

Before the
Federal Communications Commission
Washington, D.C. 20554

FCC MAIL ROOM

2001 MAY -9 P 5: 14

In the Matter of)
)
Amendment of the Commission's Rules to)
Establish New Personal Communications)
Services, Narrowband PCS)
)
Implementation of Section 309(j) of the)
Communications Act - Competitive Bidding,)
Narrowband PCS)

GEN Docket No. 90-314
ET Docket No. 92-100 RECEIVED
PP Docket No. 93-253 ✓

THIRD REPORT AND ORDER AND ORDER ON RECONSIDERATION

Adopted: April 19, 2001

Released: May 3, 2001

By the Commission:

I. INTRODUCTION

1. In this order, we adopt further modifications to our existing narrowband Personal Communications Services (PCS) rules, in three major respects. First, we will channelize and license the one megahertz of narrowband PCS spectrum that has heretofore been held in reserve. Second, we will re-channelize 712.5 kilohertz of previously channelized spectrum for which licenses have not been auctioned. Third, we adopt a narrowband PCS channel band plan that includes both nationwide and Major Trading Areas (MTA) licenses.¹ In adopting these new rules, we also address the petitions for reconsideration filed in response to the *Narrowband PCS Second R&O/Second Further Notice*.² The action we take today resolves the remaining issues concerning narrowband PCS in preparation for auctioning licenses for the remaining narrowband PCS spectrum in the near future.

¹ Rand McNally & Company, which owns the copyright to MTAs, has granted a blanket license to parties with an interest in this proceeding to use MTAs, and there is therefore no impediment to their use for narrowband PCS. MTAs are based on the Rand McNally 1992 Commercial Atlas & Marketing Guide, 123rd Edition, at pages 38-39 (MTA Map). Rand McNally organizes the 50 States and the District of Columbia into 47 MTAs. The MTA Map is available for public inspection in the FCC's Library, Room TW-B505, 445 12th Street SW, Washington, D.C.

² Amendment of the Commission's Rules to Establish New Personal Communications Services, Narrowband PCS, GEN Docket No. 90-314, ET Docket No. 92-100, Implementation of Section 309(j) of the Communications Act - Competitive Bidding, Narrowband PCS, PP Docket No. 93-253, *Second Report and Order and Second Further Notice of Proposed Rulemaking*, 15 FCC Rcd 10456 (2000) (*Narrowband PCS Second R&O/Second Further Notice*).

II. BACKGROUND

2. In the *PCS First Report and Order*, the Commission provided for the operation of narrowband PCS in three one-megahertz blocks in the 900 MHz band.³ The Commission broadly defined PCS as mobile and fixed communications offerings that serve individuals and businesses, and can be integrated with a variety of competing networks.⁴ The Commission also adopted a spectrum allocation and channelization plan, licensing rules, and technical standards for narrowband PCS.⁵ In the *Competitive Bidding Third Report and Order*, the Commission established competitive bidding rules specifically for narrowband PCS.⁶ On reconsideration of that *Order*, the Commission revised certain auction procedures, expanded special provisions for designated entities in future narrowband auctions, and sought comment on additional designated entity provisions for any future narrowband PCS auction.⁷

3. Currently, as shown in the table below, of the three megahertz of 900 MHz spectrum allocated for narrowband PCS, two one-megahertz spectrum blocks are divided into specific channels for licensing.⁸ The remaining one megahertz of narrowband PCS spectrum was reserved to accommodate future development of narrowband PCS.⁹ The spectrum designated for nationwide, regional, and MTA licensing, as well as the reserve spectrum, is split between three separate spectrum bands that are not contiguous.

³ Amendment of the Commission's Rules to Establish New Narrowband Personal Communications Services, GEN Docket No. 90-314, ET Docket No. 92-100, *First Report and Order*, 8 FCC Rcd 7162 (1993) (*PCS First Report and Order*), on recon., *Memorandum Opinion and Order*, 9 FCC Rcd 1309 (1994) (*PCS MO&O*).

⁴ *PCS First Report and Order*, 8 FCC Rcd at 7164, ¶ 13; see also 47 C.F.R. § 24.5.

⁵ *Id.* at 7164-71, ¶¶ 15-37, 39-54.

⁶ Implementation of Section 309(j) of the Communications Act – Competitive Bidding, PP Docket No. 93-253, *Third Report and Order*, 9 FCC Rcd 2941, 2944-79, ¶¶ 9-89 (1994) (*Competitive Bidding Third Report and Order*).

⁷ Implementation of Section 309(j) of the Communications Act – Competitive Bidding, Narrowband PCS, PP Docket No. 93-253, and Amendment of the Commission's Rules to Establish New Narrowband Personal Communications Services, GEN Docket No. 90-314, ET Docket No. 92-100, *Third Memorandum Opinion and Order and Further Notice of Proposed Rule Making*, 10 FCC Rcd 175 (1994) (*Competitive Bidding Third MO&O/Further Notice*). The term "designated entity" refers to small businesses, rural telephone companies, and businesses owned by minorities and/or women, collectively.

⁸ See 47 C.F.R. § 24.129; see also *Competitive Bidding Third Report and Order*, 9 FCC Rcd at 2944-45, ¶¶ 9-10.

⁹ *Competitive Bidding Third Report and Order*, 9 FCC Rcd at 2944, ¶ 9.

Frequency	Description	Status
901-902 MHz	<ul style="list-style-type: none"> • Nationwide channels (paired with 930 and 940 MHz frequencies) • Regional channels (paired with 930 and 940 MHz frequencies) • MTA channels (paired with 930 and 940 MHz frequencies) • Paging response channels (unpaired) • Spectrum held in reserve 	<p style="text-align: right;"><i>Auctioned 1994</i></p> <p style="text-align: right;"><i>Auctioned 1994</i></p>
930-931 MHz	<ul style="list-style-type: none"> • Nationwide channels (paired with 901 MHz frequencies) • Regional channels (paired with 901 MHz frequencies) • MTA channels (paired with 901 MHz frequencies) • Spectrum held in reserve 	<p style="text-align: right;"><i>Auctioned 1994</i></p> <p style="text-align: right;"><i>Auctioned 1994</i></p>
940-941 MHz	<ul style="list-style-type: none"> • Nationwide channels (paired with 901 MHz frequencies) • Regional channels (paired with 901 MHz frequencies) • MTA channels (paired with 901 MHz frequencies) • Nationwide channels (unpaired) • MTA channels (unpaired) • Spectrum held in reserve 	<p style="text-align: right;"><i>Auctioned 1994</i></p> <p style="text-align: right;"><i>Auctioned 1994</i></p> <p style="text-align: right;"><i>Auctioned 1994</i></p>

4. The Commission conducted a nationwide and a regional narrowband PCS auction commencing on July 25, 1994 and October 26, 1994, respectively. As a result of these two auctions, ten nationwide narrowband PCS licenses and six regional narrowband PCS licenses in five different regions (totaling 30 regional licenses) have been granted.¹⁰ A total of 1,862.5 kHz of narrowband PCS spectrum is currently available for auction.¹¹

5. Following the two narrowband PCS auctions, the Commission proposed new and modified rules in the *Narrowband PCS R&O/Further Notice* to deal with the remaining portion of the narrowband PCS spectrum that had not yet been licensed. The Commission proposed, *inter alia*, to reallocate all of the Basic Trading Area (BTA) channel blocks and some of the MTA channel blocks to create larger service areas, eliminate the rule restricting paging response channels to incumbent paging licensees, channelize and license the reserved one megahertz of narrowband PCS spectrum, and modify its existing construction and minimum coverage requirements.¹²

6. In the *Narrowband PCS Second R&O/Second Further Notice*, the Commission eliminated BTAs as too small to provide a viable narrowband service and adopted MTAs for future

¹⁰ The nationwide narrowband PCS auction commenced on July 25, 1994, and closed after 47 rounds of bidding over a five-day period. See "Announcing the High Bidders in the Auction of Ten Nationwide Narrowband PCS Licenses; Winning Bids Total \$617,006,674," *Public Notice*, PNWL 94-004 (rel. August 2, 1994). The regional narrowband PCS auction began on October 26, 1994, and closed on November 8, 1994, after 105 rounds. See "Announcing the High Bidders in the Auction of 30 Regional Narrowband (PCS) Licenses; Winning Bids Total \$490,901,787," *Public Notice*, PNWL 94-27 (rel. Nov. 9, 1994). Certain licenses have been returned or have cancelled for nonpayment. We will issue by public notice an inventory of all available licenses prior to the next narrowband PCS auction.

¹¹ The remaining channels currently allocated to be licensed as narrowband PCS are found in the 901-902, 930-931, and 940-941 MHz bands. For the current spectrum and channelization plan, see *Competitive Bidding Third Report and Order*, 9 FCC Rcd at 2945, ¶¶ 9-10. See also 47 C.F.R. §§ 24.102, 24.129. In addition, licenses designated as unpaired response channels have not yet been auctioned. See 47 C.F.R. § 24.130.

¹² Amendment of the Commission's Rules to Establish New Personal Communications Services, Narrowband PCS, GEN Docket No. 90-314, ET Docket No. 92-100, Implementation of Section 309(j) of the Communications Act – Competitive Bidding, Narrowband PCS, PP Docket No. 93-253, *Report and Order and Further Notice of Proposed Rulemaking*, 12 FCC Rcd 12972, 12984, 12985, ¶¶ 19-20, 22 (1997) (*Narrowband PCS R&O/Further Notice*).

licensing of narrowband PCS, eliminated the narrowband PCS spectrum aggregation limit, and eliminated the rule restricting paging response channels to incumbent paging licensees while retaining the rule restricting use of the response channels to mobile-to-base transmissions. The Commission also tentatively concluded that it should proceed with the licensing of the one megahertz of narrowband spectrum that had been held in reserve and sought comment on how to channelize this spectrum. The Commission also sought comment on whether to rechannelize the narrowband PCS spectrum that had been channelized previously but had not yet been licensed, in order to create larger spectrum blocks.

7. In response to the *Narrowband PCS Second R&O/Second Further Notice*, the Commission received two petitions for reconsideration, six comments, and four reply comments.¹³ In the petitions for reconsideration, PCIA addressed the nature of the narrowband PCS band plan and PSMI addressed the Commission's elimination of the paging eligibility restriction. The six commenters generally supported the Commission's proposed rules, with some reservation.

III. DISCUSSION

8. In this order, we address in turn (1) the licensing of the reserve spectrum, (2) the band plan for the reserve and other remaining spectrum for which licenses have not been auctioned, including channel size and services area size for all licenses and (3) eligibility restrictions for response channels and the PSMI petition. Because there is some overlap of issues raised in the petitions for reconsideration and the responses to the Second Further Notice of Proposed Rulemaking, we will dispose of each petition as we address the pertinent issue. For the reasons explained below, we grant the PCIA petition in part, deny the PSMI petition, and adopt the proposals of the *Narrowband PCS Second R&O/Second Further Notice* with consideration given to both the PCIA and WebLink band plan proposals.

A. Licensing of the Reserve Spectrum

9. In the *Narrowband PCS R&O/Further Notice*, the Commission tentatively concluded that the one megahertz of spectrum that it had reserved in the *PCS First Report and Order* should be channelized and licensed. The Commission believed that licensing this spectrum would serve the public interest by facilitating competition, opening the market to new entrants, and allowing existing narrowband PCS licensees to expand their systems through access to additional spectrum.¹⁴

10. Despite opposition found in the earlier record, the Commission tentatively concluded, in the *Narrowband PCS Second R&O/Second Further Notice*, that it was in the public interest to proceed with licensing the one megahertz of narrowband PCS spectrum that has been held in reserve.¹⁵ The Commission believed that the unencumbered spectrum should be made available to those interested in

¹³ Personal Communications Industry Association (PCIA) and Paging Systems Management filed petitions for reconsideration. PCIA, Space Data Corporation (Space Data), WebLink Wireless, Inc. (WebLink) and Verizon Wireless Messaging Services, LLC (Verizon) filed comments and replies. FreeSpace Communications, LLC (FreeSpace) and Motorola, Inc. (Motorola) filed only comments.

¹⁴ *Narrowband PCS R&O/Further Notice*, 12 FCC Rcd at 12991, ¶ 34. In 1993, the Commission allocated three megahertz of spectrum for narrowband PCS. Only two megahertz of this spectrum was divided into specific channels and made available for licensing, however, because the Commission determined that service proposals for narrowband PCS did not require use of the entire narrowband PCS allocation at that time. *PCS First Report and Order*, 8 FCC Rcd at 7165, ¶ 19.

¹⁵ At the time, most commenters opposed the channelization and licensing of the reserve spectrum, stating that narrowband PCS was still in the developmental stages and that in 1997, it was still unclear how the spectrum would be needed.

bringing new and innovative services to the public, and that the Commission should not limit service options by limiting the spectrum available.¹⁶ In that order, the Commission also tentatively concluded that licenses for the reserve spectrum should be auctioned along with licenses for all of the other remaining narrowband PCS spectrum.¹⁷

11. All commenters now support licensing the reserve spectrum. We agree that licensing the reserve spectrum will help narrowband PCS licensees remain competitive with other CMRS providers and will also help promote new and innovative services and the opening of the market to new entrants.¹⁸ Consequently, we will proceed with the licensing of the reserve spectrum.

B. Band Plan for the Reserve Spectrum and Other Remaining Unauctioned Spectrum

12. In the *Narrowband PCS Second R&O/Second Further Notice*, the Commission sought comment on how to channelize the reserve spectrum and whether to rechannelize the narrowband PCS spectrum that had been channelized previously but not yet licensed. The Commission was primarily concerned with whether to create larger spectrum blocks for potential bidders and service providers. We received comments from a variety of service providers, large and small. The views of the overwhelming majority of commenters on this issue are represented by the PCIA band plan and WebLink's proposed modification of the PCIA band plan.¹⁹

1. Channel Size

13. PCIA proposes a "consensus" band plan that channelizes the reserve spectrum, and rechannelizes the other remaining spectrum for which licenses have not been auctioned.²⁰ This available spectrum includes nine frequencies currently available for assignment on an MTA basis (two 50 kHz/50 kHz paired channels, five 50 kHz/12.5 kHz paired channels, and two 50 kHz unpaired channels), paging response channels to be licensed on an MTA basis (eight 12.5 kHz unpaired channels), the spectrum of five regional licenses that were auctioned but subsequently cancelled (Channel 13, a 50 kHz/50 kHz paired channel), the spectrum of one nationwide license that was auctioned but subsequently cancelled (a 50 kHz unpaired channel), and the one megahertz of reserve spectrum that the Commission had proposed to divide into three channels (two 300 kHz unpaired channels and one 400 kHz unpaired channel.) Specifically, PCIA urges the Commission to rechannelize the remaining spectrum for which licenses have not been auctioned into larger blocks that could be aggregated or disaggregated to suit the carrier's needs.²¹ Its band plan, which proposes a 50 kHz bandwidth as the standard building block,

¹⁶ *Narrowband PCS Second R&O/Second Further Notice* at 10491, ¶ 82.

¹⁷ *Id.*

¹⁸ See PCIA Comments at 2-3, FreeSpace Comments at 3-5, Space Data Comments at 1.

¹⁹ The proposal of FreeSpace for the Commission to license the reserve spectrum as a single 1 MHz block or, in the alternative, two 500 kHz blocks is not a viable option in light of the configuration of the spectrum at issue. The aggregate 1 MHz of reserve spectrum is found in three non-contiguous blocks - a single block of 400 kHz and two blocks of 300 kHz.

²⁰ PCIA describes its plan as a "consensus" band plan that "may not be the unanimous choice of all industry members" but is "certainly the overwhelming preference and drew the most favorable response . . . among industry representatives." PCIA Comments at 4. We received no opposition to PCIA bandplan proposal with regard to the issue of channel size.

²¹ PCIA Comments at 4-6.

accommodates ReFLEX, a new protocol created by Motorola to enable two-way paging and messaging.²² The PCIA band plan proposes MTA-based licenses for one 12.5 kHz unpaired channel and one 50 kHz/50 kHz paired channel. It proposes nationwide or regional licenses for six 50 kHz unpaired channels, five 100 kHz unpaired channels, one 100 kHz/50 kHz paired channel, and four 150 kHz/50 kHz paired channels.²³

14. PCIA asserts that its band plan provides incumbent licensees and potential market entrants—both small and large businesses alike—with maximum flexibility to construct optimal licensed areas.²⁴ Further, PCIA states that for those entities that require paired spectrum, there are several paired licenses of varying sizes.²⁵ PCIA argues that there are a number of unpaired licenses that can be accumulated by auction participants who might desire unpaired spectrum and that the unpaired spectrum can also be aggregated during an auction to permit pairing by those applicants who desire such pairing.²⁶ PCIA argues that the use of channel blocks larger than 50 kHz would limit participation by smaller players that cannot rely on large spectrum holders to partition or disaggregate their spectrum. Companies that require larger blocks of spectrum may aggregate 50 kHz blocks to suit their needs.²⁷ PCIA claims that its proposed band plan would allow for a single auction of licenses for the reserve and other remaining spectrum but that this might not be true of a different plan.²⁸

15. We agree with PCIA that its channelization plan will serve the public interest in that new market entrants and existing licensees may utilize the additional spectrum offered in the most efficient manner possible. PCIA's proposed bandplan is consistent with our original bandplan in that both plans rely on a 50 kHz bandwidth as the standard building block. PCIA's consensus proposal, however, includes wider bandwidth channels of 100 kHz up to 300 kHz compared with the current rules that vary from 12.5 kHz up to 100 kHz. Most commenters support the PCIA band plan or some variation and there is no significant industry dispute regarding the channel size and pairings aspects of the PCIA band plan. We agree with PCIA and Motorola that the band plan using the 50 kHz REFLEX technology represents a reasonable compromise between large and small carriers because (a) the channel size is consistent with base station and end user equipment already in use today; (b) it takes advantage of the current large installed base of equipment and infrastructure; (c) it allows incumbents to utilize existing advanced messaging technologies or develop new ones; and (d) it allows new entrants and/or small businesses who don't have research and development capital or market share/power to quickly get a competitive system up and running. We conclude that the PCIA channelization plan represents a reasonable compromise among its industry members that optimizes existing technology and telecommunications infrastructure to enhance the competitiveness and efficiency of current narrowband PCS communications.

²² *Id.* at 4. By adding a response channel to a traditional paging system, Motorola claims on its website that ReFLEX allows carriers to provide two-way messaging within a competitive cost, using existing telecommunications infrastructure. Motorola Comments at 2.

²³ PCIA Comments at 4-6.

²⁴ *Id.* at 5.

²⁵ *Id.*

²⁶ *Id.*

²⁷ *Id.* at 5-6.

²⁸ *Id.* at 6.

2. Service Area Size

16. In the *Narrowband PCS Second R&O/Second Further Notice*, the Commission eliminated Basic Trading Areas (BTAs) as a geographic licensing unit for narrowband PCS.²⁹ The Commission found BTAs to be too small to provide viable narrowband service. Instead, the Commission adopted MTAs as the appropriate service area size for future licensing of narrowband PCS.³⁰ The Commission concluded that narrowband PCS could be licensed using MTAs without compromising the goal of ensuring entry for small businesses.³¹

17. PCIA urges the Commission to reconsider its decision to license all remaining spectrum on the basis of MTAs.³² PCIA proposes that the Commission license the majority of the remaining spectrum on a nationwide basis, with the rest licensed based upon regional and MTA service areas.³³ Although PCIA supported MTA-based licensing in its comments filed in 1997, it now contends that the paging/messaging market has matured and changed such that the ability to provide coast-to-coast coverage is of paramount importance to many, if not most, licensees. PCIA argues that licensing of all remaining spectrum on an MTA basis will impede the ability of narrowband PCS licensees to compete with other CMRS providers, further that the marketplace demands that wireless Internet/data providers be capable of providing nationwide service, and that nationwide licenses would reduce the cost of auction participation and would minimize interference coordination requirements.³⁴

18. WebLink opposes this aspect of PCIA's petition, arguing that the Commission should license the remaining spectrum on an MTA basis.³⁵ WebLink claims that MTA-based licensing is superior to nationwide and regional licensing because it can promote viable, competitive narrowband PCS businesses by serving the needs of a wide range of carriers.³⁶ WebLink also claims that it and other carriers have relied on the future availability of licenses based on small, manageable geographic areas, and that granting the PCIA petition would thus cause great harm to such carriers.³⁷ According to WebLink, on the issue of service areas, the PCIA band plan does not represent the consensus of the paging industry and "merely represents the views of the larger paging companies and conglomerates that voted for the plan."³⁸ WebLink argues that the current Commission proposal to implement an MTA-based licensing scheme will promote viable, competitive narrowband PCS businesses by serving the

²⁹ *Narrowband PCS Second R&O/Second Further Notice* at 10458, ¶ 2.

³⁰ *Narrowband PCS Second R&O/Second Further Notice* at 10462, ¶ 10.

³¹ *Id.*

³² PCIA Petition at 2.

³³ *Id.* at 2.

³⁴ PCIA Comments at 7-9.

³⁵ WebLink Opposition at 5.

³⁶ *Id.* at 5-6.

³⁷ *Id.* at 11-12.

³⁸ WebLink Comments at 2-3. Although PCIA did not include a detailed accounting of the vote that determined the exact nature of the "consensus" plan, we received comments from WebLink stating that it voted against the band plan and we received comments from Verizon endorsing the PCIA band plan.

needs of both large and smaller carriers.³⁹ WebLink also requests that, if the Commission decides to create additional regional or nationwide licenses, it do so by using a small portion of the one megahertz of reserve narrowband PCS spectrum, instead of revisiting its MTA licensing decision in the *Narrowband PCS Second R&O/Second Further Notice*.⁴⁰

19. Our primary concern in this proceeding is to establish a channel band plan that is likely to attract a wide variety of service providers to narrowband PCS spectrum so as to lead to the rapid provision of services to the public. In the *Narrowband PCS Second R&O/Second Further Notice*, the Commission noted that the record, at that time, contained little support for, and considerable opposition to, the establishment of additional nationwide licenses.⁴¹ Consequently, the Commission concluded that MTA-based service areas, coupled with the ability to aggregate licenses, would offer licensees substantial flexibility to provide wide-area local service as well as service on a larger scale.⁴² It is clear from the PCIA petition, the WebLink opposition, and the related comments filed by PCIA and others that now, at least some form of nationwide or regional licensing is desirable or, at least, tolerable to all parties, even apparently to WebLink. Although the Commission's initial rationale for replacing BTAs with the larger MTAs is still valid (*i.e.*, that MTAs represent a basic geographic building block that can serve the needs of small and large carriers alike, especially coupled with the ability to aggregate licenses),⁴³ we are persuaded by the comments of PCIA that some level of licensing is warranted that includes service areas larger than MTAs.

20. Further, we note the benefits to the public of nationwide licenses. Consumers of wireless services depend upon the portability of their services and many expect continuous coverage, regardless of where they travel across the country. Narrowband PCS providers currently face competition from nationwide, broadband wireless carriers who are providing seamless, nationwide service including short messaging. It appears possible that many narrowband PCS licensees will require similar geographic coverage and scope in order to be competitive in the wireless marketplace. The question presented to the Commission, therefore concerns the proper balance of nationwide, regional, and MTA licensing in the reserve and other remaining spectrum. PCIA and a majority of its members believe that more nationwide licenses are desirable. WebLink and possibly other smaller carriers believe more MTA licenses are necessary. We resolve this issue by determining what combination of national, regional, and MTA licenses will ensure the rapid provision of services to the public without compromising the goal of ensuring entry for small businesses.

3. Revised Band Plan

21. After careful consideration of all pleadings in this proceeding, we have developed a new channel band plan for the narrowband PCS reserve spectrum and the other remaining spectrum. The new

³⁹ WebLink Opposition at 5-8.

⁴⁰ *Id.* at 12-13. WebLink Reply Comments at 9-10. Finally, WebLink argues that the Commission should not permit PCIA to supplement the PCIA petition using the PCIA comments or band plan. Although we consider PCIA's petition to be complete, we acknowledge the fact that the issues raised in the PCIA Comments are related to those filed in its petition. To the extent that is necessary, we will consider PCIA's comments to our Second Further Notice of Proposed Rulemaking in this docket to be informal comments in relation to PCIA's petition.

⁴¹ *Narrowband PCS Second R&O/Second Further Notice* at 10463, ¶ 12.

⁴² *Narrowband PCS Second R&O/Second Further Notice* at 10462, ¶ 10.

⁴³ No commenter argued for the re-institution of BTAs.

channel band plan includes elements of the PCIA band plan, with its emphasis on nationwide licensing, and WebLink's proposed modification, with its emphasis on MTA licensing. We conclude that this revised plan strikes a proper balance between competing interests in a manner that will promote competition and stimulate development of new and innovative narrowband services. We will channelize the remaining narrowband PCS spectrum and will auction licenses as described in the table below and the chart in Appendix C. This 1.8625 megahertz of spectrum includes: the 1 megahertz of reserve spectrum, 712.5 kilohertz of previously channelized spectrum, 100 kilohertz from the cancellation of five regional licenses,⁴⁴ and 50 kilohertz from the cancellation of a nationwide license.⁴⁵

Channel Number	Channel Description	Frequency Band	Total Spectrum
Nationwide Channels			
18	One 100 kHz unpaired channel	940.65 – 940.75 MHz	100 kHz
19-20	Two 50 kHz/50 kHz paired channels	901.3 – 901.35, 930.5 – 930.55 MHz 901.9 – 901.95, 930.75 – 930.8 MHz	200 kHz
21-22	Two 50 kHz/150 kHz paired channels	901.5 – 901.55, 930 – 930.15 MHz 901.6 – 901.65, 930.15 – 930.3 MHz	400 kHz
23-25	Three 50 kHz/100 kHz paired channels	901.45 – 901.5, 940.55 – 940.65 MHz 901.55 – 901.6, 940.3 – 940.4 MHz 901.85 – 901.9, 940.45 – 940.55 MHz	450 kHz
Nationwide Subtotal			1,150 kHz
MTA CHANNELS			
26-27	Two 50 kHz unpaired channels	901.35 – 901.4 MHz 901.4 – 901.45 MHz	100 kHz
28	One 50 kHz unpaired channel	940.4 – 940.45 MHz	50 kHz
29	One 50 kHz/50 kHz paired channel	901.95 – 902.0, 930.8 – 930.85 MHz	100 kHz
30	One 50 kHz/100 kHz paired channel	901.65 – 901.7, 930.3 – 930.4 MHz	150 kHz
31	One 50 kHz/150 kHz paired channel	901.7 – 901.75, 930.85 – 931 MHz	200 kHz
32	One 12.5 kHz/100 kHz paired channel	901.8375 – 901.85, 940.9 – 941 MHz	112.5 kHz
MTA Subtotal			712.5 kHz
Grand Total			1,862.5 kHz

22. We have decided not to create additional regional narrowband PCS licenses because of

⁴⁴ On March 29, 2000, stations KNKV213 (Channel 13 Region 1), KNKV219 (Channel 13 Region 2), KNKV225 (Channel 13 Region 3), KNKV231 (Channel 13 Region 4), and KNKV237 (Channel 13 Region 5) held by CONXUS Spectrum, Inc., cancelled pursuant to 47 C.F.R. §1.2110(f)(4)(iii)-(iv).

⁴⁵ On December 16, 1998, Destineer Corp. cancelled its authorization for station KNKV200. See application file number 0000003519. The cancelled Destineer license included authorization for 940.75-940.80 MHz (50 kHz unpaired channel). On May 28, 1999 Skytel Communications, Inc., was granted a waiver of Section 24.129 of the Commission's Rules in order to modify the authorized frequencies for station KNKV208 from 901.775-901.7875 MHz and 930.5-930.55 MHz to 901.775-901.7875 MHz and 940.75-940.80 MHz. See Order, DA 99-1034, May 28, 1999. In effect, this waiver permitted Skytel to swap the upper half of its paired channel (930.5-930.55 MHz) with the spectrum returned to the Commission by Destineer. Thus, the 930.5-930.55 MHz band is now available for auction.

the demonstrated demand for nationwide and MTA licenses. PCIA's plan is composed of mostly nationwide licenses, and as we described above, WebLink has emphasized the importance of providing a sufficient amount of spectrum to be licensed on an MTA basis. Further, in reviewing the results of the first auction of narrowband PCS regional licenses, we find that four entities purchased groups of co-channel regional licenses, effectively creating four additional nationwide licenses. These aggregated licenses comprised two-thirds of the available regional licenses. In fact, only two of the thirty available regional licenses were purchased as single licenses. By licensing the remaining narrowband PCS spectrum on a nationwide and MTA basis, we respond to the industry's demonstrated demand for nationwide licenses and MTA licenses. Furthermore, we provide the flexibility for licensees to aggregate MTA licenses to create regional or national service areas with boundaries of their choosing, as dictated by market forces and consumer demand, rather than set by the Commission.

23. We find our new channel band plan strikes a balance for the narrowband PCS band as a whole (*i.e.*, including channels we've already licensed). Through this approach we achieve parity between the spectrum in MTA licenses and the spectrum in regional licenses (*i.e.*, approximately equal) and we create twice as many nationwide licenses. This should result in an approximate distribution of narrowband PCS spectrum of 66% nationwide, 17% regional, and 17% MTA. With respect to the number of licenses issued, the revised channel band plan will yield 18 nationwide (5%), 25 regional (6%), and 357 MTA (89%) licenses. We believe that the revised channel plan represents an appropriate compromise for all narrowband PCS carriers, large and small, and fairly balances their interests by offering a range of bidding opportunities that allow them to pursue local, regional, or nationwide strategies.

C. Eligibility Restrictions

24. In 1993, in order to provide an opportunity for incumbent paging licensees to upgrade their operations, the Commission set aside 100 kHz (8 unpaired 12.5 kHz frequencies) of the 3 MHz allocated for narrowband PCS to be used for paging response channels, *i.e.*, channels used in paired communications with existing one-way paging frequencies to provide mobile-to-base station communications.⁴⁶ The Commission's intent in establishing these channels was to provide a means for one-way (single frequency) paging licensees to obtain a second frequency for the purpose of delivering signals back from their customers' mobile devices.⁴⁷ Prior to the *Narrowband PCS Second R&O/Second Further Notice*, the Commission's rules limited eligibility for acquiring narrowband PCS response channels to existing paging licensees, *i.e.*, those licensed to operate conventional one-way paging base stations under Part 22 or Part 90.⁴⁸

25. In the *Narrowband PCS Second R&O/Second Further Notice*, the Commission lifted all eligibility restrictions on applying for paging response channels, finding that the rules unnecessarily excluded other potential users of the response channels.⁴⁹ The Commission concluded that lifting the eligibility restrictions would encourage entry of new narrowband PCS providers by providing greater flexibility to new licensees to use the channels in conjunction with other spectrum to provide new

⁴⁶ *Narrowband PCS Second R&O/Second Further Notice*, 15 FCC Rcd at 10466, ¶ 19 citing, PCS First Report and Order, 8 FCC Rcd at 7165, ¶ 20.

⁴⁷ *Id.*

⁴⁸ *Id.*

⁴⁹ *Id.* at ¶ 20.

services.⁵⁰

26. PSMI urges the Commission to reconsider its decision and reinstate the paging eligibility restriction for the eight 12.5 kHz paging response channels. PSMI argues that the Commission's action to eliminate the paging eligibility restriction is contrary to the public interest because: 1) elimination of the paging response channel set-aside creates an impermissible retroactive effect, 2) lifting the restriction exceeded the Commission's statutory authority, and 3) the public interest would be served by retention of the eligibility restriction.⁵¹

27. We decline to reinstate the eligibility restrictions that originally applied to the paging response channels. The narrowband PCS industry has changed dramatically since the Commission set aside these channels for the exclusive use of the paging carriers. Other narrowband PCS entities and even broadband carriers have expressed interest in using the response channels to provide new and innovative services for their own customers and for traditional paging customers as well. The Commission disagrees with PSMI's assertion that retaining the restriction represents a retroactive effect precluding paging carriers from ever using the response channels. There is no retroactive effect in the Commission eliminating the eligibility restrictions because it has not prevented PSMI or any such similarly situated carrier from acquiring the response channels to expand their one-way systems. Nor has the Commission affected the status of any pending application to use those response channels. The Commission is entitled to change its eligibility criteria in rulemaking proceedings as long as we provide an adequate explanation for the change.⁵² With regard to PSMI's statutory authority and public interest claims, we conclude the Commission acted well within its statutory authority when it lifted the restrictions because it did so to increase competition for the response channels, not to enrich the Federal treasury, as is alleged by PSMI. PSMI incorrectly concludes that the Commission's sole motivation to award licenses is to maximize revenue to the Federal treasury. On the contrary, the removal of the eligibility restrictions will increase competition for the response channels and thereby increase the likelihood that licenses for these channels will be awarded to those, including paging licensees, that value them most highly and consequently may provide service to the public most rapidly. Further, lifting the eligibility restrictions will encourage entry of new narrowband PCS providers by providing greater flexibility to licensees to use these channels, either on a stand-alone basis or in conjunction with other spectrum, to provide new services.⁵³

IV. CONCLUSION

28. The action we take today resolves the remaining issues in preparation for a narrowband PCS spectrum auction. We believe that the new channel band plan we adopt today represents a proper balance of the interests and concerns of industry, both large and small carriers, and will provide the public with the greatest variety of service choices at competitive rates.

⁵⁰ *Id.*

⁵¹ PSMI Petition at 2-8.

⁵² In the Matter of Amendment of Part 22 of the Commission's Rules to provide for filing and processing of applications for unserved areas in the Cellular Service and to modify other cellular rules, CC Docket No. 90-6, In the Matter of Amendment of the Commission's Rules for Rural Cellular Service, CC Docket No. 85-388, In re Cellular Applications for Unserved Areas in MSAs/NECMAs, *First Report and Order and Memorandum Opinion and Order on Reconsideration*, 6 FCC Rcd 6185, 6193, ¶ 12 (1991), citing *United States v. Storer Broadcasting*, 351 U.S. 192 (1956).

⁵³ *Narrowband PCS Second R&O/Second Further Notice* at 10466-10467, ¶ 20.

V. PROCEDURAL MATTERS

29. A Final Regulatory Flexibility analysis, pursuant to the Regulatory Flexibility Act, 5 U.S.C. § 604, is contained in Appendix B.

VI. ORDERING CLAUSES

30. Authority for issuance of this Third Report and Order and Order on Reconsideration is contained in Sections 4(i), 257, 303(r), and 309(j) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 257, 303(r), and 309(j).

31. Accordingly, IT IS ORDERED that Part 24 of the Commission's Rules IS AMENDED as specified in Appendix A, effective 60 days after publication in the Federal Register. Information collections contained in these rules will be effective upon OMB approval.

32. IT IS FURTHER ORDERED that the Commission's Consumer Information Bureau, Reference Information Center, SHALL SEND a copy of this Third Report and Order and Order on Reconsideration, including the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION



Magalie Roman Salas
Secretary

APPENDIX A – FINAL RULES

Part 24 of Chapter 1 of Title 47 of the Code of Federal Regulations is amended as follows:

1. The authority citation for Part 24 continues to read as follows:

Authority: 47 U.S.C. 154, 301, 302, 303, 309 and 332.

2. Section 24.129 is revised to read as follows:

§ 24.129 Frequencies.

The following frequencies are available for narrowband PCS.

(a) Eighteen frequencies are available for assignment on a nationwide basis as follows:

(1) Seven 50 kHz channels paired with 50 kHz channels:

Channel 1: 940.00-940.05 and 901.00-901.05 MHz;
Channel 2: 940.05-940.10 and 901.05-901.10 MHz;
Channel 3: 940.10-940.15 and 901.10-901.15 MHz;
Channel 4: 940.15-940.20 and 901.15-901.20 MHz;
Channel 5: 940.20-940.25 and 901.20-901.25 MHz;
Channel 19: 930.50-930.55 and 901.30-901.35 MHz; and,
Channel 20: 930.75-930.80 and 901.90-901.95 MHz.

(2) Three 50 kHz channels paired with 12.5 kHz channels:

Channel 6: 930.40-930.45 and 901.7500-901.7625 MHz;
Channel 7: 930.45-930.50 and 901.7625-901.7750 MHz; and,
Channel 8: 940.75-940.80 and 901.7750-901.7875 MHz;

(3) Two 50 kHz unpaired channels:

Channel 9: RESERVED;
Channel 10: 940.80-940.85 MHz; and,
Channel 11: 940.85-940.90 MHz.

(4) One 100 kHz unpaired channel:

Channel 18: 940.65-940.75 MHz.

(5) Two 150 kHz channels paired with 50 kHz channels:

Channel 21: 930.00-930.15 and 901.50-901.55 MHz; and,
Channel 22: 930.15-930.30 and 901.60-901.65 MHz.

(6) Three 100 kHz channels paired with 50 kHz channels:

Channel 23: 940.55-940.65 and 901.45-901.50 MHz;
Channel 24: 940.30-940.40 and 901.55-901.60 MHz; and,
Channel 25: 940.45-940.55 and 901.85-901.90 MHz.

(b) Five frequencies are available for assignment on a regional basis as follows:

(1) One 50 kHz channel paired with 50 kHz channel:

Channel 12: 940.25-940.30 and 901.25-901.30 MHz.

Channel 13: RESERVED.

(2) Four 50 kHz channels paired with 12.5 kHz channels:

Channel 14: 930.55-930.60 and 901.7875-901.8000 MHz;

Channel 15: 930.60-930.65 and 901.8000-901.8125 MHz;

Channel 16: 930.65-930.70 and 901.8125-901.8250 MHz; and,

Channel 17: 930.70-930.75 and 901.8250-901.8375 MHz.

(c) Seven frequencies are available for assignment on an MTA basis as follows:

(1) Three 50 kHz unpaired channels:

Channel 26: 901.35-901.40 MHz;

Channel 27: 901.40-901.45 MHz; and,

Channel 28: 940.40-940.45 MHz.

(2) One 50 kHz channel paired with 50 kHz channel:

Channel 29: 930.80-930.85 and 901.95-902.00 MHz.

(3) One 100 kHz channel paired with 50 kHz channel:

Channel 30: 930.30-930.40 and 901.65-901.70 MHz.

(4) One 150 kHz channel paired with 50 kHz channel:

Channel 31: 930.85-931.00 and 901.7-901.75 MHz.

(5) One 100 kHz channel paired with 12.5 kHz channel:

Channel 32: 940.90-941 and 901.8375-901.85 MHz.

NOTE 1: Operations in markets or portions of markets which border other countries, such as Canada and Mexico, will be subject to on-going coordination arrangements with neighboring countries.

3. Section 24.130 is removed and reserved.

§ 24.130 [Removed and Reserved]

APPENDIX B**FINAL REGULATORY FLEXIBILITY ANALYSIS
(Third Report and Order)**

As required by the Regulatory Flexibility Act (RFA),⁵⁴ an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in Appendix D of the *Narrowband PCS Second R&O/Second Further Notice* in this proceeding.⁵⁵ The Commission sought written public comment on the proposals in the *Second Further Notice*, including comment on the IRFA. As described below, no commenter raised an issue concerning the IRFA. The Commission's Final Regulatory Flexibility Analysis (FRFA) in this Third Report and Order conforms to the RFA.⁵⁶

I. Need for and Purpose of this Action:

This Third Report and Order amends the Commission's rules for narrowband PCS frequencies. The amendments adopted promote efficient licensing of narrowband PCS and enhance the service's competitive potential in the Commercial Mobile Radio Service marketplace. The Third Report and Order also channelizes the reserve narrowband PCS spectrum and re-channelizes the other remaining unauctioned spectrum, thus offering more spectrum to incumbent and new market entrants so that they may provide new and innovative services.

II. Summary of Significant of Issues Raised by Public Comments in Response to the IRFA:

No party filed comments responding to the IRFA.

III. Description and Estimate of the Number of Small Entities to Which the Rules Will Apply:

Under the RFA, small entities may include small organizations, small businesses, and small governmental jurisdictions, or entities. 5 U.S.C. § 601(6). The RFA directs agencies to provide a description of and, where feasible, an estimate of the number of small entities that may be affected by the proposed rules, if adopted. The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction." 5 U.S.C. § 601(3). In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act. A small business concern is one that: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any

⁵⁴ 5 U.S.C. § 603. Congress amended the RFA, *id* § 601 *et seq.*, by the Contract with America Advancement Act of 1996, Pub. L. No. 104-121, 110 Stat. 847 (1996) (CWAAA). Title II of the CWAAA is the Small Business Regulatory Enforcement Fairness Act of 1996.

⁵⁵ Amendment of the Commission's Rules to Establish New Personal Communications Services, Narrowband PCS, GEN Docket No. 90-314, ET Docket No. 92-100, Implementation of Section 309(j) of the Communications Act - Competitive Bidding, Narrowband PCS, PP Docket No. 93-253, *Second Report and Order and Second Further Notice of Proposed Rulemaking*, 15 FCC Rcd 10456 (2000) (*Narrowband PCS Second R&O/Second Further Notice*).

⁵⁶ See 5 U.S.C. § 604.

additional criteria established by the Small Business Administration (SBA).⁵⁷ Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies “unless an agency after consultation with the Office of Advocacy of the SBA, and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register.”

The rules adopted in the Third Report and Order will affect small businesses that hold or seek to acquire narrowband Personal Communications Services (PCS) licenses. These entities include small businesses that obtain nationwide, regional or Major Trading Areas (MTA) geographic area licenses through auction, assignment, or transfer and small businesses that acquire partitioned and/or disaggregated MTA, regional, or nationwide geographic area licenses.

In the future, the Commission will auction 1.8625 megahertz of spectrum which includes the 1 megahertz of reserve spectrum, 712.5 kilohertz of previously channelized (but unauctioned) spectrum, 100 kilohertz from the cancellation of five regional licenses, and 50 kilohertz from the cancellation of a nationwide license.

The new channel band plan strikes a balance for the narrowband PCS band as a whole (*i.e.*, including channels the Commission has already auctioned). Through this approach the Commission will achieve parity between the spectrum in MTA licenses and the spectrum in regional licenses (*i.e.*, approximately equal) and will create twice as many nationwide licenses. This should result in an approximate distribution of narrowband PCS spectrum of 66% nationwide, 17% regional, and 17% MTA. With respect to the number of licenses issued, the revised channel band plan will yield 18 nationwide (5%), 25 regional (6%), and 357 MTA (89%) licenses.

To ensure meaningful participation of small business entities in the auctions, the Commission adopted a two-tiered definition of small businesses in the *Narrowband PCS Second R&O/Second Further Notice*.⁵⁸ A small business is an entity that, together with affiliates and controlling interests, has average gross revenues for the three preceding years of not more than \$40 million. A very small business is an entity that, together with affiliates and controlling interests, has average gross revenues for the three preceding years of not more than \$15 million. The SBA has approved these definitions.

The Commission cannot predict accurately the number of licenses that will be awarded to small entities in future auctions. However, 4 of the 16 winning bidders in the two previous narrowband PCS auctions were small businesses, as that term was defined under the Commission's rules. The Commission assumes, for purposes of the evaluations and conclusions in this FRFA, that a large portion of the remaining narrowband PCS licenses will be awarded to small entities. The Commission also assumes that at least some small businesses will acquire narrowband PCS licenses by means of the Commission's partitioning and disaggregation rules.

⁵⁷ 5 U.S.C. § 632.

⁵⁸ Amendment of the Commission's Rules to Establish New Personal Communications Services, Narrowband PCS, GEN Docket No. 90-314, ET Docket No. 92-100, Implementation of Section 309(j) of the Communications Act - Competitive Bidding, Narrowband PCS, PP Docket No. 93-253, *Second Report and Order and Second Further Notice of Proposed Rulemaking*, 15 FCC Rcd 10456 (2000) (*Narrowband PCS Second R&O/Second Further Notice*).

IV. Summary of Projected Reporting, Recordkeeping, and Other Compliance Requirements:

The rules adopted in the Third Report and Order impose no additional reporting and recordkeeping requirements on large or small businesses.

V. Steps Taken to Minimize Significant Economic Impact on Small Entities, and Significant Alternatives Considered:

The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives: (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities.⁵⁹

The rules adopted in this Third Report and Order are designed to implement Congress' goal of giving small businesses, as well as other entities, the opportunity to participate in the provision of spectrum-based services. The rules are also consistent with the Communications Act's mandate to identify and eliminate market entry barriers for entrepreneurs and small businesses in the provision and ownership of telecommunications services. *See generally* 47 U.S.C. §§ 257, 309(j).

The Commission finds that establishing a reasonable balance of MTA and nationwide licensing will serve the needs of a wide range of entities, including both large and small service providers. The commenting parties support this conclusion. The Commission finds that consumers of wireless services depend upon the portability of their services and expect continuous coverage, regardless of where they travel across the country. Narrowband PCS providers currently compete with nationwide, broadband wireless carriers who are providing seamless, nationwide service. The Commission concludes that all narrowband PCS licensees, especially small entities, must have similar geographic coverage and scope in order to be competitive in the wireless marketplace.

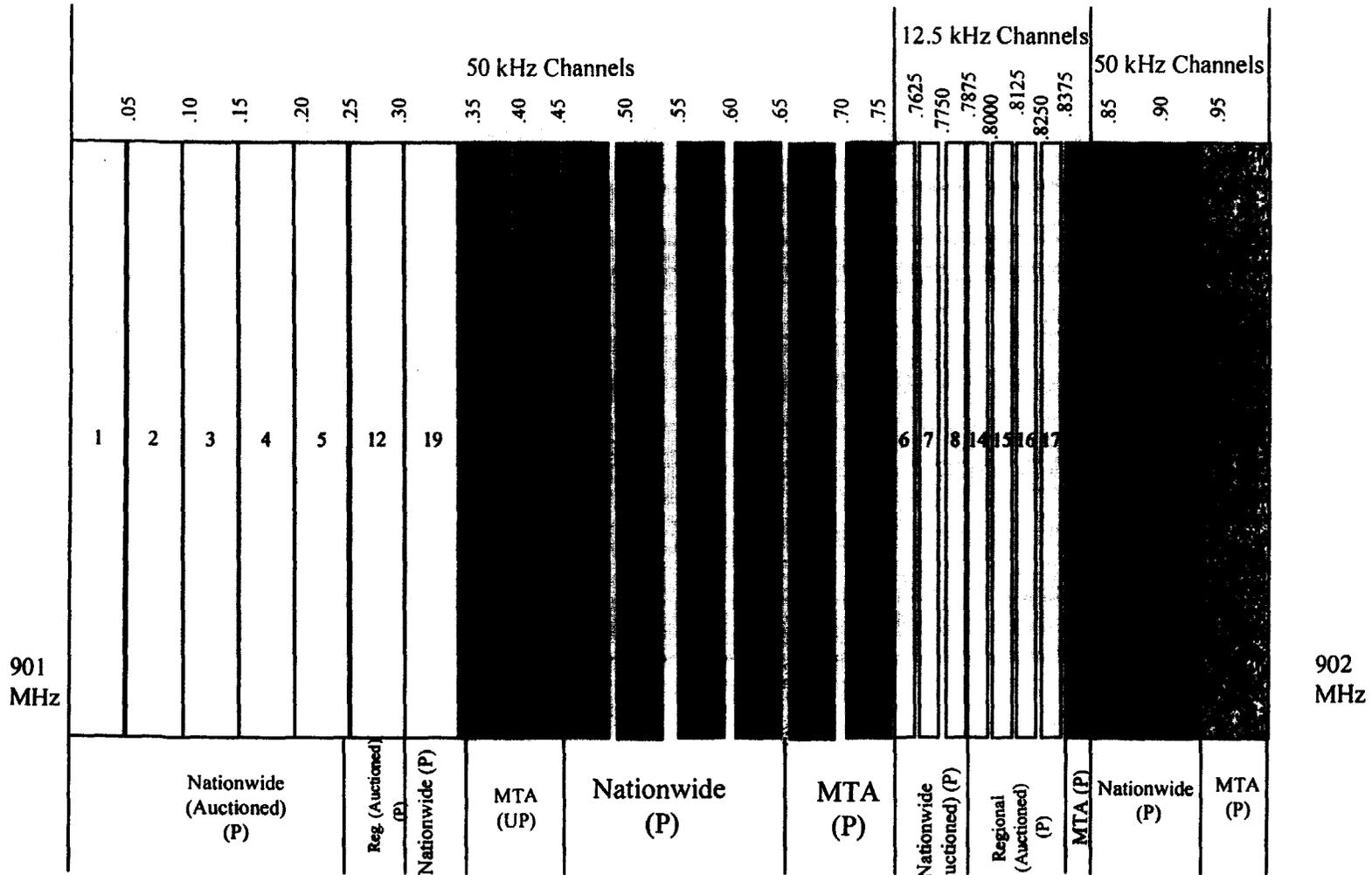
The Commission considered and adopted a compromise proposal between PCIA and WebLink. PCIA and a majority of its members believe that more nationwide licenses are desirable. WebLink and possibly other smaller carriers believe more MTA licenses are necessary. The question presented to the Commission, therefore concerns the proper balance of nationwide, regional, and MTA licensing in the reserve and remaining unauctioned spectrum. The Commission resolves the issue by determining a proper combination of national, regional, and MTA licenses overall that will ensure the rapid provision of services to the public without compromising the goal of ensuring entry for small businesses.

Report to Congress: The Commission will send a copy of this *Third Report and Order and Order on Reconsideration*, including this FRFA, in a report to be sent to Congress pursuant to the Small Business Regulatory Enforcement Fairness Act of 1996, *see* 5 U.S.C. § 801(a)(1)(A). In addition, the Commission will send a copy of this *Third Report and Order and Order on Reconsideration*, including FRFA, to the Chief Counsel for Advocacy of the Small Business Administration. A copy of the *Third Report and*

⁵⁹ 5 U.S.C. § 603.

Order and Order on Reconsideration and FRFA (or summaries thereof) will also be published in the Federal Register. See 5 U.S.C. § 604(b).

APPENDIX C NARROWBAND PCS CHANNELS IN THE 901-902 MHz BAND FCC Proposal



Spectrum Already Auctioned
 Unchanneled Spectrum
 Spectrum Proposed For Auction
 N/A in Los Angeles

(P) = Paired Channels (UP) = Unpaired Channels

