

ORIGINAL

BEFORE THE  
**Federal Communications Commission**

WASHINGTON, D.C. 20554

ORIGINAL  
FILE /

In the matter of  
  
**Amendment of the  
Commission's Rules to  
Establish New Personal  
Communications Services**

GEN Docket No. 90-314  
ET Docket No. 92-100  
  
RM-7140, RM-7175, RM-7617,  
RM-7618, RM-7760, RM-7782,  
RM-7860, RM-7977, RM-7978  
RM-7979, RM-7980

To: The Commission

REPLY COMMENTS OF PACTEL PAGING

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## SUMMARY

PacTel Paging ("PacTel") is submitting reply comments regarding the narrowband PCS allocation under consideration in ET Docket No. 92-100.

The PacTel reply contains a comprehensive review of the many comments that have been filed regarding the narrowband allocation. This analysis reveals an emerging consensus on many key aspects of the narrowband allocation. Overwhelming support exists for devoting the three 1 MHz blocks of spectrum in the 900 MHz band to narrowband PCS uses. The commenting parties generally favor a flexible channel plan which includes a variety of bandwidths, with some channels available on an unpaired basis, some available on a symmetrically paired basis, and some available on an asymmetrically paired basis.

The proposal of PacTel and Telocator to subdivide the country into 5 geographic regions has been endorsed by many knowledgeable industry participants as the appropriate service territory plan for narrowband PCS.

The record supports broad eligibility criteria for narrowband PCS licenses, and the use of lottery selection techniques to select licensees provided that strict anti-speculation measures are adopted. In this regard, many of the filed comments generally support the use of a creative filing fee schedule and forfeiture bonds in order to deter speculation, as was proposed by PacTel.

With regard to the issues of channel bandwidth and service territories, PacTel remains resolute in its conviction that the Commission will be making a serious mistake if it grants too much bandwidth (i.e., greater than 100 kHz) to a single licensee or gives any selectee a nationwide grant.

Ultimately, the task before the Commission is to adopt a narrowband PCS licensing scheme that strikes an appropriate balance between various channel width and geographic service area proposals in order to craft an allocation plan that will create meaningful licensing opportunities for qualified applicants to provide diverse and innovative services. The comprehensive PacTel narrowband PCS proposal meets these criteria, and should be given careful consideration by the Commission.

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To: The Commission

**REPLY COMMENTS OF PACTEL PAGING**

PacTel Paging ("PacTel"), by its attorneys, hereby submits its Reply Comments in the above-captioned proceeding.<sup>1/</sup> As is the case with the extensive comments on the Notice of Proposed Rulemaking (the "Notice") PacTel filed on November 9, 1992 (the "PacTel Comments"), this filing addresses only issues respecting the narrowband PCS services to be provided in the 900

<sup>1/</sup> On September 14, 1992, PacTel filed a petition seeking reconsideration of the Commission's "Tentative Decision" to deny PacTel a preference in ET Docket No. 92-100 notwithstanding PacTel's pioneering work in the development of Advanced Architecture Paging ("AAP"), a form of narrowband PCS service. See PP-38. The PacTel reconsideration request is unopposed. Based upon this fact, PacTel is not further addressing the pioneer's preference issues in this pleading. PacTel does request that the Commission proceed promptly to grant PacTel's unopposed reconsideration request, so that it can continue its experimental work on AAP with the knowledge that the company will receive the licensing preference it deserves.

MHz allocation under consideration in ET Docket No. 92-100 of the consolidated proceeding.<sup>2/</sup>

**I. THE NARROWBAND PCS COMMENTS  
REFLECT AN EMERGING CONSENSUS ON  
MANY KEY ASPECTS OF THE ALLOCATION**

1. Comments specifically addressing the narrowband PCS allocation were submitted by a broad cross-section of entities.<sup>3/</sup> Commenters include many paging companies,<sup>4/</sup> industry

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<sup>2/</sup> PacTel's parent company, Pacific Telesis Group, will be filing separate reply comments addressing the wideband PCS aspects of the proceeding which are at issue in GEN Docket No. 90-314.

<sup>3/</sup> See, e.g., Comments of American Paging, Inc. ("API Comments"), Comments of the American Petroleum Institute ("Petroleum Comments"), Comments of Arch Communications Group, Inc. ("Arch Comments"), Narrowband PCS Pioneer's Preference Comments of BellSouth ("BellSouth Comments"), Comments of Corporate Technology Partners to the Notice of Proposed Rule Making and Tentative Decision ("CTP Comments"), Comments of Dial Page, Inc. ("Dial Page Comments"), Comments of Dr. Charles I. Berlin ("Berlin Comments"), Comments of the Ericsson Corporation in Response to the FCC's Notice of Proposed Rule Making and Tentative Decision ("Ericsson Comments"), Comments of Florida Cellular RSA Limited Partnership ("Florida Cellular Comments"), Comments on Notice of Proposed Rulemaking by Freeman Engineering Associates, Inc. ("Freeman Comments"), Comments on Tentative Decision for 900 MHz Narrowband PCS Pioneer's Preferences by Global Enhanced Messaging Venture ("GEM Comments"), Comments of Grand Broadcasting Corporation ("Grand Comments"), Comments of In-Flight Phone Corporation ("In-Flight Comments"), Comments of Kleiner Perkins Caufield & Byers ("Kleiner Comments"), Comments of Matsushita Communications Industrial Corporation of America, ("Matsushita Comments"), Comments of Metriplex, Inc. ("Metriplex Comments"), Comments of Metrocall of Delaware, Inc. A Privately Held Radio Common Carrier ("Metrocall  
(continued...)

associations,<sup>3/</sup> cellular carriers,<sup>6/</sup> equipment manufacturers,<sup>7/</sup> a

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<sup>3/</sup>(...continued)

Comments"), Comments of Mobile Telecommunication Technologies Corporation ("MTEL Comments"), Comments of Motorola Inc. ("Motorola Comments"), Comments of National Association of Business and Educational Radio, Inc. ("NABER Comments"), Comments of PacTel Paging on the Notice of Proposed Rulemaking ("PacTel Comments"), Comments of NYNEX Corporation ("NYNEX Comments"), Comments of PageMart, Inc. on Notice of Proposed Rulemaking ("PageMart Comments"), Comments of Paging Network, Inc. ("PageNet Comments"), Comments of the Southern New England Telecommunications Corporation ("SNET Comments"), Comments of Southwestern Bell Corporation ("SWB Comments"), Comments of Telocator on 900 MHz Personal Communications Services ("Telocator Comments"), Comments of TIA MCD by the Mobile Communications Division of the Telecommunications Industry Association ("TIA Comments"), Comments of the Chief Counsel for Advocacy of the United States Small Business Administration on the Notice of Proposed Rulemaking ("SBA Comments") and Comments of the Utilities Telecommunications Council ("UTC Comments"). Collectively, the foregoing will be referred to as the "Commenting Parties".

<sup>4/</sup> Paging company commenters include American Paging, Inc., Arch Communications Group, Inc., BellSouth, Dial Page, Inc., Metrocall of Delaware, Inc., Mobile Telecommunication Technologies Corporation, PacTel Paging, PageMart, Inc., Paging Network, Inc. and Southwestern Bell Corporation. The substantial interest expressed by current providers of paging services in the narrowband PCS allocation confirms the point made by PacTel in its initial comments that the paging industry provides a useful model for narrowband PCS. See PacTel Comments, Section II.

<sup>5/</sup> The American Petroleum Institute, National Association of Business and Educational Radio, Inc., Telecommunications Industry Association, Telocator, United States Telephone Association and the Utilities Telecommunications Council all submitted 900 MHz narrowband PCS comments.

<sup>6/</sup> BellSouth, Florida Cellular RSA Limited Partnership, Metrocall of Delaware, Inc., NYNEX Corporation and Southwestern Bell Corporation are all cellular providers who filed comments specifically addressing narrowband PCS issues.

broadcasting company,<sup>8/</sup> a communications engineering firm,<sup>9/</sup> a communications venture capital firm,<sup>10/</sup> a governmental agency<sup>11/</sup> and a variety of proponents of new technologies.<sup>12/</sup> Despite the diversity in the Commenting Parties, a clear consensus on many key aspects of the 900 MHz allocation emerges from the comments when they are viewed as a whole. The Commission should give particular attention to these consensus positions in light of the depth and breadth of experience of the many commenters from which the common positions arise.

**A. Devoting Three 1 MHz Blocks  
of Spectrum to Narrowband  
PCS Uses is Justified**

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2. The Notice proposed to allocate 3 MHz of spectrum in the 900 MHz band for narrowband PCS services: 901-902 MHz, 930-931 MHz and 940-941 MHz. This aspect of the Notice received overwhelming support from the Commenting Parties. With only

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<sup>7/</sup> (...continued)

<sup>7/</sup> Ericsson Corporation, Matsushita Communications Industrial Corporation of America and Motorola Inc. are all equipment manufacturers who submitted narrowband comments.

<sup>8/</sup> See Grand Comments.

<sup>9/</sup> See Freeman Comments.

<sup>10/</sup> See Kleiner Comments.

<sup>11/</sup> See SBA Comments.

<sup>12/</sup> See e.g., Comments of Dr. Charles I. Berlin, Corporate Technology Partners, Global Enhanced Messaging Venture, In-Flight Phone Corporation and Metriplex, Inc.

isolated exceptions,<sup>13/</sup> the Commenting Parties resoundingly affirm the public interest benefits of a narrowband PCS allocation, and substantial needs for narrowband services that justify the proposed 3 MHz allocation. See, e.g., API Comments at p. 2, Arch Comments at p. 4, Motorola Comments at p. 15, Ericsson Comments at p. 26. In fact, viewed as a whole, the narrowband PCS comments suggest that the 3 MHz allocation is conservative. Both Arch and PacTel reference in their comments the explosive growth of one-way messaging services that has taken place over the last decade<sup>14/</sup> and indicate they expect this growth to continue or accelerate.<sup>15/</sup> Motorola notes that the "explosive growth of palm, laptop and portable computers is estimated at 50% annually. At the same time, recent growth in

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<sup>13/</sup> The American Petroleum Institute, the national trade association representing companies involved in the oil and gas industries, opposes the narrowband allocation and requests that 901-902 MHz and 940-941 MHz be reserved for emergency response communications for industrial/land transportation eligibles. No other commenting party supports this proposal. Utilities Telecommunications Council, while generally supporting the concept of narrowband PCS, asks that 1 MHz of spectrum be reserved for non-commercial internal use by traditional private radio eligibles. UTC Comments at p. 30. Grand Broadcasting asks that some or all of the subject 900 MHz spectrum be allocated to interactive broadcast radio services. Grand Comments at pp. 1-2. These few negative parochial comments do not challenge the substantial need for narrowband PCS services that is demonstrated overwhelmingly by the other Commenting Parties.

<sup>14/</sup> PacTel Comments at pp. 15-16, Arch Comments at pp. 4-5.

<sup>15/</sup> In fact, many industry commenters see the cumulative growth rate continuing at a rate of 10 to 15 percent per annum. See PacTel Comments p. 16.

the electronic mail (E-mail) market exceeded 40%, with forecasted growth rates of 35% to continue for the next 5 years". Motorola Comments at p. 16. Motorola predicts that these trends will converge, producing an ever-increasing need for portable devices capable of receiving E-mail communications by radio.<sup>16/</sup>

Similarly, PageNet submits that "the 3 MHz of spectrum allocated to narrowband paging services will not satisfy consumer demand". PageNet Comments at p. 22. PageNet notes that narrowband PCS encompasses a diversity of services, many of which are enjoying an exponential increase in demand which will continue in the coming decade and beyond. PageNet predicts that the proposed allocation will prove inadequate to meet projected needs in the largest metropolitan areas by the mid-1990s.<sup>17/</sup>

3. Based upon the foregoing, the Commission should proceed with the allocation of the three 1 MHz blocks of spectrum with confidence that there is a substantial unsatisfied demand and need for narrowband services that can be provided over these channels, and a host of qualified parties interested in initiating services in this band.

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<sup>16/</sup> In an earlier round of comments, Motorola projected a need for in excess of 250 channels of communication to meet the one-way demands in the year 2000 in New York City. See Motorola Comments to Telocator Petition for Rulemaking in RM-7617, filed March 11, 1991.

<sup>17/</sup> See also MTEL Comments at Attachment 1 (Arthur D. Little, Inc. Demand Assessment for Nationwide Wireless Network Services).

**B. A Handful of Broad  
Geographic Regions Should be  
Designated for Narrowband PCS Services**

4. The Notice did not differentiate between wideband and narrowband PCS services in soliciting comments on the appropriate size of the geographic areas to be accorded to each licensee. After first seeking comment on the appropriateness of according a licensee a nationwide service territory, the next smallest number of regions proposed for comment was the 47 Major Trading Areas. Notice at pp. 25-26. In what must be considered by the Commission a significant development, the narrowband PCS comments provide an enormous amount of support for devoting some if not all of the narrowband PCS spectrum to a geographic licensing scheme which subdivides the country into from 3 to 5 regions. See, e.g., API Comments at p. 5, Arch Comments at p. 7, Dial Page Comments at p. 4, Motorola Comments at p. 22, PageNet Comments at p. 9, n.7, Telocator Comments at pp. 12-13, Freeman Comments at para. 13.<sup>18/</sup> Considering that the Notice did not specifically seek comment on the possibility of dividing the country into from 3 to 5 narrowband PCS regions, the breadth of

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<sup>18/</sup> The comments contained virtually no support for licensing on a localized basis, although some contained offhand references to a mixture of local, regional and nationwide channels. See, e.g., Freeman Comments at p. 9. Even parties who did not specifically endorse the 3- to 5-region concept expressed support for larger rather than smaller narrowband PCS licensing territories. See, e.g., SWB Comments at pp. 5-6 (proposing 9 or 10 regions), SBA Comments at pp. 19-21 (proposing 47 Major Trading Areas), UTC Comments at p. 33 (supporting 47 Major Trading Areas).

support for this particular geographic allocation is extraordinary. Notably, PacTel and Telocator submitted and endorsed identical regional plans based upon 5 natural service territories that have evolved in the paging business. PacTel Comments, Attachment 1; Telocator Comments, Attachment 1. A duplicate copy of this plan is included as Attachment 1 of this reply. Significantly, this 5-region plan has been specifically endorsed by several knowledgeable industry members.<sup>19/</sup> Consequently, it deserves the Commission's serious attention.

**C. Broad Eligibility for  
Narrowband PCS Licenses is Appropriate**

5. The Notice did not draw distinctions between narrowband and wideband PCS services in seeking comment on who should be eligible to hold licenses. While there is a great difference of opinion on eligibility issues in comments filed on the wideband allocation, the narrowband comments are much more unified. The Commenting Parties offer a broad consensus that the Commission should not place restrictions on the eligibility of existing messaging service providers, cellular carriers, local exchange carriers or others which would preclude them from participating in the development of the narrowband PCS spectrum. See, e.g., UTC Comments at p. 33, Freeman Comments at p. 11,

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<sup>19/</sup> See, e.g., API Comments at p. 5; Dial Page Comments at p. 7; Freeman Comments at pp. 8-9.

Florida Cellular Comments at pp. 10-12, PageNet Comments at p. 23, PacTel Comments at p. 28, MTEL Comments at p. 10. The consensus is perhaps best summed up in the comments of Telocator, which properly note that "open entry will further the Commission's goals of speed of deployment, diversity of service and competitive delivery of PCS". Telocator Comments at p. 10.<sup>20/</sup>

**D. The Comments Support  
an Asymmetrical Channel Plan that  
Will Accommodate Diverse Services**

6. Not surprisingly, the comments contain a variety of proposed channel plans for the 3 MHz of narrowband PCS spectrum. While no single plan enjoys unanimous support, there are sufficient similarities between many of the proposals for some consensus positions to be ascertained.

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<sup>20/</sup> Arch Communications does not believe that cellular carriers, who will be able to provide narrowband PCS services pursuant to the flexible use rules, should be eligible for narrowband PCS spectrum. Nor does Arch believe that applicants should be able to apply for both wideband PCS and narrowband PCS spectrum, since it anticipates that the wideband PCS rules will be sufficiently flexible to permit licensees there to subdivide the spectrum into narrowband channels. See Arch Comments at p. 9. Metrocall urges that cellular carriers not be eligible for PCS licenses in markets in which they have cellular operations. Metrocall Comments at p. 11. Metrocall also opposes permitting telephone companies to hold PCS licenses in markets where they operate wireline facilities. Id. at p. 26. PacTel does not agree with these proposed restrictions. No such restrictions exist in the current paging business, which exhibits robust competition.

7. On the whole, the comments provide substantial support for the adoption of an asymmetrical channel plan which includes a variety of bandwidths, some to be available on an unpaired basis, some to be available on a symmetrically paired basis, and some to be available on an asymmetrically paired basis.<sup>21/</sup> There also is a substantial technical consensus that the 901-902 MHz band should be reserved for low-power mobile-to-base return link communications. See, e.g., Dial Page Comments at p. 7, Freeman Comments at p. 11, Metriplex Comments at p. 12, NABER Comments at p. 8, PageMart Comments at p. 7, Telocator Comments at p. 18. Since the possibility of reserving 901-902 MHz for low-powered talkback communications was not specifically discussed in the Commission's Notice, the amount of support that appears in the comments for this particular designation is remarkable. The Commission should give considerable weight to this spontaneous industry consensus.

8. PacTel has made a specific channel plan proposal that is deserving of careful consideration because it meets all the consensus criteria. See PacTel Comments, Attachment 2. The PacTel Narrowband PCS Channel Plan, a duplicate copy of which is included as Attachment 2 of this reply, subdivides the 3 MHz spectrum into channel widths ranging from 20 kHz to 100 kHz.

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<sup>21/</sup> An asymmetrical pairing would include a base transmit channel of 1 bandwidth, and a paired return link channel of a more narrow bandwidth. For example, Dial Page, Inc., Motorola Inc., PacTel Paging, PageMart, Inc., Paging Network, Inc., and Telocator all proposed asymmetrical channel plans.

Some channels are devoted primarily to mobile-to-base transmission, while others are reserved for higher powered base-to-mobile communications. The plan is flexible, and allows channels to be unpaired, symmetrically paired or asymmetrically paired.

**E. The Commission Should Use Lotteries  
to Select Narrowband PCS Licensees Provided  
That Adequate Anti-Speculation Measures are Taken**

9. With only isolated exceptions,<sup>22/</sup> the Commenting Parties endorse the use of lotteries to select narrowband PCS licensees. See, e.g., API Comments at p. 6, Arch Comments at pp. 10-11, Dial Page Comments at p. 7, Metrocall Comments at pp. 14-17, PacTel Comments at p. 52, PageMart Comments at p. 11, Telocator Comments at p. 14, Florida Cellular Comments at pp. 12-

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<sup>22/</sup> PageNet supports the use of auctions to allocate narrowband PCS spectrum. However, the company provides no specific auction proposal to resolve the many difficult issues which pertain when auctions are held involving a variety of different bands, bandwidths, frequency pairing arrangements, and, perhaps, geographic service areas. Nor does PageNet specify the type of auction it prefers (e.g., dutch auction, reverse dutch auction, sealed bid, etc.). The public interest implications are different for each method. In addition, the Commission does not have auction authority, so its proposed use may unnecessarily delay the introduction of service. As its second preference, PageNet discusses the possible use of lotteries which, in PacTel's view, is the better course. PageNet Comments at pp. 19-20. MTEL proposes the use of a streamlined comparative hearing procedure to select narrowband PCS applicants. MTEL Comments at pp 10-11. While PacTel does not oppose this approach, it does not believe the Commission has the personnel resources necessary nor the inclination to return to comparative hearing processes.

13, Freeman Comments at p. 10, SBA Comments at p. 24, and UTC Comments at p. 35. However, without exception, those favoring random selection techniques recognize the serious potential for speculative abuses, and overwhelmingly support the adoption by the Commission of strict anti-speculation devices. These comments reflect a universal belief that there will be rampant speculation if the Commission fails to take adequate steps to weed out insincere applicants at the initial application stage. Among the mechanisms that enjoy considerable support are: (i) the adoption of strict financial requirements,<sup>23/</sup> substantial filing fees,<sup>24/</sup> detailed technical showings,<sup>25/</sup> requirements for unique engineering<sup>26/</sup> and strict construction deadlines.<sup>27/</sup> As noted in the PacTel Comments, however, these familiar methods of curbing lottery abuses are merely the beginning. Where the Commission

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<sup>23/</sup> See, e.g., API Comments at p. 7, NABER Comments at p. 9, PacTel Comments at p. 36, Telocator Comments at p. 14.

<sup>24/</sup> See, e.g., API Comments at p. 7, Arch Comments at p. 12, Dial Page Comments at p. 8, Florida Cellular Comments at p. 13, In-Flight Comments at p. 3, NABER Comments at p. 9, PacTel Comments at pp. 46-47.

<sup>25/</sup> See, e.g., Arch Comments at p. 11, PacTel Comments at pp. 35-38, UTC Comments at pp. 35-36.

<sup>26/</sup> See, e.g., PacTel Comments at pp. 36-37, MTEL Comments at p. 11. PacTel specifically supports the MTEL proposal that narrowband PCS applications include an engineering certification that the engineering proposal was independently prepared for a single applicant's use and not shared with other applicants.

<sup>27/</sup> See, e.g., API Comments at pp. 8-9, Freeman Comments at p. 7, In-Flight Comments at pp. 3-4, Metrocall Comments at p. 15, NABER Comments at p. 9, Telocator Comments at p. 14.

has tried using these methods alone, it has not had great success. The best way for the Commission to address the universally recognized problem of speculation is to adopt the bold and innovative fee structure and forfeiture bond proposals suggested by PacTel. See PacTel Comments, Section III; see also discussion infra at Section II.D.

**F. The Commission Must Expedite  
the Narrowband PCS Allocation**

10. Another common theme that emerges from the narrowband PCS comments is the need for the Commission to finalize this allocation without delay so that narrowband PCS can be deployed immediately in the United States. See, e.g., API Comments at p. 2, Dial Page Comments at pp. 4-5, MTEL Comments at pp. 2-5. As noted by Motorola:

Other countries are moving ahead rapidly to develop narrowband PCS services and the traditional position of the U.S. as a leader could be lost.

Motorola Comments at p. 16.

11. One possible mechanism for expediting the narrowband PCS allocation would be to sever the narrowband proceeding from the wideband proceeding.<sup>28/</sup> The possibility of

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<sup>28/</sup> The rationale for severance is that the narrowband PCS proceeding involves reserve spectrum and, consequently, does not raise the difficult issues of spectrum clearing and frequency coordination that are involved in the wideband PCS allocation.

severing the 900 MHz allocation for early consideration was specifically alluded to by the Commission in the Notice as a possibility. Not surprisingly, this prospect enjoyed considerable support from commenting parties whose principal interest is in the narrowband PCS allocation. See, e.g., PacTel Comments at p. 26, PageNet Comments at p. 2 n.2.<sup>29/</sup>

12. The consistent expressions of the need for expedition in the narrowband PCS allocation is indicative of the level of industry enthusiasm for proceeding to implement advanced communications systems in this band, and should be viewed by the Commission as a hearty endorsement of the narrowband PCS allocation.

**II. MANY KEY COMPONENTS OF  
PACTEL'S NARROWBAND PCS PROPOSAL  
FIND SUPPORT IN THE COMMENTS OF OTHERS**

13. In commenting on the narrowband PCS allocation, PacTel sought to construct a comprehensive regulatory approach that would resolve many competing considerations in a manner that would promote diverse services and create meaningful licensing

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<sup>29/</sup> Arch expresses concern in its comments that the severance and early availability of the narrowband PCS spectrum will cause it to become a target of speculators. PacTel understands this concern, but believes the best approach is for the Commission to adopt stringent anti-speculation mechanisms, such as those recommended by PacTel in its comments, rather than continuing to maintain the narrowband PCS allocation in a consolidated proceeding with the wideband allocation if the consolidation gives rise to delay.

opportunities for existing carriers and newcomers alike. PacTel notes, in reviewing the wealth of other comments that have been filed, that several key components of its proposal find support in comments submitted by other parties.

**A. The Maximum Channel  
Bandwidth Granted to a Single  
Licensee Should be 100 kHz**

14. The Notice sought comment on the proper channelization plan for the 900 MHz narrowband PCS spectrum, and indicated that the Commission was considering bandwidths ranging from 50 kHz to 500 kHz. Notice, p. 22. In considering this aspect of the Notice, PacTel concluded that the Commission would be making a serious mistake if it granted channels in excess of 100 kHz of bandwidth. PacTel was concerned that grants in excess of 100 kHz would have a serious preclusionary effect on the opportunities for operators with a *bona fide* intention of pursuing narrowband PCS services to secure licenses. See PacTel Comments at p. 31 and n.47.

15. In reviewing the comments made by others, PacTel notes that there is considerable support for channelization plans that focus upon smaller rather than larger bandwidths. See, e.g., Arch Comments at p. 6 (100 kHz), Dial Page Comments at p. 6 (50 kHz), Matsushita Comments at p. 6 (50 kHz), MTEL Comments at p. 8 (50 kHz), PacTel Comments at p. 21 (100 kHz), SWB Comments at p. 5 (25 or 50 kHz), Ericsson Comments at p. 26 (50 kHz). In

most instances, the reasoning is the same. These parties generally favor a narrowband PCS channelization plan that will create significant licensing opportunities and will foster competition in the marketplace.<sup>30/</sup>

16. PacTel's preference for a channel plan that subdivides the narrowband spectrum into smaller channel blocks in order to increase licensing opportunities and competition finds ample support in the working paper of the Office of Plans and Policy released November 10, 1992, entitled Putting It All Together: The Cost Structure of Personal Communications Services ("OPP Working Paper").<sup>31/</sup> This study resoundingly affirms that "the policy objective of extending the benefits of competition is still best served by having more licenses..." and notes:

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<sup>30/</sup> Motorola and Freeman both recommend maximum channel bandwidths of 150 kHz. Only 2 of the Commenting Parties recommended greater than 150 kHz: PageMart (200 kHz) and PageNet (250 kHz). These latter 2 proposals, which are outside of the mainstream of the proposals, appear to reflect these parties' continuing efforts to buttress their earlier filed pioneer's preference requests which were based upon system architectures requiring spectrum of this magnitude. While the Commission may wish to allow applicants such as PageNet and PageMart to aggregate spectrum up to 200 or 250 kHz in order to implement a frequency reuse plan, it should not gear its entire allocation scheme to allocations of this size. The system architectures proposed by PageNet and PageMart simply do not enjoy sufficient industry support for the Commission to be able to justify the preclusive effect of gearing its entire channelization plan to spectrum blocks of this size.

<sup>31/</sup> The cost analyses in the OPP Working Paper are geared toward the wideband PCS allocation. However, some of the key principles underlying the OPP analysis apply with equal force to the narrowband allocation.

First, it is far better for several licenses to be issued, and only one or two new systems constructed, than for only one or two licenses to be authorized and economic forces never given the chance to determine the appropriate number of competitors. Second, the threat of competitive entry by the other licensees will serve as a market check upon the prices, service quality, and service options offered by PCS providers. Third, if PCS is defined broadly as suggested above, then licensees will still have the flexibility and incentives for innovation to find a niche market for wireless services and otherwise use the spectrum in productive fashion. Fourth, a smaller number of licenses (which implies a larger license size) could increase the acquisition costs beyond the reach of smaller firms, even though the additional spectrum may not be essential to deliver service.

OPP Working Paper, p. 52. Applying these considerations to narrowband PCS, the Commission should favor a plan that adopts smaller channel bandwidths and makes many licenses available.<sup>32/</sup>

17. The Commission must take note that there is little support in the industry for the PageNet and PageMart narrowband PCS frequency reuse proposals which require large (i.e., 200 kHz or more) blocks of spectrum. If the 900 MHz allocation is geared to these proposals, the Commission runs a series of competitive risks. One possibility is that serious potential participants will eschew the narrowband PCS allocation because it is ill-suited to their service proposals. If this happens, the service will not develop on a fully competitive basis. More likely though, applicants would still file for the large channel blocks

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<sup>32/</sup> The same reasoning argues against nationwide licenses. See discussion, infra at Section II.B.

when in fact their legitimate service needs could be satisfied with a much smaller amount of spectrum. This represents an inefficient allocation, particularly since these licensees could have a competitive incentive to "warehouse" the unneeded spectrum rather than assign it to potential competitors.

**B. The Commission Should  
Not Adopt Nationwide Licenses**

18. The initial PacTel Comments concluded that it would be a mistake for the Commission to allocate some or all of the narrowband PCS spectrum on a nationwide basis.<sup>33/</sup> PacTel was seriously concerned about the preclusive effect of geographic areas of this size, and noted that the current marketplace showed only a limited demand for truly nationwide service. PacTel Comments at p. 31. Again, PacTel's position in this regard is echoed in the comments of certain other parties. See, e.g., Dial Page Comments at pp. 7-8, Florida Cellular Comments at p. 7. Arch, in its comments, properly describes the substantial need for regional messaging services, and expresses the justified concern that "a mixture of nationwide and smaller geographic areas would serve to give the nationwide carrier an inherent

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<sup>33/</sup> Several of the Commenting Parties do support a nationwide service region for narrowband PCS. PacTel notes that many of these commenters also are seeking a nationwide pioneer's preference. See, e.g., Preference Requests of PageMart (PP-40), PageNet (PP-84), Metriplex (PP-81), MTEL (PP-37) and Echo Group (PP-36).

competitive benefit, thereby interfering with fair competition". Arch Comments at p. 8. Arch also notes that it would be relatively easy for carriers to reach intercarrier agreements that would enable them to aggregate service territories for nationwide service provided the Commission adopts a relatively small number of large geographic regions. Id. at p. 9.

19. Notably, one of the strongest proponents of nationwide service areas, PageNet, acknowledges in its comments that the possibility of aggregating smaller territories into a fully nationwide service increases proportionately as the number of regions decreases. Specifically, PageNet concedes that the transaction costs to the carrier in aggregating service territories to create a nationwide service "decrease on a continuum as the geographic scope [of the initial license area] increases". PageNet Comments at p. 15. In view of this proper recognition, the appropriate approach for the Commission to take is to balance the desire to foster diversity and a large number of carriers with the possibility that a nationwide service will develop by adopting large enough regions (i.e., 5) to provide carriers with a meaningful opportunity to aggregate areas as they deem necessary.<sup>34/</sup>

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<sup>34/</sup> PacTel notes that PageNet supports the use of auctions in assigning narrowband PCS spectrum. If PageNet is willing to pay for its spectrum pursuant to a government auction procedure, it places no undue burden on it to aggregate service territories by acquiring spectrum as necessary in the private market.

**C. Narrowband PCS Should be  
Regulated as a Common Carrier Service**

20. The Notice sought comment on whether narrowband PCS should be considered a common carrier or private carrier service, or whether licensees should be allowed to elect between the two. Notice at pp. 37-39. PacTel favors common carrier status, but noted that the distinction would be largely academic if the Commission took appropriate steps to preempt state regulation of wide-area, multiple state narrowband PCS systems which, otherwise, could be subjected to a patchwork of inconsistent state requirements. PacTel Comments, Section V.

21. Although a number of the Commenting Parties have supported the concept of allowing licensees to themselves elect whether to be considered common carriers or private carriers,<sup>35/</sup> there has been a recent development which reiterates PacTel's preference for common carrier status. Certain comments make it clear that the option of private carrier status is very attractive to some potential licensees in order to avoid state regulation.<sup>36/</sup> See, e.g., PageNet Comments at p. 26. PacTel believes that the Commission should avoid the approach of

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<sup>35/</sup> See, e.g., API Comments at p. 6, MTEL Comments at pp. 5-6, PageNet Comments at p. 26, Telocator Comments at p. 15, Florida Cellular Comments at pp. 13-14, NABER Comments at pp. 3-5.

<sup>36/</sup> Of course, the same result, in a less problematic fashion, can be achieved by granting large geographic licenses and preempting state regulation.

skirting state regulatory requirements by allowing narrowband PCS providers to define themselves as "private" carriers. In American Telephone and Telegraph Co. v. FCC, Civil No. 92-1053 (U.S. App. D.C.; November 13, 1992), the Court of Appeals sternly chastised the Commission for seeking to avoid its regulatory obligations respecting common carriers by clever definitional and procedural ploys. PacTel is concerned that defining PCS services as private services in order to avoid the regulatory implications of common carrier status could be viewed by the Court of Appeals as a similarly impermissible subterfuge and could allow the whole licensing and allocation process to be tied up in litigation for years.

22. Again, PacTel is sensitive to the concerns of and supports those who seek to achieve the benefits of private carrier status in their efforts to initiate wide-area services, particularly the avoidance of burdensome state regulatory schemes that are not well suited to interstate services. As it has in the past, the Commission should exercise its prerogative to preempt these state regulations as applied to *bona fide* interstate narrowband PCS services. See cases cited at Notice, n.71. This is a more straightforward approach to the problem.