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FCC 94-201

Before the

FEDERAL COMMUNICATIONS COMMISSION

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Washington, DC 20554

DISPATCHED BY

In the Matter of	)	
	)	
Revision of Part 22 of the Commission's Rules Governing the Public Mobile Services	)	CC Docket No. 92-115
	)	
Amendment of Part 22 of the Commission's Rules to Delete Section 22.119 and Permit the Concurrent Use of Transmitters in Common Carrier and Non-common Carrier Service	)	CC Docket No. 94-46 RM 8367
	)	
Amendment of Part 22 of the Commission's Rules Pertaining to Power Limits for Paging Stations Operating in the 931 MHz Band in the Public Land Mobile Service	)	CC Docket No. 93-116

Report and Order

Adopted: August 2, 1994; **Released:** September 9, 1994

By the Commission:

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INTRODUCTION

1. By this Report and Order, we revise in its entirety Part 22 of our Rules, which governs the Public Mobile Services .[1] The new Part 22 is considerably shorter than the existing Part 22 that it replaces, and we believe that Public Mobile Services applicants and licensees will find it better organized and easier to understand and use. In our proposal to rewrite Part 22, we identified rule and policy changes that could eliminate outdated and unnecessary information collection requirements, expedite authorization of service, and promote efficient use of the electromagnetic spectrum. We adopt many of these changes herein. These revisions serve the public interest by streamlining and improving the Commission's licensing procedures in ways that will benefit the providers and ultimately the users of mobile services. These changes will further our goals of stimulating economic growth and expanding access to mobile radio networks and services.

BACKGROUND

2. In the Notice of Proposed Rulemaking (Notice)[2], we proposed a comprehensive review and revision of Part 22 of the Rules. We indicated that a revision and update of Part 22 was needed for the following reasons: (1) to ensure that the various rules adopted in individual proceedings since the last major overhaul of Part 22 (in 1983) are consistent with our overall policies; (2) to change some of our Part 22 rules that have become obsolete and unnecessary;[3] (3) to update some of the technical specifications in Part 22 because substantial changes in technology have rendered them outdated or unnecessary; and (4) because stating Part 22 heights and distances in rounded metric units in accordance with the Metric Conversion Act of 1976 could result in small but substantive changes that require public consideration in a notice and comment rulemaking proceeding.[4]

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1 The Public Mobile Services include the following services: Public Land Mobile Service, Rural Radio Service, Domestic Public Cellular Radio Telecommunications Service, Offshore Radio Telecommunications Service, and the 800 MHz Air-Ground Radiotelephone Service.

2 Revision of Part 22 of the Commission's Rules Governing the Public Mobile Services, CC Docket No. 92-115, Notice of Proposed Rule Making, 7 FCC Rcd 3658 (1992).

3 For example, in the cellular radio service, almost all of the 306 Metropolitan Statistical Areas (MSAs) and New England County Metropolitan Areas for the New England States (NECMAs) and most of the 428 Rural Service Areas (RSAs) have been licensed to provide service. This near completion of our initial cellular licensing process has rendered many of our initial cellular licensing rules obsolete.

4 In Metric Conversion of the Commission's Rules, 8 FCC Rcd 3720 (1993), the Commission completed the conversion of most of its Rules, including Part 22, to the metric system of measurement.

3. Numerous parties (listed in Appendix D) filed comments[5] and replies in response to the Notice. Generally, the parties support the Commission's efforts to revise Part 22, and they either agree with the proposed rules or offer alternative proposals.[6] As explained in more detail infra, some of the rules we are adopting have been modified from those proposed in order to address concerns of the parties or to better serve the public interest. Also, we found that additional notice and comment were desirable with respect to some of the proposals made in the comments. On May 20, 1994, we released a Further Notice of Proposed Rule Making, (Further Notice) seeking comments on those matters.[7] In addition, we have consolidated into this proceeding the rule making proceedings in CC Dockets No. 94-46 and 93-116 which have proposed certain technical amendments to Part 22.

4. In the Notice, we proposed changes to almost every rule in Part 22. We address our action with respect to these changes to each rule section in the attached Appendix A. Although we dispose of most matters with only a brief mention, our decisions are based on careful consideration of the comments and arguments in the record. We also proposed in the Notice significant changes to our procedures for authorization of service and in the way we regulate the Public Mobile Services. In addition, several of our other proposals attracted significant comment. We address these major issues in greater detail below.

MAJOR ISSUES

Application Processing Procedures

5. **Proposals.** Traditionally, to select from among mutually exclusive applicants for initial or modified facilities in the Public Mobile Services, we have used random selection. Under this procedure, if the selected application satisfies the requirements of our Rules, it is

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5 Comments were originally due on August 21, 1992. On August 7, 1992, Telocator and Cellular Telecommunications Industry Association (CTIA) requested an extension of time to file comments. The parties explained that the comprehensive scope and complexity of the Commission's proposed action made advisable an open Joint Industry Forum (Forum) on Part 22. On August 13, 1992, the Common Carrier Bureau extended the deadline for filing comments to October 5, 1992. See Order, 7 FCC Rcd 5319 (Com. Car. Bur. 1992). The Forum was held on September 18, 1992.

6 We have analyzed all of the arguments contained in the comments before resolving this rulemaking proceeding. Not all of the points raised in the comments, however, are discussed in this Order for reasons of brevity.

7 Revision of Part 22 of the Commission's Rules Governing the Public Mobile Services, CC Docket No. 92-115, Further Notice of Proposed Rulemaking, 9 FCC Rcd 2596 (1994).

granted and the other applications are dismissed.[8] In the Notice we proposed to process applications in the Public Mobile Services using a "first-come, first-served" procedure.[9] Under the proposal, the first-filed application would be granted unless other mutually exclusive applications were filed on the same day. Later-filed mutually exclusive applications would be dismissed. If two or more of the mutually exclusive applications were filed on the same day, we would conduct a random selection process. We noted that if we adopted this procedure, we would eliminate the 60 -day filing period currently allowed for the filing of competitive applications[10] and might avoid most lottery situations. We felt that the first-come, first-served procedure would also expedite the processing of applications, and discourage applicants from filing applications simply to delay action on a competitor's applications.

6. After the Notice was released, Congress added a new Section 309(j) to the Communications Act of 1934, as amended, which authorizes the Commission to employ competitive bidding procedures to choose from among two or more mutually exclusive applications for initial licenses.[11] On March 8, 1994, we implemented this authority by adopting rules to use auctions to choose from among two or more mutually exclusive initial applications in numerous radio services, including most of the Public Mobile Services, in the Second Report and Order in PP Docket No. 93-253 (Second Report).[12] Nevertheless, in the Second Report, we determined that we would not conduct auctions to resolve mutual exclusivity between initial Basic Exchange Telephone Radio Service (BETRS) or rural radio applications and common

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8 Pursuant to old § 22.33(c) of the Rules, a licensee applying for expansion of an existing system may request that its application and those that are mutually exclusive with it be designated for a comparative hearing.

9 The Notice indicated that the "first-come, first-served" procedure would be used to resolve mutually exclusive situations. Actually, the procedure we envisioned was a one-day cut-off procedure for accepting applications. Thus, if application "X" was filed on a given day and no applications that were mutually exclusive were filed on that day or were already pending, then application "X" would be granted, assuming it had no fatal defect.

10 Under the first-come, first-served proposal, as under the current system, the Commission could not grant major filings until 30 days after public notice of their acceptance, allowing ample opportunity for parties with standing to file petitions to deny. Section 309(b) of the Communications Act of 1934, as amended (47 U.S.C. § 309(b)) requires public notice and a 30 day period before the Commission may grant certain applications.

11 Omnibus Budget Reconciliation Act of 1993, Pub. L. No. 103-66, , 107 Stat. 312.

12 See Implementation of Section 309(j) of the Communications Act -- Competitive Bidding, PP Docket No. 93-253, Second Report and Order, 9 FCC Rcd 2348 (1994).

carrier mobile service applications.[13] The Second Report also concluded that renewal and modification applications generally should not be subject to competitive bidding procedures.[14] In the Further Notice in this proceeding, we proposed inter alia to use competitive bidding procedures to award 931 MHz paging station authorizations for which mutually exclusive applications have been filed.

7. **Comments.** Most of the comments in response to the Notice oppose the first-come, first-served proposal. Radiophone questions whether the Commission has the statutory authority to adopt this licensing procedure. Citing Ashbacker Radio Corp. v. FCC, 326 U.S. 327 (1945), it argues that the procedure appears to unreasonably restrict the statutory right to file a competing application.[15] Many of the parties predict that use of the proposed first-come, first-served licensing process would impede the development of wide area systems,[16] increase incentives for speculation and abuse by so-called "application mills"[17] and encourage licensees to file petitions to deny and other pleadings that could embroil the Commission in legal disputes.[18] The parties further allege that use of the proposed procedure would upset existing carriers' carefully planned expansion strategies by forcing them to apply immediately for facilities in areas they might want to serve in the future, rather than allowing them to apply at a later time when sound business reasons justify the expansion costs.[19] Further, several of the commenters claim that adoption of the proposed first-come, first-served procedure would adversely impact small businesses that do not possess the capital to expand immediately.[20]

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13 Id., at paragraph 46. We also observed that because local exchange carriers generally operate under exclusive franchises, we did not anticipate mutual exclusivity between BETRS applicants. See Second Report at n.35. The Rural Radio Service, including the BETRS , is a fixed service regulated under Subpart H of Part 22 of our current Rules.

14 Id. at paragraph 39.

15 Radiophone Comments at 2-3.

16 See, e.g., Southwestern Bell Corp. (Southwestern Bell) Comments at 13; ALLTEL Mobile Communications, Inc. (ALLTEL) Comments at 2; McCaw Cellular Communications, Inc. (McCaw) Comments at 26; Metrocall of Delaware, Inc. (Metrocall) Comments at 7.

17 See Office of Advocacy of the Small Business Administration (OASBA) Comments at 9; NYNEX Mobile Communications Company (NYNEX) Comments at 3.

18 See Comments filed on behalf of Pactel Paging and 20 other Part 22 licensees (collectively referred to as the Joint Commenters) at 21.

19 Telocator Comments at 6.

20 Telocator Comments at 7; Metrocall Comments at 8; Radiophone Comments at 4.

8. As a modification to the proposed first-come, first-served licensing procedure, several parties recommend that we include mutually exclusive applications to expand existing systems in a random selection process with a first-filed application, rather than being dismissed. Specifically, these commenters suggest that applications be included in a random selection process if they are filed within 60 days after public notice of the first-filed application by licensees of co-channel facilities located within 250 kilometers (140 miles) of facilities requested in the first-filed application.[21] Several other parties suggest that we should retain the comparative hearing process as an option for any mutually exclusive applications filed by the licensees of existing co-channel facilities.[22] This compromise, they argue, would expedite the Commission's licensing process while, at the same time, reducing the negative impact on existing licensees.

9. As an alternative to first come, first served licensing, several parties suggest that the Commission adopt a market area licensing procedure (similar to that used for cellular systems) for stations in the Paging and Radiotelephone Service, instead of continuing to license paging systems on a transmitter-by-transmitter basis. These parties contend that using a market area approach would expedite the licensing process, reduce regulatory delays and encourage wide-area service.[23] They argue that market area licensing would achieve substantial administrative savings through economies of scale, reflect the realities of the marketplace, and be responsive to the needs of the public. A market area procedure, they note, would also be consistent with the Commission's approach to licensing the Personal Communications Services.[24]

10. OASBA expresses concern that the proposed combination of first come, first served and random selection procedures would encourage application mills to file numerous applications for facilities near existing systems, with the intention of seeking a buyout from those systems. OASBA suggests that we adopt a prohibition on resale or other changes in the ownership of licensed facilities for a set period of time. In addition, they argue, we should require that licensees commence construction of their systems within a specified period of time.[25] OASBA asserts that adoption of these provisions would deter application mills because their customers would have little hope of a quick pay off if they win the lottery.

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21 See, e.g., BellSouth Corp. and BellSouth Enterprises, Inc. (BellSouth) Comments at 3; Southwestern Bell Comments at 14.

22 See e.g., Radiophone Comments at 5-6; Telocator Comments at 9; OASBA Comments at 12.

23 See, e.g. Telocator Comments at 8 and Reply Comments at 2-3; Paging Network, Inc. Comments at 5-10; OASBA Comments at 12.

24 See, e.g., Amendment of the Commission's Rules to Establish New Personal Communications Services, GN Docket No. 90-314, Second Report and Order, 8 FCC Rcd 7700 (1993); modified, Memorandum Opinion and Order, FCC 94-144, released June 13, 1994; further recon. pending.

25 OASBA Comments at 10-11.

11. **Discussion.** Initially, we note that we believe the commenters' suggestion that we use market area licensing procedures may be feasible, at least for 931 MHz paging stations. It is not clear, however, whether a market area procedure would be workable for other Paging and Radiotelephone Service stations. Furthermore, we conclude that any decision to use a market area licensing approach would be more appropriately considered in a proceeding encompassing not only affected Part 22 systems, but also any other substantially similar commercial mobile radio systems. That is beyond the scope of this proceeding, which addresses Part 22 only.

12. Our objective in proposing first-come, first-served application processing was to expedite authorization of service in the Public Mobile Services. We thought that the proposed procedure would minimize the filing of mutually exclusive applications for initial or modified facilities and virtually eliminate the need to use random selection to choose among mutually exclusive applications. Nevertheless, upon further consideration we now conclude that the first-come, first-served procedure could have negative effects upon our processing procedures and the logical development of the Paging and Radiotelephone Service. The first-come, first-served procedure could encourage licensees to file for channels before they really need them in an attempt to pre-empt their competitors, increase incentives for speculation and abuse by "application mills," impede the development of wide area systems, and make it difficult for small businesses to compete effectively because those businesses frequently lack the capital to expand their systems immediately. See the arguments summarized in paragraph 7, supra. In this light, we conclude that we should have a filing period sufficiently long to allow serious and qualified potential competitors to file and be considered. We believe that a 30-day cut-off period is sufficient to allow all qualified applicants to file. Further, given our new authority to conduct auctions, it would appear that auctions would provide the most efficient way to determine which of several mutually exclusive applicants should prevail. Thus, the party that most highly values the spectrum would acquire that spectrum in a competitive bidding situation.[26]

13. On May 20, 1994, we released a Further Notice of Proposed Rule Making in GN Docket No. 93-252 (Transition Notice),[27] in which we proposed to adopt licensing procedures similar to those utilized in Part 22 of our Rules for those formerly private radio services which had been reclassified as "commercial mobile" radio services (CMRS) in the Second Report and Order in GN Docket No. 93-252.[28] In the Transition Notice, we tentatively

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26 We are mindful of our obligation under Section 309(j)(6) of the Act, 47 U.S.C. § 309(j)(6)(e), to "continue to use engineering solutions, negotiation, threshhold qualifications, service regulations, and other means in order to avoid mutual exclusivity in our application and licensing proceedings," and we will do so.

27 Implementation of Sections 3(n) and 332 of the Communications Act, GN Docket No. 93-252, Further Notice of Proposed Rule Making, FCC 94-100, released May 20, 1994.

28 Implementation of Sections 3(n) and 332 of the Communications Act, GN Docket No. 93-252, Second Report and Order, 9 FCC Rcd 1411 (1994); erratum, Mimeo No. 92486 (released March 30, 1994). .

concluded that competitive bidding procedures (auctions) should generally be used to pick the winner among mutually exclusive CMRS applications in Part 90 services subject to reclassification as well as Part 22 CMRS applications where we have the authority to do so.[29] We also tentatively concluded that initial applicants and certain major modification applications in Part 22 services (except cellular unserved area Phase I applications) as well as CMRS applications in Part 90 services subject to reclassification should be subject to 30-day filing windows in which competing applications may be filed.[30]

14. Under existing licensing procedures for Public Mobile Services other than cellular radio, such as paging, however, we have historically required carriers to apply for authority to operate each individual transmitter in a station, and, with certain exceptions, the Public Mobile Services authorizations we issue do not confer geographic exclusivity on the licensee beyond the station's actual reliable service area. Consequently, for these services it is not clear which types of mutually exclusive applications should be considered initial applications, and thus subject to competitive bidding procedures.

15. In the Further Notice in this docket, we proposed to subject 931 MHz paging applications to a 30-day filing window and to classify applications for 931 MHz paging stations as initial or modification applications for the purpose of determining whether competitive bidding procedures could be used. Specifically, we proposed that 931 MHz applications be considered applications for an initial authorization if they request a new facility, a new channel for an existing facility, or a new or relocated transmitter site more than 2 kilometers (1.2 miles) from an existing site of the same station on the same channel. In the Transition Notice, we proposed to apply the foregoing test to all commercial mobile radio services, including all Part 22 services.[31] Since the Further Notice in this docket concerns only 931 MHz paging applications, whereas the Transition Notice concerns all applications in the CMRS, including all Part 22 services, except for the Rural Radiotelephone Service (including BETRS) which is a fixed service,[32] we shall adopt appropriate processing and licensing rules for Part 22 CMRS services other than 931 MHz paging pursuant to the Transition Notice in the Report and Order concluding that proceeding. Thus, the rules we adopt in this docket relate solely to 931 MHz paging and Rural Radiotelephone Service (including BETRS) applications.

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29 Transition Notice at 53-54.

30 Id. at 55.

31 Id. at 58-59.

32 In the Second Report and Order in GN Docket No. 93-252, supra, we stated that the Rural Radio Service, which includes BETRS, is a fixed service and is not affected by the proceeding in GN Docket No. 93-252. 9 FCC Rcd at 1456. That docket deals with defining the Commercial Mobile Radio Service (CMRS) and rules pertaining thereto.

16. In view of the foregoing considerations, and after consideration of the comments in this proceeding and the effect of the recent amendments to the Act on our proposal, we are adopting a new rule to govern the processing of 931 MHz applications.[33] The new rule provides generally that (1) initial applications will be subject to a 30-day filing window for competing applications,[34] and (2) competitive bidding procedures will be used for processing filing groups comprised entirely of mutually exclusive applications for initial authorizations filed during the 30-day window.[35] In the new rule, we define the term "application for initial authorization" as we proposed, to include any application for a new station, any application for an additional channel) and any application to relocate a transmitter more than 2 kilometers (1.2 miles) from all authorized transmitters of the applicant licensee on the requested channel.

17. Modification applications that are not mutually exclusive with any application filed on the same or on a previous day will be accepted for filing and granted on a first-come, first-served basis.[36] Under the first-come, first-served procedure, mutually exclusive modification applications received on the same day will be given comparative consideration. Consistent with the Omnibus Budget Reconciliation Act, such applications will be designated for comparative hearing to determine which modification application should be granted, unless the parties negotiate a legal settlement on this issue. See paragraph 102 , infra. Further, a filing group comprised of at least one modification application as defined by Section 22.541 of our Rules and at least one initial application will, absent a settlement, be designated for comparative hearing because the Omnibus Budget Reconciliation Act does not allow the use of auctions to determine whether a modification application should be granted.

18. We shall also adopt first-come, first-served filing procedures for the Rural Radiotelephone Service, including BETRS. We do this for two reasons. First, the only procedures for processing Rural Radiotelephone Service (including BETRS) applications that have been properly noticed in this proceeding are the first-come, first-served procedures. See new Section 22.717 of our Rules. Second, we believe that these procedures are suitable for this service. It is very unusual for a rural radio application to be mutually exclusive with any other application, even though applicants in the Rural Radiotelephone Service and the Paging and Radiotelephone Service can file for many of the same channels. Further, we do not anticipate

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33 See new § 22.541 in Appendix B.

34 This is similar to the current "notice and cut-off" procedure, except that 30 days will be allowed for filing competing applications rather than 60 days.

35 If one of a group of mutually exclusive applications is a timely application for renewal of an expiring authorization, special rules for contested renewal proceedings will be used (generally involving comparative hearings).

36 Our new rules do not use the term "first-come, first served." Rather, applications processed pursuant to first-come, first-served procedures are defined as being members of a "same day filing group."

mutual exclusivity between BETRS applicants because local exchange carriers generally operate under exclusive franchises. See note 12 at page 5, supra. The first-come, first-served procedures would allow an application to be granted if it is not mutually exclusive with another application filed on the same or on a previous day and if the applicant in question is qualified to be a Commission licensee. Further, under these procedures, mutually exclusive applications received on the same day would, absent a negotiated settlement among the parties, be designated for a comparative hearing to determine which application should be granted. Lastly, if a rural radio application is filed during a filing period which commenced with the issuance of a public notice that an application for the Paging and Radiotelephone Service had been filed, then all applications filed during this period would, absent a negotiated settlement among the parties, be designated for a comparative hearing to determine which application should be granted.

19. We will no longer allow licensees whose applications for expansion of their existing systems are mutually exclusive to request that a comparative hearing be held.[37] . Contrary to the view expressed by some of the parties, we have not determined that regional and wide-area paging services always serve the public interest better than local paging services. Thus, even if we were to retain the option of requesting a comparative hearing, we have no basis for concluding that system expansion applications would necessarily prevail in a comparative hearing over applications for new stations.[38] Moreover, the record of this proceeding does not demonstrate that the public interest would be better served by awarding licenses by comparative hearings rather than the type of procedures we adopt today. Although we have provided spectrum for and encouraged the establishment of regional and national paging networks, both in the Public Mobile Services and more recently in the private radio services, our position remains that the marketplace should determine the proper mix of wide-area and local paging service. Our new competive bidding procedures will ensure that authorizations will be issued to the applicant that places the highest value on the spectrum rather than whether the applicant seeks expansion of an existing system or establishment of a new station.

Finders' Applications

20. **Proposal.** The Notice proposed to provide an incentive for identifying unused spectrum by enabling applicants to file "finders' applications" requesting licensing of channels that have been assigned, but are unused. .[39] Although such an application would ordinarily be considered defective for failing to meet the technical protection requirements with respect to the existing assignment, under the proposed rules it would be accepted for filing pending the outcome

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37 This option is currently available pursuant to Section 22.33(c) of our Rules.

38 No applications have ever been designated for a hearing under Section 22.33(c) of our Rules.

39 This concept was originally suggested to the Commission in 1988 and 1989 by the Special Industrial Radio Service Association, Inc., and the National Association of Business and Educational Radio, Inc. It is codified in Section 90.173(k) of our Rules governing Private Radio Services.

of a staff investigation to determine whether the station was never constructed or had been abandoned. In the Notice, we proposed specific information that a finder's application would include. Under this proposal, if our investigation revealed that the authorization assigning the requested channel had in fact automatically terminated, we could recover and reassign the affected channel. The finder's application submitted by the applicant would then be either the sole or the first-filed initial application for the recovered channel.

21. **Discussion.** We defer any decision on the finders' applications proposal at this time because we need to examine the proposal in more detail pursuant to a future Notice of Proposed Rule Making for all Commercial Mobile Radio Services, including Part 90 reclassified services. Currently, finders' preferences are available under Part 90 . In the Transition Notice in GN Docket No. 93-252, we proposed to use the same filing and processing rules for all substantially similar CMRS applications in both Part 22 and Part 90. We will evaluate the function of finders' preferences in light of our decision in that docket.

Relaxation of Notification Requirements

22. **Proposals.** In the Notice, we proposed to remove the requirement that licensees notify the Commission when they make "permissive" minor modifications to their stations or add new "internal" transmitters to existing systems.[40] We believe that most of the notifications filed simply to satisfy this requirement are unnecessary because the information is not needed by the Commission staff, other licensees or the public. Adoption of this proposal would reduce the number of notifications filed and thus conserve Commission and industry resources. We noted however, that, because there would not be any public record of modifications made or transmitters added without subsequent notification, either in the station files or computer data bases, those modifications or additional transmitters would not be directly protected from interference.

23. **Comments.** Telocator recommends four revisions to our proposal to eliminate our notification requirements: (1) establish a five-mile "buffer zone" around the CGSA of each cellular system at the expiration of its five year build-out period and allow carriers to make modifications within the buffer zone without prior approval, provided that no extensions into adjacent markets result;[41] (2) clarify that cellular carriers may modify transmitters "within the core of their systems" without notifying the Commission; (3) require cellular carriers to notify the Commission after modifying cells that constitute a portion of their system's CGSA boundary; and (4) specify that interference protection will be afforded to facilities operating within the aggregate contour of a cellular system.[42] McCaw Cellular Communications, Inc. (McCaw) agrees that cellular licensees should be required to notify the Commission of minor changes to cells

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40 See new §§ 22.163 and 22.165.

41 See also PacTel Cellular (Pactel) Reply Comments at 5.

42 Telocator Comments at 50-51.

constituting the CGSA boundary, so that licensees of adjacent cellular systems will be able to assess interference potential correctly when designing their own systems.[43] Comp Comm, Inc. (Comp Comm) requests that we require licensees to file engineering information whenever any technical changes are made to a perimeter cell of a cellular system. [44] McCaw and PacTel Cellular (PacTel) also argue that notification should be required for new cell sites that affect the CGSA boundary. Further, they recommend that cellular licensees be required to notify the Commission if formerly internal cell sites (for which no notification was originally submitted) become a part of the CGSA boundary, due to discontinuance of other cells.[45]

24. Metrocall of Delaware, Inc. (Metrocall) suggests that we incorporate a general principle that notification is required for any minor change that would require a change in our computer database.[46] MetroCall argues that licensees should be allowed to notify the Commission in order to obtain interference protection for a modified facility.[47] PacTel suggests that licensees should be allowed to file notifications once each year on a consolidated basis for each system in order to obtain interference protection for modified facilities.[48] Joint Commenters recommend that the proposed rule be revised to provide that licensees are not required to file applications or notifications reflecting system changes that do not alter the service contour by more than two kilometers in any direction.[49] Joint Commenters suggest that we locate proposed Section 22.123 (classification of filings under Section 309 of the Act) closer in the rules to proposed Section 22.163 (minor modifications not needing prior Commission approval) or combine the two, because they are related.[50] Joint Commenters also suggest limiting the encompassment criterion for Paging and Radiotelephone Service stations to interfering contours, rather than both service and interfering contours.

25. **Discussion.** We adopt new Sections 22.163 and 22.165 essentially as proposed. For reasons discussed below, however, we accept the suggestion made by many of the commenters and retain the notification requirement for the addition or modification (under these new rule sections) of cell sites that form a CGSA boundary in order that licensees of adjacent cellular

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43 McCaw Comments at 34-35.

44 Comp Comm Comments at 37-38.

45 McCaw Comments at 34-35; PacTel Reply Comments at 4.

46 Metrocall Comments at 30.

47 Id.

48 PacTel Comments at 4.

49 Joint Commenters Comments at 36-37.

50 Id. at 65.

systems will be able to assess interference potential correctly when designing or modifying their systems. We note that generally the record supports eliminating the notification requirement for most additions and modifications and that our doing so will save substantial industry and Commission resources.

26. Many commenters are concerned that facilities for which no notification was submitted[51] would not receive direct protection from interference. This means, for instance, that we would not dismiss an application (e.g. pursuant to a petition to dismiss or deny) solely on the grounds that the application does not include an interference study for an existing facility if there is no current FCC public record of that facility. In such a case, the applicant would have had no way of knowing the current technical parameters of that facilty (or perhaps even that it exists).[52] As a practical matter, we believe that facilities added or modified without prior approval or subsequent notification under these new sections will not receive interference because they will be indirectly protected by the presence of surrounding stations of the same licensee on the same channel or channel block.[53] We also note that the new rules we are adopting do not prohibit licensees from filing notifications. Thus, if a licensee desires that a new transmitter or other modification appear in the Commission's public records and thus be directly protected from interference, it can notify the Commission of that new transmitter or modification by filing FCC Form 489.

27. We see no public benefit that would result from adopting Telocator's recommendation to establish a "buffer zone" around cellular system CGSAs. Doing so would frustrate the purposes of our rules that establish a five year build-out period and provide for the filing of unserved area applications. In effect, this proposal would allow carriers to expand their CGSAs by modifying facilities after their exclusive right to expand within the market had ended. Therefore, we reject this suggestion. We likewise reject Telocator's second recommendation, because the rule as proposed allows cellular carriers to make modifications anywhere (not just in the "core" of the systems) provided that an application requesting the modifications would be classified as minor under new Section 22.123.[54] On the other hand, consistent with Telocator's third recommendation, the rules we are adopting today will continue the current requirement that cellular licensees notify us if they change or replace the cells that constitute a portion of their systems' CGSA boundaries. Further, as proposed in the Further Notice, we are requiring all cellular licensees to submit specific information for each of their external cell sites as a one time

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51 See new § 22.352(b)(6).

52 The rules requiring interference studies, new §§ 22.559 and 22.589, refer to "protected" transmitters. We reworded §§ 22.537(b) and 22.567(b) to clarify that there must be a current public record of transmitters in order for them to be considered protected.

53 This assumes, of course, that the surrounding stations are correctly represented in FCC public records.

54 See Appendix A at 11-14 for a discussion of this rule.

filing that will assist the staff in updating the Commission's database of cellular systems. See paragraph 87 , infra.

28. We reject Joint Commenters' suggestion concerning changes that alter the service contour by less than 2 kilometers, because applications for such changes would not be classified as minor (see discussion of new Section 22.123 in Appendix A). In addition, while we agree that new Sections 22.123 and 22.163 are related, we are keeping them separate because they address two different purposes: the former explains the basis for classifying applications and amendments, and the latter allows licensees to make minor changes to existing facilities without seeking or obtaining prior approval. We cannot adopt Joint Commenters' suggestion that paragraphs (d) and (g) of Section 22.165 be concerned only with interfering contours rather than both service and interfering contours, because our Notice did not propose to base those paragraphs only on interference service contours and we do not have a sufficient record on this issue. The idea may have some merit, however, and we may propose it in a further notice at some future point. In view of our adoption of fixed distance technical channel assignment criteria for BETRS transmitters (new Section 22.759) and the fact that BETRS transmitters do not operate in a simulcast mode, we have added a sentence to paragraph (g) indicating that this section does not apply to BETRS.

Definition of "Service to Subscribers "

29. **Proposal.** Currently, our rules require that Public Mobile Services stations must be constructed and ready for operation prior to the end of the construction period, that licensees must file a notification form when construction is completed, and that service to the public may commence upon filing of that notification.[55] In the Notice, we proposed that stations must actually commence providing service to the public by the end of the construction period.[56] Failure to provide service by the date of required commencement of service would automatically terminate the authorization without any further notice or other action by the Commission. The proposal would require that licensees notify the Commission of commencement of service to the public (as opposed to merely completion of construction and readiness for operation) by filing a notification (FCC Form 489) not later than 15 days after service to the public begins. We stated in the Notice that the proposed rule is intended to encourage licensees to provide service to the public as expeditiously as possible.

30. **Comments.** Many of the commenters argue that the Commission's definition of "service to the public" would play a significant role in the new Part 22 rules[57] and that further

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55 See old §§ 22.9 and 22.43.

56 The end of the construction period, which is printed on all Public Mobile Services authorizations as the "date of required completion of construction," would be called the "date of required commencement of service. "

57 See proposed §§ 22.142, 22.144(b), 22.121(d), 22.167, and 22.507(a).

clarification of that phrase is needed. They disagree, however, on the appropriate definitions for the term. For example, Telocator argues that service to the public should entail only the construction and installation of functioning equipment that could be used to provide such service. Telocator states that this would include a transmitter, antenna, transmission line, and a terminal that is connected to the transmitter and the public telephone network.[58] Pacific and Nevada Bell suggest that "service to the public" should be defined as to require systems to have a specified minimum number of non-affiliated, revenue-producing customers.[59] McCaw recommends that the Commission include a definition of "service to the public" in proposed Section 22.99. It suggests that this term be defined as construction of a paging or conventional two-way system that is interconnected to the landline network and capable of providing paging and/or radiotelephone service.[60]

31. **Discussion.** First, we are maintaining the current requirement that Public Mobile Services stations must be constructed by the end of the applicable construction period. By "constructed," we mean the completion of the construction, installation, and testing of a functioning station that is interconnected with the public switched telephone network. We emphasize that to meet this requirement, licensees must actually be able to transmit from a constructed facility; reselling a competing carrier's service will not satisfy the construction requirement.[61] This requirement furthers our public interest goal of promoting facilities-based competition in the Public Mobile Services.

32. We are also adopting, as proposed, the new requirement that Public Mobile Services stations must commence service to the public by the end of the construction period. This additional requirement will discourage a licensee from obtaining an authorization, and perhaps even constructing facilities, but not using them to offer service to the public.[62] Over the years, licensees have applied for channels that were not needed immediately in order to "warehouse" them; i.e., have them available for future use, while depriving any competitors of their present

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58 Telocator Comments at 17.

59 Pacific Bell and Nevada Bell Comments at 5.

60 McCaw Comments at 12-13.

61 See, e.g., Delray Cellular Associates, 4 FCC Rcd 2233 (Mobile Serv. Div. 1989).

62 Currently, if a licensee does not construct a facility, the authorization for that facility automatically terminates. If a licensee does construct the facility, but overlooks notifying the Commission that construction has been completed, that licensee will generally receive a notification of apparent liability for a forfeiture (a monetary fine). Under the new rule, if a licensee does not provide service to subscribers (as we define them herein), the authorization will automatically terminate. The penalty for failing to file a required form will not change.

use. This practice clearly results in an inefficient utilization of the spectrum. We believe that our new requirement will effectively discourage such "warehousing" of channels.

33. We have determined that in order to be considered as providing service to the public, a system must be providing service to at least one subscriber who is not affiliated or controlled by the licensee or in any other manner related to the licensee . Further, we shall define the foregoing service as "service to subscribers" in order to avoid confusion with the term "service to the public" that is used with respect to the Commercial Mobile Radio Service (CMRS). We have also included a definition of "service to subscribers" in Section 22.99 of the new Rules we adopt today. This term plays an integral role in new rule Sections 22.142, 22.144(b) and 22.121(d). We believe that this definition is consistent with the Act, which requires that a Commission license for all uses of radio, including use for common carrier purposes, can be obtained only upon a showing that the "public interest, convenience and necessity" will be served, 47 U.S.C. §§ 301, 307-310. In determining the showing to be made, the Commission can properly consider that the "public interest" demands that those who are entrusted with the available channels shall make the fullest and most effective use of them.[63]

Conditional Licensing

34. **Proposal.** We proposed in the Notice to rely on the technical exhibits provided by applicants in the Paging and Radiotelephone Service and Rural Radio Service without verifying their accuracy prior to grant. We proposed that instead of verifying these technical exhibits, we would grant authorizations subject to the condition, throughout the license term, that the licensee would not be allowed to continue to operate if such operation caused interference to other licensed facilities as a result of errors or omissions in the technical exhibits submitted with the application. Specifically, if interference were to occur because of an error or omission in the technical exhibits to the application, the Commission could order the licensee to suspend operation of the facilities at the locations causing the interference, without affording an opportunity for a hearing, until such time that the facility is modified to resolve the interference. We pointed out that while applicants are currently required to certify that the statements made in the application, including the technical exhibits, are complete, we proposed to strengthen this certification to provide that the applicant has carefully reviewed the engineering of its proposal and certifies that it complies with the Commission's technical rules for operation on an interference-free basis. We also requested comment as to whether the condition should remain in effect throughout the license term.

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63 See Microwave Service to CATV Systems, 1 FCC 2d 897 (1965) (the Commission interpreted Section 301 of the Act to require carriers to show public need or that at least 50 percent of the proposed usage in the public point-to-point service is to serve members of the public that are not related to the applicant. Id., at 902-904). See also Section 21.700(c).

35. **Comments.** The commenters generally opposed this proposal. Some of the parties are concerned that the license condition would be invoked in response to many different types of interference. Other commenters argue that our proposal to grant authorizations conditionally for the entire license term would (1) adversely affect the provision of service to the public;[64] (2) create uncertainty with respect to the validity of authorizations;[65] and (3) make it more difficult to finance and sell facilities.[66] Joyce and Jacobs, Radiophone, and Southwestern Bell contend that the proposal would deprive applicants of the statutory and other protections normally afforded them.[67] Finally, they contend that the conditional licensing proposal is unclear as to what procedures the Commission will follow when it receives a complaint of interference, i.e., whether the Commission would initiate a preliminary investigation after receiving such a complaint.

36. Several commenters, such as Telocator, Southwestern Bell, Radiophone, and SMR Systems, Inc. (SSI), recommend that if the Commission adopts this proposal, we should limit the conditional license period to one year from the date of commencement of service. Radiophone argues that any interference that would arise should become apparent during the first 12 months of operation.[68] Moreover, Telocator asserts that the 12 month period would afford affected co-channel licensees three opportunities to question another licensee's operation: (1) upon notice of the application as acceptable for filing; (2) upon notice of the grant of the application; and (3) upon notice of commencement of operation of the facilities.[69] SNET Paging, Inc. (SNET) concludes that limiting the length of the conditional license period avoids the drawbacks of this proposal while promoting the Commission's objectives.[70]

37. **Discussion.** After having considered our proposal and the arguments advanced in the comments, we have decided not to adopt our conditional licensing proposal. We agree with the commenters that the conditional grant proposal would create uncertainty with respect to the validity of authorizations and also could make efforts to finance or sell facilities more diffficult

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64 Telocator Comments at 10.

65 BellSouth Comments at 4-5; U S WEST NewVector Group, Inc. (NewVector) Comments at 5-6.

66 PageNet Comments at 38-39; Telocator Comments at 11; Joint Commenters Comments at 27; SMR Systems, Inc. (SSI) Comments at 6.

67 Radiophone Comments at 6-10; Southwestern Bell Comments at 14-15; Joyce and Jacobs Comments at 3-4.

68 Radiophone Comments at 8-9.

69 Telocator Comments at 11.

70 SNET Paging, Inc. (SNET) Comments at 11-12.

than is currently the case. Moreover, it is possible that the resources that would be required to enforce our conditional grant proposal could exceed the savings realized by not reviewing the technical exhibits in the first place. In brief, "unscrambling the egg" could be a very difficult, if not impossible, process if an applicant commences operation of a facility and interference problems develop that could have been foreseen if an engineering review of the technical exhibits in the application had been conducted. Thus, we will continue to verify the accuracy of technical engineering exhibits submitted with applications.

Electronic Filings

38. Section 1.743 of our Rules requires all common carrier applications to be "personally" signed by the applicant or, in certain circumstances, by the applicant's attorney. Thus, a handwritten signature is currently required for all common carrier applications. In October 1992, after release of the Notice in this proceeding, Congress amended the Communications Act to allow electronic filing of applications.[71] Specifically, Sections 308(b) and 319(a) of the Act were amended to allow applications to be signed "in any manner or form, including by electronic means, as the Commission may prescribe by regulation." Id., §§ 204(b), (c). A conforming amendment was also added to eliminate the requirement of a "signed" waiver under Section 304 of the Act. Id., § 204(a).

39. Pursuant to the authority expressly delegated by Congress, we have decided to modify the handwritten signature requirement as it applies to common carrier applications. Specifically, we amend Section 1.743(a) to delete the word "personally" from the application signature requirement. Further, the signature requirement is amended to give the Common Carrier Bureau discretion to establish filing procedures by public notice (to be published in the Federal Register) that would allow applications to be "signed" by computer-generated impulses. Modification of the handwritten signature requirement will allow us to move towards more efficient processing of common carrier applications. Our ultimate goal is to eliminate, to the extent possible, the filing of paper applications. Electronic filing will expedite the licensing process by eliminating the need for manual entry of application data into the Commission's data base. We also hope to develop the means to generate and transmit license information to licensees electronically with no intermediate paper documents.

40. We emphasize that under new Section 1.743 of the Rules, handwritten signatures will continue to be required on all common carrier applications unless and until the Common Carrier Bureau establishes specific procedures for electronic filing of such applications. Such procedures will be implemented by publication of Public Notices in the Federal Register, and the use of modified application forms.

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71 Telecommunications Authorization Act of 1992, Pub. L. No. 102-538, 106 Stat. 3533 (1992), Section 204.

41. The foregoing revisions to Section 1.743 of the rules relate to matters of practice and procedure only. Therefore, they are excepted from the notice and comment requirement of the Administrative Procedure Act, 5 U.S.C. § 553(a).

Multichannel Transmitters

42. **Proposal.** In the Notice, we proposed to require a separate transmitter for every assigned channel at each location. We stated that the proposed rule was intended to eliminate the practice whereby one multi-channel transmitter (MCT) is installed at a site where two or more channels are authorized. Because the MCT can transmit on only one channel at a time, all but one of the assigned channels at that site are unused at all times. Our rules concerning the assignment of additional channels are based on the assumption that all assigned channels could and would be used simultaneously. We stated our tentative view in the Notice that the use of MCTs to satisfy construction requirements constitutes inefficient use of the spectrum. We also stated that our proposal to require a separate dedicated transmitter for each assigned channel would discourage warehousing. We requested comments, however, as to whether there is a less stringent requirement that would also meet this objective. Finally, we proposed to require that all transmitters within a station must be operationally related in order to be authorized together as a station.

43. **Comments.** The commenters oppose the proposal to require a separate transmitter for every assigned channel at each location.[72] They argue that the Commission's rules should expressly allow licensees to use MCTs at sites with more than one assigned channel provided that they satisfy the construction and service requirements. They argue that the legitimate uses for MCTs include (1) facilitating the introduction of additional public mobile services, such as nationwide paging;[73] (2) enhancing the variety of services offered, such as voice or text paging;[74] and (3) facilitating the sharing of channels under time-sharing agreements.[75] OASBA believes that these useful functions represent an effective mechanism for small paging systems to increase coverage, reduce inefficient use of transmitters, and lower costs to subscribers. McCaw avers that the cost to provide service using a second channel when incorporated into a MCT is significantly lower than if separate transmitters are used, thus benefitting the public interest.[76] Furthermore, McCaw argues that a prohibition against MCTs would not deter warehousing because any carrier wishing to warehouse can easily supply a single inexpensive low power transmitter to maintain traffic on the channel and thereby preclude other carriers from filing for that channel. In any

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72 See, e.g., Joint Commenters Reply Comments at 10-12.

73 Telocator Comments at 35.

74 OASBA Comments at 20.

75 Telocator Comments at 35-36 and Reply Comments at 5-6.

76 McCaw Comments at 31-32.

event, SNET argues that the Commission's proposed rules regarding settlements, first come, first served, and repetitious filings serve best to deter warehousing.[77] Finally, Telocator contends that adoption of the proposal would further aggravate the asymmetrical regulation between private carriers, which are not restricted as to the type of transmitters they use, and Part 22 common carriers.[78]

44. **Discussion.** We have been persuaded by the commenters to alter our initial proposal and affirmatively allow the use of MCTs. While we remain concerned that the use of MCTs where two or more channels are authorized could result in inefficient use of the spectrum, we agree with the parties that many MCT uses serve legitimate public interest goals that on balance outweigh this risk. For example, as the parties have noted, use of MCTs has enhanced other service offerings, facilitated the introduction of mobile services, such as nationwide paging, and promoted the sharing of channels under time-sharing agreements. We also note that, with the elimination in this order of old Section 22.119 (see paras. 68-72) generally prohibited the use of a transmitter licensed under Part 22 for any non-common carrier purpose, it does not make sense to prohibit a commercial mobile radio provider from using a MCT to transmit on additional Part 22 channels while allowing that provider to use the MCT to transmit on Part 90 channels as well as its assigned Part 22 channel.

Additional Channel Policy

45. **Proposal.** We proposed to eliminate the currently required traffic loading studies for applications requesting more than one channel for a new station, or one or more additional channels for an existing station in the paired spectrum designated for one-way or two-way mobile operation. We explained that this proposal was based on the proliferation of competitive telecommunications services, our decisions in other proceedings affecting public mobile service[79] channel usage, and our concerns regarding the burden these studies impose on licensees and our staff. Instead of requiring traffic loading studies to justify requests for additional channels, we proposed to allow applicants to apply for no more than two channels at one time. A licensee would be required to be providing service on those channels before applying for additional channels. The Notice further explained that this method would allow licensees that need

77 SNET Comments at 4-5.

78 Telocator Comments at 36.

79 See, e.g., Flexible Allocation of Frequencies in the Domestic Public Land Mobile Service for Paging and Other Services, CC Docket No. 87-120, First Report and Order, 4 FCC Rcd 1576 (1989), in which the Commission decided to allow market forces to determine which common carrier services are offered on two-way public mobile channels.

additional channels the opportunity to obtain them, while continuing to provide an adequate safeguard against warehousing.[80]

46. **Comments.** Most of the parties support elimination of the requirement for traffic loading studies. They believe that these studies are of questionable reliability[81] and are unnecessary in view of the increased competition to mobile telephone service offered by cellular systems.[82] They note that it will reduce the current burdens on both licensees and the Commission associated with the preparation and analysis of loading studies.[83] The commenters, however, are split in their support for our proposal to limit the number of channels that applicants may apply for at one time. Joint Commenters, who support our proposal generally, question the fairness of allowing a carrier intending to provide one-way paging service using the one-way and two-way mobile channels to request two channels at one time while limiting a carrier intending to provide one-way paging service using the one-way paging channels to requesting one channel at a time.[84] They suggest that either we should allow the same number of co-pending channel requests for both one-way and two-way channels, or applicants seeking the two-way channels should be required to provide two-way service.

47. Telocator and Metrocall oppose our proposal to require a licensee to provide service on its authorized channels before applying for additional channels. They believe that licensees should be allowed to apply for an additional channel as soon as the previous application is granted, and not have to wait until the station is actually constructed and providing service.[85] They argue that the proposed rule would delay service to the public, particularly in cases where a pending application requires international coordination, which can sometimes be a lengthy process. Expressing the opposite concern, Arthur K. Peters, Consulting Engineers (AK Peters) argues that the "two channels at one time" policy will allow channel hoarders to acquire additional channels without having any significant traffic on the channels they already have. As

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80 The Commission has been using a similar procedure for several years to govern additional channel requests for one-way paging operations. The difference between that current procedure and our proposal is that a licensee now may file an application for an additonal paging channel as soon as the previous application has been granted.

81 See Joint Commenters Comments at 8; Telocator Comments at 39.

82 Joint Commenters Comments at 8-9.

83 GTE Comments at 5; New Vector Comments at 8.

84 Joint Commenters Comments at 9-10, 72-73..

85 See, e.g., Telocator Comments at 40; Metrocall Comments at 29.

a compromise, it suggests that applications only be allowed in increments of one channel for the same geographic area.[86]

48. **Discussion.** We will adopt our proposal to eliminate traffic loading studies. The commenters concurred in our finding that these studies are often of questionable reliability and are burdensome for both licensees and the Commission's staff. We agree, however, with the commenters who note that the proposed rule, in conjunction with our existing additional channel policy for one-way paging channels, would have the unintended result of allowing a carrier seeking to provide paging service using the one-way or two-way channels to obtain two such channels at one time while allowing a carrier seeking to provide paging service using the one-way paging channels to obtain only one channel at one time. To rectify this inconsistency, we amend the rules to allow carriers seeking to provide paging service to obtain only one channel at one time, regardless of whether the channels are designated exclusively for one-way paging or for one- and two-way mobile operation. For applications proposing a two-way mobile telephone service such as IMTS (but not a two-way paging service), we will allow applicants to obtain two channels at one time as we proposed.

49. We emphasize that, in either case, the carriers must receive the authorizations, construct the stations, provide service to subscribers as we have defined it supra, and notify the Commission of the commencement of that service before seeking additional channels in the same general service area. Our new rules provide that applications for additional channels in an area that are filed before the applicant notifies the Commission of commencement of service on channels already assigned to the same applicant in the same general service area may be dismissed. We disagree with Telocator and Metrocall that the Commission should accept an application for additional channels as soon as the previous application is granted. Although we currently allow this practice, we believe that continuing to allow it would encourage channel hoarding as described by AK Peters.

BETRS Channel Assignment Policy

50. **Proposal.** We proposed in the Notice to apply the additional channel policy proposed for the Paging and Radiotelephone Service to the Rural Radio Service as well because stations in both services use many of the same channels. Also, we noted that Part 22 does not currently contain any technical rules for assignment of channels to Basic Exchange Telephone Radio Systems (BETRS) in the Rural Radiotelephone Service. We requested comments as to what rules are necessary to govern channel assignments for BETRS, and the technical criteria that should be used.

51. **Comments.** The commenters oppose applying to BETRS the Paging and Radiotelephone Service rule limiting carriers to two channels per application cycle. For example,

86 AK Peters Comments at 8.

U S WEST New Vector Group, Inc. (New Vector) argues that the "two channel at a time" rule is inappropriate because it does not consider how channels are used for BETRS in this service.[87] It explains that BETRS channels are used to provide a grade of service that is equivalent to landline telephone exchange service, and that the number of channels needed in each individual case is determined by a number of varying factors.[88] GTE, NewVector, and United States Telephone Association (USTA) suggest that the number of channels assigned in a BETRS authorization should be based on industry-developed technical criteria that take into consideration the number of subscribers to be served, the planned grade of service,[89] the terrain, and potential for interference.[90] They state that the existing rule (that allows assignment of no more than four channels per application cycle) in effect prevents carriers from using BETRS to provide rural subscribers with the necessary grade of service. The proposed rule, they argue, would further limit the quality of service and the usefulness of BETRS. GTE and New Vector propose that we adopt a rule that establishes a procedure for assigning channels for fixed rural service. USTA recommends that the Commission allow providers of rural radio service to submit projected traffic studies and other showings to justify the need for additional channels.

52. **Discussion.** Although we proposed to apply the "two channels at a time" rule to Rural Radiotelephone Service generally, we agree with the commenters that it makes little sense when applied to BETRS specifically. BETRS technology is spectrum efficient in that it uses relatively low power and provides two or four full duplex audio channels per radio channel pair. Nevertheless, to provide 40 rural customers with private line grade service (meaning service with a negligible blocking level, as opposed to party line service) could require 10 channel pairs. Thus, we agree with the commenters that applying the two channel limit to BETRS would restrict the installation of such facilities and in certain situations could prevent using BETRS to provide telephone exchange service to customers in very remote rural areas.[91]

53. We have added a rule to govern BETRS channel assignments along the lines suggested by the parties, but which also contains safeguards to prevent BETRS from using the entire 454 MHz spectrum in urban or populated areas where there is presently substantial demand

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87 New Vector Comments at Appendix I, p.36.

88 Id.

89 Requirements for a particular minimum grade of service for basic exchange telephone service are generally established by state public utility commissions.

90 GTE Comments at 23; USTA Comments at 5-6.

91 To provide private line grade service to customers in very remote areas, often the only alternative to BETRS is the installation of copper wire. The use of wire, however, is often infeasible because it is expensive to install and maintain, is vulnerable to damage and theft, requires right-of-way or easements through private property which may be expensive or difficult to obtain in some cases, and installation may harm environmentally sensitive areas.

for paging and radiotelephone service.[92] Under this rule, the number of additional channels assigned to BETRS in the Rural Radiotelephone Service will be determined on a case-by-case basis, taking into account all relevant factors, including the grade of service required, the equipment utilized, the amount and type of service for which demand is projected, the clustering of the customer locations, the terrain, and the potential for interference between systems. In addition, BETRS applicants will be required to demonstrate that ample spectrum would remain, after grant of their application, to meet present and projected future demand for mobile service in the area involved. We also are adding rules governing the technical characteristics of BETRS equipment as suggested by the commenters.[93] We believe that these new rules will permit us to assign an adequate number of channels for BETRS in rural areas while, at the same time, ensuring that sufficient 454 MHz public mobile spectrum remains available to meet present and future mobile service needs.

Cellular Electronic Serial Numbers

54. **Proposal.** We proposed in the Notice a new rule (Section 22.919) intended to help reduce the fraudulent use of cellular equipment caused by tampering with the unique Electronic Serial Numbers (ESN) that identify mobile equipment to cellular systems. The purposes of the ESN in a cellular telephone are similar to the Vehicle Identification Numbers in automobiles. That is, it uniquely identifies the equipment in order to assist in recovery if it is stolen. More importantly, in the case of cellular telephones, the ESN enables the carriers to bill properly for calls made from the telephone. Any alteration of the ESN renders it useless for this purpose. The proposed rule explicitly establishes anti-fraud design specifications that require, among other things, that the ESN must be programmed into the equipment at the factory and must not be alterable, removable, or in any way able to be manipulated in the field. In addition, the proposed rules require that the ESN component be permanently attached to a main circuit board of the mobile transmitter and that the integrity of the unit's operating software not be alterable.

55. **Comments.** The commenters generally support our proposal,[94] but they suggest some modifications. For example, BellSouth, Southwestern Bell, GTE, and CTIA suggest that our proposal should be modified to provide that equipment already manufactured, is exempt from the rule.[95] They argue that subjecting existing phones to this rule would be very expensive and difficult, if not impossible, to implement. Therefore, they recommend that the rule apply only

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92 See discussion of new § 22.719 in Appendix A.

93 See discussion of new §§ 22.567 and 22.759 in Appendix A.

94 See, e.g., PacTel Comments at 2; CTIA Comments at 7-8.

95 BellSouth Comments at Appendix 2, p.36; Southwestern Bell Comments at 28-29; GTE Comments at 30; CTIA Comments at 8.