³ If the FCC adopts the provisions recommended, then it also should provide for the partitioning of Phase I non-nationwide licenses, an option that AMTA considered not germane to licenses defined only by their authorized sites. See AMTA Comments, Third Report and Order, Fifth Notice of Proposed Rulemaking, PR Docket 89-552, ¶ 8 (filed Apr. 15, 1997).

CERTIFICATE OF SERVICE

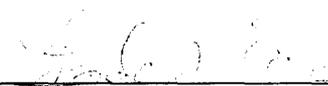
I, Linda J. Evans, a secretary in the law office of Lukas, McGowan, Nace & Gutierrez, hereby certify that I have, on this 5th day of May 1997, caused to be mailed a copy of the foregoing Petition for Reconsideration to the following:

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