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

In the Matter of	)	
	)	
Year 2000 Biennial Regulatory Review – Amendment of Part 22 of the Commission's Rules to Modify or Eliminate Outdated Rules Affecting the Cellular Radiotelephone Service and other Commercial Mobile Radio Services	)	WT Docket No. 01-108

NOTICE OF PROPOSED RULEMAKING

Adopted: May 3, 2001 **Released: May 17, 2001**

Comment Date: July 2, 2001
Reply Comment Date: August 1, 2001

By the Commission: Commissioner Tristani issuing a separate statement.

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I. INTRODUCTION

1. In this Notice of Proposed Rulemaking (*Notice*), we propose to amend Part 22 of our rules to modify or eliminate regulations that have become outdated as a result of technological change, increased competition in the Commercial Mobile Radio Services (CMRS), supervening changes to related Commission rules, or a combination of these factors. We focus particularly on the rules in Part 22, Subpart I that govern the Cellular Radiotelephone Service (cellular), but we also consider modification or elimination of certain other rules that affect all Part 22 Public Mobile Services.

2. We initiate this proceeding as a part of our year 2000 Biennial Review of regulations pursuant to Section 11 of the Communications Act of 1934, as amended (Communications Act).[1] Section 11 requires us to review all of our regulations applicable to providers of telecommunications service, and to determine whether any rule is no longer in the public interest as a result of meaningful economic competition between providers of telecommunications service and whether such regulations should be deleted or modified.

3. Pursuant to that statutory standard, the Commission staff has recently completed a report on its comprehensive review of regulations that affect telecommunications service providers, and the Commission has issued a report endorsing recommendations made by staff as a result of that review.[2] In the staff report, the staff notes that many of the Part 22 rules regulating cellular telephone service date back to the inception of the service in the early 1980s, when the two cellular carriers in each market were the only providers of mobile telephony, thus creating a "duopoly" market for this service. The staff report recommends initiating a rulemaking to review the cellular rules and consider which of these rules are obsolete as a result of the technological advances and growth of competition that have occurred in mobile telephony since the rules were

[1] *See* Section 11 of the Communications Act of 1934, as amended, 47 U.S.C. § 161.

[2] *See* Biennial Regulatory Review, CC Docket No. 00-175, *Report*, FCC 00-456 (adopted December 29, 2000; released January 17, 2001) (*Biennial Review Report*); Biennial Regulatory Review 2000 Updated Staff Report, released January 17, 2001 (*Biennial Review Staff Report*).

adopted. The report also recommends review of certain other Part 22 rules on the same basis.[3]

4. In the *Biennial Review Report*, we agreed with the staff's recommendation that pursuant to Section 11, we should initiate a rulemaking proceeding to identify and address potentially outdated technical rules governing cellular service.[4] Therefore, in this *Notice*, we seek comment on whether to modify or eliminate the following rules:

- General cellular service requirements and limitations (Section 22.901).
- The Advanced Mobile Phone Service (AMPS) analog cellular compatibility standard (Sections 22.901 and 22.933).
- Manufacturing design requirements governing the security of electronic serial numbers (ESNs) in cellular telephones (Section 22.919).
- Cellular channelization rules (Section 22.905).
- Cellular analog modulation requirements and out-of-band emission limitations (Sections 22.915 and 22.917). We also propose greater flexibility in our out-of-band emission rules for broadband Personal Communications Services (PCS).
- Cellular wave polarization requirement (Section 22.367(a)(4)).
- Rule governing cellular System Identification Numbers (SIDs) (Section 22.941)
- Alternative methods for determining a Cellular Geographic Service Area (CGSA) (Section 22.911).
- Service commencement and construction periods (Section 22.946).

5. We seek comment on potential modification or elimination of certain other Part 22 rules that apply both to cellular and to other CMRS. Specifically, we propose to modify or eliminate Section 22.323, which imposes conditions on the provision of "incidental" services by Public Mobile Services providers.[5] In connection with our review of the incidental services rule, we also consider whether our rules should be

[3] *Biennial Review Staff Report* at ¶ 104.

[4] *Biennial Review Report* at ¶ 67.

[5] The Commission recently removed one of the conditions in § 22.323, which had required licensees to notify the Commission before providing incidental services pursuant to that rule. *See* Amendment of the Commission's Rules to Permit Flexible Service Offerings in the Commercial Mobile Radio Services, FCC 00-246, WT Docket No. 96-6, *Second Report and Order and Order on Reconsideration*, 15 FCC Rcd. 14,680 (rel. July 20, 2000) (*CMRS Flexibility Second Report and Order and Order on Reconsideration*).

amended to facilitate more flexible use of spectrum licensed to CMRS providers. In particular, we address the possibility of Paging and Radiotelephone Service licensees using assigned paging channels to transmit audio programming of interest to a narrow or specialized audience.

6. We also seek comment on our proposal to eliminate or modify certain cellular anti-trafficking rules, specifically Sections 22.937, 22.943, and 22.945. We propose to eliminate or modify these rules intended to prevent speculation, lottery abuse, and trafficking in licenses, as they were adopted during a period when the Commission resolved mutually exclusive applications for initial cellular services through lottery, rather than the current system of resolving such mutually exclusive applications through competitive bidding.

II. BACKGROUND

7. The Commission's Part 22 rules regulating cellular telephone service were largely adopted in the early 1980s when the service was initiated.[6] At the time these rules were adopted, the two prospective cellular carriers in each market (one of which would be affiliated with the incumbent LEC in each market) were anticipated to be the only facilities-based providers of mobile telephony, thus creating a duopoly market for this service.[7] One of our earliest goals for the cellular service was that of nationwide technological compatibility of equipment, so that mobile telephone subscribers to a cellular system in one part of the country would be able to use their existing terminal equipment while "roaming" -- *i.e.*, using a different cellular system in another part of the country.[8] To ensure technical uniformity in the deployment of cellular service, the Commission adopted detailed technical requirements for the provision of analog cellular service. Mandated technical standards also facilitated competition by eliminating the

[6] *See* 47 C.F.R. § 22.900 *et seq.* The Cellular Radiotelephone Service initially was titled the Domestic Public Cellular Radio Telecommunications Service. *See* Revision of Part 22 of the Commission's Rules Governing the Public Mobile Services, CC Docket No. 92-115, *Report and Order*, 9 FCC Rcd 6513, 6538 (1994) (changing name) (hereinafter *Part 22 Rewrite*).

[7] The Commission initially decided to license only one cellular carrier in any given area but later reconsidered and modified its initial decision. *See* An Inquiry into the Use of the Bands 825-845 MHz and 870-890 MHz for Cellular Communications Systems, CC Docket No. 79-318, 86 FCC 2d 469, 482 (1981).

[8] *See* An Inquiry Relative to the Future Use of the Frequency Band 806-960 MHz; and Amendment of Parts 2, 18, 21, 73, 74, 89, 91, and 93 of the Rules Relative to Operations in the Land Mobile Service Between 806 and 960 MHz, Docket No. 18262, *Second Report and Order*, 46 FCC 2d 752, 801 Appendix C, III(f) (1974); *Memorandum Opinion and Order*, 51 FCC 2d 945, 1009 Appendix F, IV(f) (1975); *see also* An Inquiry Into the Use of the Bands 825-845 MHz and 870-890 MHz for Cellular Communications Systems; and Amendment of Parts 2 and 22 of the Commission's Rules Relative to Cellular Communications Systems, 78 FCC 2d 984, 1002 at ¶¶ 52-63 (1980).

need for cellular mobile telephone users to acquire a different type of terminal equipment in order to switch between the two competing carriers in their home market area.[9]

8. In addition to setting forth technical requirements for analog cellular service, the Commission also regulated the provision of "incidental" services by cellular and other Part 22 service providers.[10] The incidental services rule allowed Part 22 licensees to provide "incidental" telecommunications services other than the primary service for which they were licensed, but only if such services were directly related to that primary service. If the primary service were mobile telephone service, for example, such incidental services could include telephone answering, alerting, dialing, and directory assistance. In addition, the rule prohibited cross-subsidization of the incidental service, thereby protecting primary service subscribers from impaired service or higher costs.

9. In addition, those initial cellular licenses not granted to incumbent LECs were awarded primarily by lottery, which caused the Commission to adopt regulations to prevent speculation and trafficking in licenses. The cellular anti-trafficking rules, which include Sections 22.937, 22.943 and 22.945, require an applicant for a new cellular system to make a demonstration of financial qualification at the time of application filing, limit certain assignments and transfers of cellular authorizations, and prohibit parties from having any direct or indirect interest in more than one application for authority to operate a new cellular system in the same cellular market. These rules were adopted during a period when the Commission resolved mutually exclusive applications through lottery. Since that time, however, the Commission has ceased to use lotteries and now resolves mutually exclusive applications for initial cellular licenses through competitive bidding.

III. DISCUSSION

10. Most of our existing rules for cellular service have now been in force for nearly two decades. During that time, however, the technologies used by carriers to provide cellular service have changed radically. Newer technology has allowed cellular service providers to increase the capacity of their systems; to offer better quality service, advanced calling features, enhanced reliability and privacy; and to compete increasingly with the wireline telephone network. In addition, PCS and Specialized Mobile Radio (SMR) providers have entered the mobile telephony market, significantly changing the competitive landscape. We have also replaced the lottery process with licensing by auction.

[9] Early cellular terminal equipment was very expensive; consequently, having to change equipment in order to switch to a competing carrier would have been cost-prohibitive. Today, cellular telephones are much less expensive, and the equipment cost is often subsidized by the carrier.

[10] 47 C.F.R. § 22.323.

11. We have taken some steps to accommodate these developments. In general, we have allowed the introduction of new digital cellular system technologies through rule making or waiver proceedings that have established exceptions to our original cellular technical rules.[11] Moreover, unlike our approach to analog cellular technology, we did not promulgate detailed technical standards for digital cellular telephones.[12] Similarly, we have not imposed technical standards on PCS and SMR systems. In those more recent proceedings, however, we have not re-examined our original cellular rules to determine whether they remain relevant and appropriate in light of advancing technology and current competitive conditions. As a result, our cellular service rules currently regulate the earliest form of cellular more closely than the more complex and advanced digital services that have followed.

12. It is time to re-examine our original cellular service rules, as well as certain other Part 22 rules that date back to the "cellular duopoly" era. As discussed in greater detail below, we tentatively conclude that many of these rules are no longer necessary, and that some of them may in fact be counterproductive. Therefore, we initiate this proceeding to review these rules and consider which of them should be eliminated or modified as a result of competitive or technological developments. We note that while we focus our inquiry in this NPRM on specific rules, we also invite comment on whether we should modify any additional provisions of our Part 22 rules.

A. General Cellular Rules: Cellular Service Requirements and Limitations

13. Section 22.901 of the Commission's rules, entitled "Service requirements and limitations," sets forth various general cellular service requirements. Though the rule has been amended several times since its initial adoption, it appears to remain outdated in several respects. First, the rule is drafted as though the principal technology used for cellular service is analog technology;[13] digital technology, clearly the state-of-the-art technology in use today, is not referred to explicitly in the rule and falls within the rule's classification of "alternative technologies."[14] As a result, we tentatively conclude that the rule should be revised to avoid characterization of particular technologies as primary or alternative.[15] Specifically, we propose deleting the current Section 22.901(d), which addresses alternative cellular technologies, and adding the following language to the

[11] *See* Amendment of Parts 2 and 22 of the Commission's Rules to Permit Liberalization of Technology and Auxiliary Service Offerings in the Domestic Public Cellular Radio Telecommunications Service, GEN. Docket No. 87-390, *Report and Order*, 3 FCC Rcd 7033 (1988).

[12] *Id.* at ¶ 16.

[13] Proposed changes in rules referencing the Commission's mandated analog technology compatibility standard, Analog Mobile Phone Service (AMPS), will be discussed in greater detail *infra* ¶ 19 *et seq*.

[14] 47 C.F.R. § 22.901(d).

[15] While we tentatively conclude that the rule should no longer imply that any technology is primary and others are "alternative," we defer judgment, in light of the issues discussed *infra* Section III.B.1., as to whether the Commission should retain the analog compatibility standard.

introductory paragraph of the rule: "In providing cellular services, each cellular system may incorporate any technology that meets all applicable technical requirements in this part."[16] We seek comment on this proposed change.

14. Second, Section 22.901(a) of the rule currently requires that cellular licensees provide subscribers with information regarding the service area of the cellular provider.[17] This requirement is not placed on other providers of CMRS services, including, in particular, PCS service providers. Even so, these other providers typically give customers service-area-related information. We seek comment on whether there is any material difference between the service-area-related information provided by cellular providers in comparison with other providers of CMRS services. We also seek comment on whether, in light of the current level of competition in the provision of CMRS services, such a requirement is still necessary to ensure that consumers have access to service-area-related information.

15. Third, currently Section 22.901(b) requires the cellular licensee to notify the Commission in the event that a subscriber's request for service is denied due to lack of cellular system capacity.[18] We note first that the rule as currently drafted does not provide any mechanism for ameliorating any instance of a lack of system capacity. Moreover, given the current level of competition, consumers who are denied service by a particular provider due to lack of capacity will be very likely to have other service options. Thus, it appears that this rule may impose a regulatory reporting burden on cellular service providers without countervailing benefits. Therefore, we seek comment on deleting Section 22.901(b).

16. Fourth, the first sentence of the introductory paragraph in Section 22.901 of the Commission's rules provides as follows: "Cellular system licensees must provide cellular mobile radiotelephone service upon request to all cellular subscribers in *good standing* . . . ."[19] We propose deleting this language. We note that no comparable requirements are placed on other CMRS services. Moreover, cellular service providers will continue to be required to comply with Sections 201 and 202 of Title II of the Act, which apply to all common carriers.[20] Those sections require cellular carriers, like all common carriers, to provide service on reasonable request, to have charges, practices, classifications, and regulations that are just and reasonable, and to avoid unjust or

[16] *See* Appendix A for full text of the rule changes proposed in this *Notice*.

[17] Section 22.901(a) provides as follows: "*Service area information*. Licensees must inform prospective subscribers of the area in which reliable service can be expected." 47 C.F.R. § 22.901(a).

[18] Section 22.901(b) provides as follows: "Lack of capacity. If a licensee refuses a request for cellular service because of a lack of system capacity, it must report that fact to the FCC in writing, explaining how it plans to increase capacity." 47 C.F.R. § 22.901(b).

[19] 47 C.F.R. § 22.901 (emphasis added).

[20] 47 U.S.C. §§ 201 & 202.

unreasonable discrimination in their charges, practices, classifications, regulations, facilities, or services. We seek comment on this proposed change.

17. Fifth, the existing introductory paragraph to Section 22.901 provides that a cellular system may terminate service when a subscriber "operates a cellular telephone in an airborne aircraft."[21] We propose to delete this specific reference because it appears to be both unnecessary and potentially confusing, to the extent that it could be read to imply that a cellular provider would not have the right to terminate service unless our rules provided such right explicitly and also because, by addressing only one ground for service termination, it could imply that a cellular provider would not be able to terminate service for other violations of Commission rules.[22] The Commission has previously made clear that a Part 22 provider may refuse or terminate service in the event that a subscriber operates a telephone in violation of the Commission's rules.[23] Thus, an express rule allowing a cellular provider to refuse or terminate service is unnecessary. Indeed, there is no equivalent rule for either PCS or SMR service. We note that deleting this termination provision of Section 22.901 would in no way affect or change any otherwise applicable rights or obligations of a cellular licensee. We therefore seek comment on this proposal. Alternatively, if commenters believe that an express termination rule is necessary, we seek comment on whether the existing provision, which addresses only unlawful operation of a cellular telephone in an aircraft, should be broadened to allow service termination for violation of any Commission rule. That is, a cellular system licensee may terminate service when a subscriber or other customer "operates a cellular telephone in violation of *any* applicable rule . . . ."

B. Cellular Technical Rules

1. Analog Cellular Compatibility Standard

18. Background. When the Commission established cellular service in 1981, it required all cellular carriers to design their systems in compliance with the then-existing industry compatibility standard for analog systems, commonly known as Advanced Mobile Phone Service (AMPS). The then-existing AMPS specifications were referenced and incorporated in the April 1981 version of Office of Engineering and Technology Bulletin No. 53 (OET 53). OET 53, which is still in effect, contains specifications for

[21] 47 C.F.R. § 22.901.

[22] We note that language clarifying a carrier's right to deny service to a customer who violates Commission rules may have been helpful in the context of an express requirement to serve subscribers in good standing. As discussed above, however, we are proposing to delete this express service requirement.

[23] *See* Amendment of Sections of Part 21 (now Part 22) of the Commission's Rules to Modify Individual Licensing Procedures in the Domestic Public Radio Services (now Public Mobile Radio Services), CC Docket No. 79-259, *Report and Order*, 77 F.C.C.2d 84, 86, ¶ 8 (1980) ("If a subscriber fails to meet any of the responsibilities discussed above [including compliance with the Commission's rules], the carrier may refuse or suspend service until the subscriber has corrected the deficiency in question.").

technical operational parameters and detailed descriptions of call processing algorithms and protocols to be used by analog cellular systems.[24]

19. Originally, all cellular carriers were required to provide service exclusively in accordance with the technical specifications of OET 53. Cellular carriers were not allowed to provide analog service that did not comply with OET 53, or to provide mobile voice services using any other technology. In addition to restrictions regarding the type of technology that they could utilize, cellular carriers were significantly limited in the breadth of services that they could offer. For example, cellular carriers were not allowed to provide non-mobile voice services, including fixed wireless and paging services. As cellular technology and the competitive market evolved, however, the Commission allowed cellular carriers flexibility to utilize alternative technologies and provide new types of services. In 1988, the Commission adopted the so-called "cellular flexibility" rule, which allowed cellular carriers to utilize alternative technological platforms for cellular service, provided that they continued to provide compatibility with AMPS, as defined in OET 53, to their analog customer base.[25] This enabled cellular carriers to begin offering digital service to their customers as an alternative to analog service.[26] In 1996, the Commission adopted the *CMRS Flex First Report and Order*, which allowed all CMRS providers, including cellular, to offer fixed service on a co-primary basis with mobile service, thus increasing the breadth of services CMRS carriers could provide.[27]

20. Although cellular carriers have considerably more flexibility now than when the service was established, many of the original rules relating to analog service still apply to cellular service. As noted above, Section 22.901 currently requires a cellular carrier to provide service to any subscriber in good standing within the carrier's Cellular Geographic Service Area (CGSA), including any analog subscribers.[28] This rule applies to both in-market customers and roaming customers that are using technically compatible

[24] *See* An Inquiry Into the Use of the Bands 825-845 MHz and 870-890 MHz for Cellular Communications Systems; and Amendment of Parts 2 and 22 of the Commission's Rules Relative to Cellular Communications Systems, CC Docket No. 79-318, *Report and Order*, 86 FCC 2d 469, 1508 at ¶¶ 92-93. (1981). The OET 53 specifications were largely based on an Electronics Industries Association working paper describing technical specifications of the two original developmental cellular systems.

[25] Amendment of Parts 2 and 22 of the Commission's Rules to Permit Liberalization of Technology and Auxiliary Service Offerings in the Domestic Public Cellular Radio Telecommunications Service, 3 FCC Rcd 7033 (1988), *Report and Order*, GEN. Docket No. 87-390 (1988).

[26] *Id.* Another type of analog cellular service, Narrowband Analog Mobile Phone Service (N-AMPS), is in use in some cellular systems. Although not a digital service, N-AMPS is considered an alternative technology pursuant to Section 22.901(d) of the Commission's rules, and as such it is not subject to the requirements applicable to AMPS.

[27] *See* Amendment of the Commission's Rules to Permit Flexible Service Offerings in the Commercial Mobile Radio Services, WT Docket No. 96-6, *First Report and Order and Further Notice of Proposed Rulemaking*, 11 FCC Rcd 8965 (1996) (*CMRS Flex First Report and Order*).

[28] 47 C.F.R. § 22.901.

equipment.[29] The current Section 22.901(d) further provides that a cellular carrier who provides mobile service must make it available to subscribers whose mobile equipment conforms to the analog compatibility standard referenced in OET 53. This effectively requires the carrier to continue to provide AMPS-type analog service so long as the carrier continues to have analog customers or roamers on its system.[30] Furthermore, Section 22.933 provides that the technical requirements for analog service continue to be governed by the OET 53 standard in effect since 1981.[31]

21. We have taken a less regulatory approach to technological compatibility in services established since cellular. When we established PCS, we decided that each PCS licensee would be allowed to determine what type of service to provide.[32] In accordance with this flexible use policy, we did not adopt any rules that impose technical standards for PCS, as we had previously done in cellular, but permitted licensees to implement technologies of their own choice.[33] Thus far, most broadband PCS licensees have chosen to establish cellular-like public mobile telephone services that compete directly with cellular service. As could be anticipated, some of these new broadband PCS services are technically incompatible with other PCS systems. Yet, even in the absence of Commission rules requiring technological compatibility, most broadband PCS carriers are establishing systems that offer nationwide service.[34] They have done so by building nationwide systems (*i.e.*, voluntarily using compatible technology), by making roaming arrangements with other carriers that are using compatible technology, or by providing dual and triple mode telephones (*i.e.*, terminals capable of operating on two or more technically dissimilar systems).[35]

22. Similarly, international industry standards groups of the International Telecommunications Union recently adopted a flexible standard for a third generation (3G) of mobile telephone technology, known as "IMT-2000," that will promote global

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[29] *See* Interconnection and Resale Obligations Pertaining to Commercial Mobile Services, CC Docket No. 94-54, *Second Report and Order and Third Notice of Proposed Rulemaking*, 11 FCC Rcd 9462 (1996), *recon.*, FCC 00-251 (rel. Aug. 28, 2000).

[30] *See* 47 C.F.R. § 22.901(d). This provision only applies to cellular carriers who provide mobile services. Thus, a cellular carrier that elected to provide exclusively fixed service, in accordance with the *CMRS Flex First Report and Order*, could avoid this requirement. As a practical matter, however, no cellular carrier has sought to provide fixed service on an exclusive basis.

[31] 47 C.F.R. § 22.933.

[32] PCS licensees may provide any type of mobile or fixed service, excluding a broadcasting service. *See* 47 C.F.R. § 24.3.

[33] The Commission does require, however, that systems provide service to roaming subscribers in cases in which the technology is compatible. *See* 47 C.F.R. § 20.12(c).

[34] Some PCS systems even offer roaming on systems in Europe and other parts of the world.

[35] In the early 1980s, when the cellular technical compatibility rules were adopted, dual-mode or multiple-mode mobile telephones were thought to be prohibitively expensive.

interoperability.[36] Also on the drawing board are "software-defined radios," which are terminal units that can be simply reprogrammed to operate with many current and future modulation schemes and call processing algorithms. These developments highlight the trend away from single-technology compatibility standards and towards technological solutions that seek other ways to provide compatibility while embracing multiple technologies.

23. Discussion. In light of these factors, we seek comment on whether we should modify or eliminate the rules governing the provision of analog service by cellular systems pursuant to particular technological specifications. The AMPS standard that is referenced and incorporated in OET 53 may well have helped in the early years of cellular to facilitate competition between the two competing cellular carriers in any given area. Today, however, the competitive market for mobile telephone service often includes not only the two cellular carriers but several PCS and SMR providers as well, who are not subject to any Commission-mandated technological standards. As a result, a panoply of mobile telephone technologies and services are now available or under development. At the same time, although many subscribers are benefiting from the increased availability of a wide variety of mobile services, we note that some subscribers may not have readily available and accessible economic or technological alternatives to analog for mobile services. Accordingly, we are mindful that the Commission must consider the ramifications of eliminating the analog compatibility standard for these subscribers. In this context, we wish to reexamine whether the Commission's analog service compatibility requirement remains necessary or useful to facilitate competition or to ensure the availability of valuable service to all consumers. If we decide to retain some form of analog compatibility requirement, we further seek comment on how the requirement should be modified to reflect changes in technology and in the relevant industry standard.

24. We seek comment on whether the proliferation of competitive mobile telephone services suggests that market forces may now provide a sufficient incentive for cellular providers to utilize compatible and/or interoperable technologies to meet consumer demand for nationwide operating capability. As noted above, PCS and other CMRS licensees offer service that is compatible nationwide, and many consumers need and have come to expect this capability, notwithstanding the absence of Commission-mandated technical specifications in those services. In addition, the declining cost to the subscriber of terminal equipment, and discounts offered by many carriers to new subscribers on such equipment, appear to have reduced the disincentive for consumers to switch between providers, even when the existing equipment must be abandoned because

[36] *See* Press Release ITU/99-4, dated March 25, 1999, "ITU approves key characteristics for the radio interfaces of third generation mobile systems," which may be viewed at the following internet site: http://www.itu.int/newsroom/press/releases/1999/99-04.html. *See also* Press Release ITU/99-22, dated November 5, 1999, "IMT-2000 Radio Interface Specifications Approved in ITU Meeting in Helsinki," which may be viewed at the following internet site: http://www.itu.int/newsroom/press/releases/1999/99-22.html. *See generally* ITU Press Release, dated May 8, 2000, "ITU gives final approval to IMT-2000 radio interface specifications," which may be viewed at the following internet site: http://www.itu.int/newsroom/press/releases/2000/10.html.

the systems use incompatible technologies. Additionally, some providers offer dual or triple-mode mobile telephones that allow the customer to obtain roaming service from other providers who use different technologies. Thus, most customers have an array of options to obtain a mobile telephone service with nationwide interoperability if that is what they need, or to select a perhaps more economical offering providing regional coverage, if that option better satisfies their requirements. We seek comment on whether retaining the cellular analog compatibility standard remains necessary or useful to promote nationwide interoperability in light of these trends.

25. We also seek comment on whether eliminating the mandatory analog compatibility standard could provide public interest benefits by making it easier for cellular carriers to migrate to digital technologies. Specifically, we seek comment on the extent of any spectral efficiencies that could be gained. For example, would eliminating the analog service requirement effectively free up additional spectrum, or is so little of the spectrum being used for analog services that eliminating this requirement would have little impact? To what extent is digital service more spectrum efficient than analog service?

26. We also seek comment on whether eliminating this rule would have any impact on the continued provision of service to existing analog cellular customers. In 1999, there were approximately 41.9 million analog subscribers nationwide.[37] This figure represents a drop from the previous year's figure of 44.1 million analog cellular subscribers.[38] In the *Fifth CMRS Competition Report*, we noted that the overall number of analog cellular subscribers is on a downward trend, as new subscribers increasingly choose digital service over analog, and some cellular carriers seek to migrate current analog subscribers to digital. Nonetheless, in light of the significant remaining base of analog customers, we seek comment on whether eliminating this rule would have deleterious effects on subscribers. If so, should we consider alternatives to outright elimination, such as phasing out the requirement over time?

27. We are also interested in whether deleting the requirement to provide analog service would have any significant consequences for rural consumers, given that they are more likely to subscribe to analog cellular service than other types of consumers.[39] More specifically, we seek comment on the likely treatment by the competitive market of these consumers when they roam.[40] The Commission is currently considering whether it

[37] *Annual Report and Analysis of Competitive Market Conditions With Respect to Commercial Mobile Services*, FCC 00-289, *Fifth Report*, 15 FCC Rcd. 17,660 (rel. Aug. 18, 2000) (*Fifth Annual CMRS Competition Report*).

[38] *Id.*

[39] *Fifth Annual CMRS Competition Report* at Appendix F, Maps 2-5 (digital cellular and PCS coverage maps showing rural consumers less likely to reside in areas with digital coverage).

[40] Roaming "occurs when the subscriber of one CMRS provider utilizes the facilities of another CMRS provider with which the subscriber has no direct pre-existing services or financial relationship . . . ." Automatic and Manual Roaming Obligations Pertaining to Commercial Mobile Radio Services, FCC 00-361, WT Docket 00-193, *Notice of Proposed Rulemaking*, ¶ 2 (rel. Nov. 1, 2000).

should modify the rules that relate to roaming and, in particular, whether it should mandate automatic roaming.[41] We seek comment on the relationship between potential elimination of the analog service compatibility requirement and our roaming rules, particularly with respect to effects on rural consumers.

28. In the same vein, we seek comment on whether Commission-mandated technological compatibility is more critical for regional, or smaller, cellular carriers than for nationwide carriers. We note that nationwide carriers by definition maintain a national footprint for their services, which may obviate the need for technological compatibility while roaming. We seek comment on the effect eliminating the mandatory analog compatibility standard may have on regional carriers, particularly in the roaming context.

29. We also seek comment on the possible impact of eliminating this rule on certain existing programs and services. We note that some charitable organizations collect previously used cellular telephones so that they may in turn be given to the elderly or others exclusively for 911 purposes. Many of these telephones use analog technology. Would changing our current rules affect these charitable programs? Also, we are aware that there are existing applications that employ analog technology that will continue to be necessary. For example, General Motors' "OnStar" automobile assistance system uses analog cellular technology.[42] We seek comment on how our proposed changes will affect OnStar and other existing analog services, and the people who use such services.

30. In particular, we seek comment on the potential effect of eliminating the analog service requirement on people with hearing disabilities. We note that TTY users must use analog technology because digital wireless systems are not currently compatible with TTYs, although digital TTYs are under development.[43] In addition, we are aware that digital technologies are, for the most part, not currently compatible with hearing aid technologies.[44] We will not take any action that would undermine service to persons with disabilities. We note that Section 255 of the Communications Act requires that "[a]

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[41] *Id.* at ¶ 1.

[42] *See* http://www.onstar.com/visitors/html/ao_faq.htm (setting forth General Motors' reasons for employing analog technology in its OnStar system).

[43] Pursuant to the Commission's E-911 rules, service providers must be able to pass TTY calls on wireless systems. Since 1997, the Commission has suspended the enforcement of this rule as it applies to digital wireless carriers, pending industry's implementation of solutions which would allow for compatibility between TTYs and digital systems. *See* Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, FCC 00-436, CC Docket 94-102, *Fourth Report and Order*, ¶¶ 27-8 (rel. Dec. 14, 2000) (establishing June 30, 2002 as the deadline by which digital wireless service providers must transmit 911 calls made with TTY devices).

[44] *See* Letter from the Wireless Access Coalition to Secretary, FCC (dated Oct. 7, 2000) (requesting that the Commission reopen proceedings to consider whether to revoke the exemption of digital mobile telephones from hearing-aid compatibility requirements).

provider of telecommunications service shall ensure that the service is accessible to and usable by individuals with disabilities, if readily achievable."[45] Were we to delete the requirement that cellular carriers provide analog service, this section would still require TTY and hearing aid compatibility, as well as other accessibility features to be incorporated into cellular systems, where readily achievable. We seek comment on whether deleting the analog service requirement would present accessibility problems for people with disabilities, or whether the independent requirements of Section 255 would sufficiently address any such problems.

31. As discussed above, we seek to ensure that eliminating the analog compatibility standard does not adversely affect existing analog subscribers, or groups that are particularly dependent on access to analog-based cellular technology. We are therefore reluctant to eliminate this requirement if doing so will significantly impair the access of these users to wireless telecommunications services. If we ultimately decide to retain some form of analog compatibility standard for cellular service, either on a transitional or a long-term basis, we must address the fact that the version of the AMPS standard that is referenced and incorporated in our rules is seriously out of date. As discussed above, OET 53, which was issued by OET in 1981, incorporates the then-current AMPS standard, and, as a result, reflects the state of the art in cellular technology as it was in the late 1970s. We note that since that time, the AMPS standard has been extensively revised by the Telecommunications Industry Association (TIA) to incorporate advances in technology, changes in algorithms, new features, and anti-fraud countermeasures.[46] However, we have never included any of these TIA revisions in our rules. Moreover, OET 53 is outdated in several other respects as well, because it incorporates references to sections of Part 15 and Part 22 of the Commission's rules that have been recodified or removed.[47] We therefore seek comment, if we do not eliminate the analog service requirement in its entirety, on whether and how we should update our rules.

2. Electronic Serial Number Rule

32. Background. Section 22.919 of the Commission's rules sets forth Electronic Serial Number (ESN)[48] design requirements for manufacturers of cellular telephones.[49]

[45] 47 U.S.C. § 255(c).

[46] The latest revision by the TIA is contained in the standard publication ANSI TIA/EIA-553-A-99 "Mobile Station – Base Station Compatibility Standard" (published November 1, 1999), which is available for purchase from Global Engineering Documents, 15 Inverness East, Englewood, CO 80112.

[47] OET issued a July 1983 revision of Bulletin No. 53. However, this revision was never incorporated into the Commission's rules.

[48] An ESN is a 32 bit binary number that uniquely identifies a cellular mobile transmitter to a cellular system.

[49] Section 22.919 was adopted in 1994 as a part of the Part 22 rewrite and was intended to codify and expand upon the ESN guidelines given in OET 53. See *Part 22 Rewrite*, 9 FCC Rcd at 6525.

More specifically, that section imposes the following requirements. First, each cellular mobile telephone must have a unique factory-set ESN that is not alterable, transferable, removable or otherwise able to be manipulated. Second, each cellular telephone must be designed such that any attempt to remove or tamper with the ESN or its related components will render the transmitter inoperative. Finally, certain physical design and firmware programming requirements must be satisfied. Section 22.919 does not apply to PCS or SMR telephones, and there are no similar rules applicable to those services in Part 24 (PCS) or Part 90 (SMR).

33. Discussion. We seek comments on whether Section 22.919 continues to be necessary in light of developments since the rule was adopted. The sole purpose of the ESN rule was to address the problem of cellular "cloning" fraud[50] that was prevalent in the early 1990s. Codifying into the Code of Federal Regulations the "hardened ESN"[51] design specification in OET 53 was said by cellular industry fraud control experts to be helpful in building a successful legal case when prosecuting fraud perpetrators. Since that time, however, Congress has enacted the Wireless Telephone Protection Act of 1998, which addresses the unauthorized use of access codes for the purpose of fraudulently obtaining telecommunications services.[52] Furthermore, the cellular industry developed new encryption technology to eliminate most cloning fraud by the use of a second, more secure, access protocol generally known as "authentication," in which the key to use authorization is never transmitted over the airwaves and thus is not susceptible of being intercepted by third parties. Other anti-fraud systems and countermeasures include "radio frequency fingerprinting," which measures the exact parameters of the authorized phone to forestall unauthorized use with other, unauthorized equipment, and "call profiling," in which use is monitored for unusual, sudden changes in calling patterns.

34. Because the "hardened ESN" provisions of Section 22.919 require that the ESN host component not be transferable or removable, they by definition preclude the use of "smart card" subscriber identity modules in AMPS-compatible cellular telephones and thus complicate the possible use of such modules in multiple-mode telephones for which one of the modes is AMPS. Smart card subscriber identity modules are postage stamp sized cards containing an embedded electronic chip that is programmed with the subscriber's identification, billing and preference information. Smart cards are largely tamper-proof and are widely used throughout the world in Global Mobile System (GSM) mobile telephone systems. A subscriber can remove his or her smart card from one

[50] "Cloning" a cellular telephone means intentionally altering the internally-stored telephone number (MIN), system identification number (SID) and unique factory-set ESN of a cellular telephone so as to duplicate the MIN, SID and ESN of another cellular telephone. Because the original cellular systems relied solely on these three numbers to identify a particular cellular telephone for access and billing purposes, cloning a cellular telephone created additional telephones that appeared to be the same telephone to these systems. By cloning the cellular telephone of a legitimate subscriber, third parties could use the cloned cellular telephone to make calls that would later be billed to the unsuspecting legitimate subscriber.

[51] The term "hardened ESN" refers to the design requirement that the ESN be made absolutely unalterable (*i.e.*, physically impossible to alter, by any person, for any reason).

[52] *See* 18 U.S.C § 1029(a)(7) (2000).

mobile telephone and insert it into another, making it easy to change from one system to another. One of the main reasons for employing smart card technology is that the subscriber's identity and preferences can be secure from theft or disclosure, yet are easily transferable from one telephone instrument to another. Some parties believe that smart cards now provide better protection from fraudulent tampering than do hardened ESN components.[53]

35. As a general policy, we prefer to allow market forces to determine technical standards wherever possible, and thus we do not adopt rules mandating detailed hardware design requirements for telecommunications equipment, except where doing so is necessary to achieve a specific public interest goal. Although mandating design requirements is sometimes necessary to ensure interoperability or compatibility or to provide a degree of certainty for manufacturers and consumers in cases where the market has failed to settle on a standard, doing so also entails a risk of freezing technological development and discouraging further innovation. In light of this principle and the changed circumstances we have outlined above, we need to consider whether Section 22.919 should be retained.

36. We tentatively conclude that the original reasons for establishing the hardened ESN design requirements in our rules are no longer compelling in light of changes in federal law and the widespread deployment of advanced fraud control technologies. Furthermore, there is some evidence that the hardened ESN requirements may actually be counterproductive by deterring the incorporation of smart-card technology in AMPS-compatible telephones. We also believe it is significant that no similar requirement applies to PCS or SMR service. Accordingly, we propose to remove Section 22.919 from our rules, and we request comment generally on this proposal. We also seek comment as to whether it is still necessary or helpful to have a Commission rule addressing wireless fraud and, if so, whether it would be desirable to add such a rule to Part 20 (where it would be applicable to all CMRS, not just the Cellular Radiotelephone Service) stating explicitly that tampering with telecommunications equipment in order to obtain unauthorized access to telecommunications services is prohibited by federal law.

3. Channelization Requirements

37. Background. Section 22.905 identifies the part of the electromagnetic spectrum that is allocated to the Cellular Radiotelephone Service and divides it into two blocks, labeled A and B. It also sets forth a channelization plan that divides each block into 416 paired 30 kHz channels and designates 21 of these paired channels in each block as control channels.[54] This channelization plan is the basic scheme for the original compatible analog cellular technology. Alternative technologies, including the two

[53] *See* http://www.gemplus.com/app/wireless/role/index.htm for a leading smart card manufacturer's views on the security advantages of smart cards.

[54] This channelization plan is referenced in OET 53, Section 2.1.1.1, by its former codification, section 22.902 of the Commission's rules. The current rule, section 22.905, contains a typographical error: in the Block B control channel pairs, last line, it should read "835.620" instead of "835.920".

principal digital technologies that many cellular licensees have deployed, are exempt from this channelization plan rule.[55]

38. Discussion. We tentatively conclude that it is unnecessary to retain in our rules the channelization plan used by the original analog cellular technology. Because the older analog technology to which the channelization plan applies is well established nationwide, removing the plan from the rules would not pose any risk of decreased cellular technical compatibility. As we stated above, market forces alone should be sufficient to cause CMRS carriers to continue to deploy systems that provide nationwide operating capability. Accordingly, we propose to amend Section 22.905 by removing the channelization plan and to reword the remainder of that section such that it specifies only which portions of the electromagnetic spectrum are allocated to the Cellular Radiotelephone Service and what frequency ranges within that allocation make up the two initial blocks (A and B). We further propose to remove the phrase "the channeling requirements of Section 22.905" from Section 22.901(d)(2), as those requirements would no longer exist. We seek comment on these proposals.

4. Modulation Requirements and In-band Emissions Limitations

39. Background. Section 22.915 of our rules requires that cellular systems be capable of providing service using the modulation types described in the OET 53 analog compatibility specification. Section 22.915 also provides technical specifications for (1) the performance of audio filter and deviation limiter circuitry in analog cellular telephones and (2) adjustment of the modulation levels in analog cellular telephones. Section 22.917 of our rules prescribes emission masks limiting both in-band and out-of-band radio frequency emissions.[56] Paragraph (a) of Section 22.917 provides that analog modulated emissions may be transmitted only on the communication channels (channels other than the control channels identified in the channelization plan discussed in the preceding section of this notice). As with the channelization rule, alternative technologies, including the two principal digital technologies that many cellular licensees use, are exempted from these two rules, with the exception of out-of-band emission limits.[57]

40. Discussion. In developing the rules governing PCS and other similar services that are licensed by spectrum blocks, we determined that it is not necessary to select a

[55] *See* 47 C.F.R. § 22.901(d)(2). Of the digital technologies commonly used to provide cellular telephone service, the time-division multiple access (TDMA) technology uses the same spacing and channel center frequencies as are specified in section 22.905 for the original analog technology, while the code-division multiple access (CDMA) technology uses an entirely different channelization plan.

[56] Manufacturers of cellular telephone transmission equipment conforming to the original analog technology may elect to comply with the alternative in-band emission mask set forth in paragraph (c) of section 22.917 in lieu of complying with both the section 22.915 audio filter design requirements and the matching in-band emission mask in paragraph (b) of section 22.917.

[57] *See* 47 C.F.R. § 22.901(d)(2).

particular technology to be used or to specify in our rules the technical details, such as modulation parameters, of any particular technology. Instead, we have allowed licensees considerable flexibility to choose any technology that enables them to operate efficiently, by adopting only minimal rules limiting out-of-band radio frequency emissions.

41. Therefore, consistent with our policy concerning PCS and other similar services and our proposal *supra* to eliminate the OET 53 analog cellular compatibility specification, we propose to remove, in the introductory paragraph of Section 22.915, the requirement that cellular systems have the capability to provide service using the modulation types described in OET 53. We also propose to remove all rules governing audio filter and deviation limiter performance, modulation levels, and in-band radio frequency emission limits. Because we are proposing to remove the channelization requirements, including the designation of control and communication channels, we also propose to remove the rule requiring that analog emissions be transmitted only on the communication channels.

42. We do not propose to remove the out-of-band emission limit contained in Section 22.917, but we invite comment as to how this out-of-band limit should be defined in our rules in order to effectively provide an adequate measure of interference protection to other licensees and services, while allowing licensees the flexibility to establish a different limit where appropriate. In particular, should licensees be allowed to operate transmitters on frequencies closer to the edge of their authorized spectrum than full compliance with our out-of-band emission limits would normally permit, provided that all of the potentially affected parties (*i.e.*, adjacent spectrum licensees) contractually agree to the practice?[58] Our Wireless Communications Service (WCS) rules provide this type of flexibility.[59] We believe that cellular and broadband PCS licensees would benefit from the same flexibility. Accordingly, we propose to harmonize the wording and provisions of out-of-band emission limit rules applicable to the Cellular Radiotelephone Service and broadband PCS with those applicable to WCS.[60] Finally, in recent proceedings where services have been established with flexible technology and channelization, the Commission has adopted detailed requirements governing measurement and equipment settings and procedures to be used in certifying transmitting equipment for use in those services pursuant to Part 2, Subpart J of our rules.[61] We seek comment as to whether similarly detailed rules will be necessary if we adopt more

[58] Last year, certain broadband PCS licensees and equipment manufacturers asked the Wireless Telecommunications Bureau to interpret the broadband PCS emission limit rule as being inapplicable in the case where adjacent spectrum is separately licensed to the same entity, or a cooperating entity. In response, the Bureau granted relief in the form of a waiver. *See Omnipoint Request for Broadband Declaratory Ruling or Waiver Concerning PCS Emission Limits Rule Section 24.238*, DA 00-1767, 15 FCC Rcd 13422 (2000).

[59] *See* 47 C.F.R. § 27.53(a)(10).

[60] *See* proposed rules §§ 22.917 and 24.238 in Appendix A.

[61] *See, e.g.*, 47 C.F.R. § 27.53(d).

flexible emission limit rules for the cellular service and PCS, or whether a more general rule is adequate.[62] We seek comment on these closely related issues.

5. Wave Polarization Requirement

43. Background. Section 22.367(a)(4) of the Commission's rules provides that electromagnetic waves radiated by base, mobile, and auxiliary test transmitters in the Cellular Radiotelephone Service must be vertically polarized. In addition to its role in promoting technical compatibility, this rule was intended to reduce the likelihood of interference from cellular transmitters to broadcast television (TV) reception on the upper UHF TV channels.[63]

44. On September 25, 1998, Andrew Corporation (Andrew) filed a petition for rulemaking requesting that we amend Section 22.367 to eliminate the requirement that cellular base stations radiate only vertically polarized radio waves.[64] The Wireless Telecommunications Bureau (WTB) denied this petition, stating that, although it appeared that the petition may have had some merit, the public interest would be better served by considering this matter along with other potential Part 22 rule amendments in connection with the year 2000 Biennial Review.[65]

45. In its petition, Andrew argued that adoption of the proposed rule change would make the use of polarization diversity antenna arrays[66] for base stations in the cellular service more economical and result in smaller antenna arrays, by eliminating the need for either a third component antenna or additional associated equipment.[67] Andrew noted that the Commission had reallocated the adjacent TV Channels 60-69 for land

[62] *See* proposed rule paragraphs Sections 22.917(b) and 24.238(b) in Appendix A.

[63] *See Part 22 Rewrite*, 9 FCC Rcd at 6558. We note that alternative services are exempt from wave polarization requirements pursuant to § 22.901(d)(2).

[64] Andrew Corporation, Petition for Rulemaking, filed September 18, 1998 (Andrew Petition). The Andrew Petition was placed on public notice. *See* Public Notice, Report No. 2304 (rel. Nov. 3, 1998).

[65] *See* Andrew Corporation, DA 00-455 (rel. March 1, 2000).

[66] A polarization diversity antenna array comprises two receiving antennas positioned orthogonally at angles plus and minus 45 degrees to vertical. In urban, high multipath environments, polarization diversity antenna arrays can substitute for the larger space diversity antenna arrays commonly used for cellular base stations. The smaller size of the polarization diversity antenna array reduces the visual impact of the cellular base station tower, which may assist the carrier when seeking local zoning approval. Andrew also ascribed other technical and operational advantages to polarization diversity antenna arrays. *See* Andrew Petition at 4, 5.

[67] Polarization diversity antenna arrays currently can be used at cellular base stations. To comply with the current rule, however, carriers transmitting compatible analog transmissions must additionally use either a third antenna producing vertically polarized waves (and a third transmission line) or a power splitter and two duplexors to feed equal and properly phased transmitting power to each of the two antennas in the array. If the rule is amended as we propose, carriers could transmit using one of the two antennas in the array, resulting in a slant-polarized wave rather than a vertically-polarized wave.

mobile use and questioned whether the wave polarization rule is effective in protecting television reception in any event. Additionally, Andrew asserted that the scattering environment in which today's small portable cellular telephones operate tends to de-polarize their signals to such an extent that maintaining the same wave polarization for all cellular base stations typically provides no interoperability benefit. In view of these changed circumstances, Andrew argued, the vertical wave polarization rule does not serve or is no longer needed to serve the purposes for which it was adopted.[68]

46. In comments supporting the Andrew Petition, AirTouch Communications, Inc. (AirTouch) noted that PCS and SMR operators are not subject to a wave polarization rule. In light of the Commission's commitment to regulatory symmetry, AirTouch argued, cellular operators should no longer be subject to the wave polarization requirement either.[69] GTE Service Corporation (GTE), in its comments, agreed that vertical polarization is not needed to reduce the probability of interference. GTE also suggested that eliminating the wave polarization requirement could reduce carrier antenna costs, allow efficient use of antenna sites, foster more aesthetically pleasing antenna sites, and promote regulatory parity.[70]

47. Discussion. We find that the reasons given by Andrew to modify the wave polarization rule appear to be persuasive, and we tentatively conclude that we should relax this portion of the rule with regard to all cellular stations.[71] Accordingly we propose to amend Section 22.367 of our rules to provide that cellular stations are not limited as to wave polarization.[72] We invite additional comments on this proposal. We seek comment as to what, if any, interference or other adverse effects might be caused to any fixed or mobile telecommunications or broadcast services operating in the cellular service spectrum or adjacent spectrum, which currently use horizontal wave polarization and rely on compliance with Section 22.367 to provide cross-polarization isolation.

6. Assignment of System Identification Numbers

48. Background. Section 22.941 of the Commission's rules sets forth the procedure by which the Commission assigns system identification numbers (SIDs) to systems in the Cellular Radiotelephone Service. SIDs are used by cellular systems to identify the home system of a cellular telephone and by cellular telephones to determine

[68] Andrew Petition at 8.

[69] Comments of AirTouch, filed December 3, 1998, at 4.

[70] Comments of GTE, filed December 3, 1998, at 2.

[71] Although Andrew requested relief only for cellular base stations, we believe that the rule should be amended for cellular mobile and auxiliary test stations as well.

[72] We further propose to eliminate the reference to section 22.367 contained in section 22.901(d)(2), which would be rendered unnecessary by the proposed amendment to section 22.367.

their roaming status.[73] SIDs are also used by cellular systems as part of the mobile identification process for billing purposes. SIDs are treated by the Commission as a term of the cellular system license. They are first assigned to cellular systems by the Commission during initial application processing[74] and they may be altered subsequently as a minor modification of station license, by notification to the Commission.[75] There are no Commission rules requiring or providing for the assignment of system identification numbers for PCS, SMR or any other CMRS.

49. The Commission began assigning cellular SIDs in the early 1980s at the request of the Electronics Industry Association (EIA). Even though SIDs were made a term of cellular licenses, the Commission accepted no-fee informal (letter) applications to modify SID assignments throughout the 1980s. Under that system, a licensee had to wait until the Commission approved its SID modification request and issued a replacement license bearing the change before using the modified SID. In 1994, the Commission adopted the SID assignment rules now used, under which cellular licensees may begin using other SIDs (subject to consent of any affected licensees) without first seeking and obtaining Commission approval, but are required to notify the Commission of SID modifications after the fact.[76]

50. Discussion. We believe that it is unnecessary to retain our current cellular SID rules. The assignment of cellular SIDs is not required by statute, and there is no public policy reason that SIDs must be a term of Cellular Radiotelephone Service authorizations.[77] When we proposed the current SID rules in 1992, we also sought comment on the possibility of a private sector entity coordinating the use of SIDs outside of the Commission licensing process.[78] Unfortunately, no such entity came forward at that time, and so the Commission adopted the proposed rules and has continued to assign cellular SIDs and accept notifications of SID changes. Recently however, the Cellular Telecommunications and Internet Association suggested, in comments about the Commission's Year 2000 Biennial Review Report, that the Commission should turn the

[73] In the introductory paragraph of section 22.941, one sentence reads "SIDs are transmitted by cellular systems so that cellular mobile stations can determine whether the system through which they are communicating is a system to which they subscribe, or whether they are considered by the system to be roamers." This is, however, somewhat of an oversimplification of the situation with current cellular systems. Many systems transmit two or more different SIDs in order to treat subscribers of certain other systems as non-roamers.

[74] *See* 47 C.F.R. §§ 22.941(a), (c).

[75] *See* 47 C.F.R. § 22.941(b).

[76] *See Part 22 Rewrite*, Appendix A, 9 FCC Rcd at 6574.

[77] *See Revision of Part 22 of the Commission's Rules Governing the Public Mobile Services, Notice of Proposed Rulemaking, CC Docket No. 92-115*, 7 FCC Rcd 3658, 3673-74 (1992) (hereinafter *Part 22 Rewrite NPRM*); *Part 22 Rewrite*, 9 FCC Rcd at 6574.

[78] *See Part 22 Rewrite NPRM*, Appendix A, 7 FCC Rcd at 3674.

function of coordinating Cellular Radiotelephone Service SIDs over to its subsidiary CIBERNET, which already performs this function for PCS.

51. We propose to no longer include SIDs as a term of cellular licenses and to amend Section 22.941 of our rules to remove the notification requirement. We plan to retain the requirement that a cellular system may transmit another system's SID only if that system consents to such use. We seek comment on these proposals, and we again invite proposals under which SID coordination functions would be carried out by an industry organization such as CIBERNET, rather than by the Commission.[79]

7. Determination of Cellular Geographic Service Area

52. Section 22.911(a) of our rules sets forth a standardized method for determining the CGSA of a cellular system.[80] The standard method uses a general mathematical formula to calculate distances along the cardinal radials[81] to the service area boundary (SAB) of each cell in the system.[82]

53. Paragraph (b) of Section 22.911 provides, however, that any cellular licensee may apply for a modification of its licensed CGSA if it believes that the standard method produces a CGSA that is substantially different from the actual coverage of its system. When preparing to file an application requesting such a modification, the licensee must employ alternative methods (actual measurements, more accurate prediction models or a combination of the two) to determine the location of the median 32 dBμV/m field strength contour and the distances along cardinal radials to that contour. In describing how these distances to the median 32 dBμV/m contours must be used to determine the CGSA, paragraphs (b)(1) and (b)(3) of Section 22.911 use the term SAB in several places. In our experience, this occasionally leads licensees erroneously to believe that they may employ the alternative methods to determine an SAB, as opposed to the CGSA, and then to use that erroneously-determined SAB in connection with various other rules that govern SAB extensions (Section 22.912, for example) or the traffic capture protection rule (Section 22.911(d)(2)).

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[79] We note, for example, that in September 1997, the Commission discontinued assigning cellular manufacturer's codes, a portion of the ESN; this function is now performed by the Telecommunications Industry Association. *See* http://www.tiaonline.org/pubs/press_releases/1997/97-71.cfm. *See also* http://www.cibernet.com/.

[80] Within its CGSA, a cellular system is entitled to protection from co-channel and first-adjacent channel interference and from capture of subscriber traffic by adjacent systems on the same channel block. *See* 47 C.F.R. § 22.912(d).

[81] Cardinal radials are eight imaginary straight lines extending radially on the ground from an antenna location, defined according to specified azimuths. *See id.* at § 22.99 (defining cardinal radials).

[82] An SAB measures the service area of a particular cell site and is a component of the CGSA, which is a composite of the service areas of all of the cells in the particular cellular system. It also is used to evaluate extensions and traffic capture. *See id.* at §§ 22.911-12.

54. We wish to clarify that the SAB of a cell and the 32 dBμV/m contour that is used when preparing an alternative CGSA determination are not the same. The SAB is the boundary calculated using the mathematical formulas and methods set forth in paragraph (a) of Section 22.911, regardless of the actual median field strength along this boundary (as measured or predicted with more elaborate methodology). On the other hand, the 32 dBμV/m contour is the locus of points where the predicted or measured median field strength finally drops to 32 dBμV/m, regardless of how far these points may actually be from the cell site. We are proposing, therefore, to reword portions of paragraphs (b)(1) and (b)(3) of Section 22.911 to eliminate use of the term SAB in those paragraphs and thereby eliminate the confusion that sometimes arises.

8. Service Commencement and Construction Periods

55. Section 22.946 of the Commission's rules, entitled "Service commencement and construction periods for cellular systems," sets forth timing requirements relating to the deployment of new cellular systems. This section was amended in the Commission's Universal Licensing System proceeding.[83] There was an apparent oversight in the ULS proceeding and, as a result, the table referred to in this section, entitled "Commencement of Service," was inadvertently deleted when this rule was amended. Because channel blocks have been authorized in all of the top 90 cellular markets, one of the three entries in the table, which referred to the construction requirements for the first cellular system authorized in each channel block in these markets, is obsolete. Thus, we use this opportunity to propose amending Section 22.946 to reflect the correct and updated information. We also use this opportunity to propose deleting the final phrase of Section 22.946(b), which prohibits cellular system licensees from "intentionally serv[ing] only roamer stations."[84] Historically, this prohibition was necessary because cellular markets were duopolistic and, as a result, if one of the two carriers served only roamers, then there would be no competition for cellular service to subscribers. In the currently competitive market for cellular services, we believe that this prohibition is no longer needed. We seek comment on these proposed changes.

C. Incidental Services Rule

56. Background. Section 22.323 of the Commission's rules[85] authorizes carriers operating in the Public Mobile Radio Services to provide other communications services incidental to the primary public mobile service, provided certain conditions are met. In general, Section 22.323 requires carriers providing incidental services to protect mobile subscribers by ensuring that: (1) the costs and charges of subscribers not wishing to use incidental services are not increased as a result of the carrier's provision of incidental

[83] *ULS Report and Order*, 13 FCC Rcd. 21027 (1998), *ULS Memorandum Opinion and Order on Reconsideration,* 14 FCC Rcd. 11,145 (1999).

[84] 47 C.F.R. §22.946(a).

[85] 47 C.F.R. § 22.323.

services to other subscribers; (2) the quality and availability of primary public mobile service does not materially deteriorate; and (3) provision of such incidental services is not inconsistent with the Communications Act of 1934 or the Commission's rules and policies.

57. In 1996, in the *CMRS Flex First Report and Order*, we found that many CMRS carriers were seeking to provide a wide range of fixed wireless service offerings to customers and that carriers proposed to combine fixed and mobile technologies into integrated service packages.[86] We found it in the public interest to afford carriers greater flexibility in providing innovative wireless services to meet customer demands, stimulate wireless competition in the local exchange markets and encourage further innovation and experimentation in the development of wireless services. Accordingly, we amended our rules to allow CMRS carriers to provide fixed wireless services on a co-primary basis with commercial mobile services.[87] We did not, however, amend or modify Section 22.323 as it applies to incidental services offered by Part 22 licensees.

58. In the *CMRS Flex Second Report and Order* adopted in July 2000, we further amended our rules to clarify that fixed wireless services provided pursuant to Section 22.901(d) of the Commission's rules[88] are not subject to the incidental services restrictions set forth in Section 22.323 of the Commission's rules.[89] At the same time, we also eliminated the Section 22.323 condition that licensees notify the Commission prior to providing incidental services.[90] Additionally, we indicated that the continuing need for Section 22.323 would be revisited as part of the biennial review of all regulations that apply to providers of telecommunications service.[91]

59. In February, 2000, the WTB addressed a petition for rulemaking filed by FreePage Corporation (FreePage), which requested that we amend Section 22.323 to permit paging licensees to use their assigned channels to transmit audio programming of interest to a narrow or specialized audience. Possible services cited by FreePage included, without limitation, children's programming, foreign language programming, and reading services for persons who have sight disabilities. FreePage referred to this proposed service as Limited Program Distribution Service (LPDS). By Public Notice, the

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[86] *See Amendment of the Commission's Rules to Permit Flexible Service Offerings in the Commercial Mobile Radio Services*, WT Docket No. 96-6, *First Report and Order and Further Notice of Proposed Rulemaking*, 11 FCC Rcd 8965, 8967 ¶ 3 (1996) (*CMRS Flex First Report and Order*).

[87] *See id.*; 4 7 C.F.R. § 22.901(d) (codifying co-primary authorization for cellular service).

[88] 47 C.F.R. § 22.901(d).

[89] *See Amendment of the Commission's Rules to Permit Flexible Service Offerings in the Commercial Mobile Radio Services*, WT Docket No. 96-6, *Second Report and Order and Order on Reconsideration*, FCC 00-246 (rel. Jul. 20, 2000) (*CMRS Flex Second Report and Order*).

[90] *See id.* at 7, ¶ 13.

[91] *See id.* at 8, ¶ 14.

WTB requested comments on whether Section 22.323 should be amended to include the LPDS service proposed by FreePage as an "incidental service" and on whether any other Commission rules should be amended to permit more flexible use of spectrum licensed to CMRS providers.[92] Four parties, including FreePage, filed comments.[93]

60. Discussion. Having recently removed the prior notice requirement, we tentatively conclude that the three remaining conditions in Section 22.323 also are no longer necessary. Section 22.323(a) imposes the condition that the costs and charges to subscribers not wishing to receive incidental services may not be increased as a result of the provision of incidental services to other subscribers. Because of the competitive wireless environment, however, CMRS licensees are not subject to federal rate regulation and are not permitted to file tariffs with the Commission. Under these circumstances, we tentatively conclude that this rate restriction is unnecessary, as any dissatisfied subscriber will have the option of switching to a competing carrier. In addition, the meaning of the restriction in a deregulated, detariffed environment is unclear. For the same reasons, we tentatively conclude that the Section 22.323(b) condition regarding the quality and availability of the primary public mobile service is no longer necessary. We also tentatively conclude that it is unnecessary to expressly remind carriers in this rule of their obligation to comply with applicable provisions of the Act and of our rules and policies. Accordingly, we propose to delete all three of the remaining conditions in Section 22.323, and we seek comment on these proposed deletions.

61. As to the remaining portion of Section 22.323, we recognize that the rule simply may no longer be necessary in the current wireless marketplace, for various reasons. In particular, we have permitted CMRS carriers substantial flexibility to provide a wide variety of service offerings, and we have made clear that carriers offering co-primary fixed service pursuant to Section 22.901(d) and the *CMRS Flex First Report and Order* are not subject to the requirements of Section 22.323. On the other hand, some carriers have argued that express provision for incidental services is helpful in demonstrating to state commissions that certain services must be treated as CMRS exempt from state and local regulation of rates and entry,[94] and GTE has argued that

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[92] *See* Public Notice, *Wireless Telecommunications Bureau Seeks Public Comment on Petition to Amend 47 C.F.R. Section 22.323 to Allow CMRS Licensees to Provide Limited Program Distribution Service*, DA 00-160 (WTB rel. Feb. 9, 2000) (*FreePage PN*). A separate order denied FreePage's request for a waiver, a developmental license or an experimental license to offer its proposed service. *See FreePage Corporation*, DA 00-159 (WTB rel. Feb. 9, 2000).

[93] In addition to FreePage's comments, comments in support of FreePage's petition were filed by Chadmoore Wireless Group, Inc. and Arch Communications Group, Inc., and comments opposing FreePage's petition were filed by the National Association of Broadcasters. Reply comments were filed by FreePage.

[94] *See id.* at 6, ¶ 10, 7, ¶13 (discussing comments); *CMRS Flex First Report and Order*, 11 FCC Rcd at 8968-69 (holding that mobile or fixed incidental services offered by CMRS carriers fall within the definition of mobile service and are subject to CMRS regulation). CMRS are statutorily exempt from state and local government regulation of rates and entry under section 332(c)(3) of the Communications Act, 47 U.S.C. § 332(c)(3).

Section 22.323 remains necessary as applied to air-ground service.[95] In light of these considerations, we seek comment on whether the authorization of incidental services under Section 22.323 of our rules remains necessary as applied to some or all Part 22 services.

62. As part of our consideration of modifying or eliminating Section 22.323, we also seek comment on FreePage's request that Section 22.323 be amended to include the LPDS service proposed by FreePage as an "incidental service." We invite comments on whether spectrum assigned to CMRS licensees could be used for the LPDS service proposed by FreePage. In particular, we would be interested in comments addressing whether the service proposed by FreePage is in fact a broadcast service, and, therefore, whether we would need to change existing spectrum allocation and service rules to permit LPDS service in spectrum assigned to CMRS licensees. More generally, we also request comments on what effects, if any (e.g., interference, service preclusion, or redundancy of service offerings), the implementation of FreePage's LPDS proposal would have on other authorized service offerings or services proposed in pending Commission rulemaking proceedings. Finally, we are particularly interested in receiving comments from members of the disability community regarding how they might benefit from a revision of the Commission's rules that would permit use of the spectrum for programming to narrow or specialized audiences.[96]

D. Cellular Anti-Trafficking Rules

63. Background. Sections 22.937,[97] 22.943,[98] and 22.945[99] of the Commission's rules were originally adopted under former rule sections to prevent speculation and trafficking in cellular licenses, which were primarily awarded by lottery after 1984.[100] Section 22.937 currently requires an applicant for a new cellular system to make a demonstration of financial qualification, at the time of application filing, that it has a separate market–specific firm financial commitment or available financial resources to construct and operate a cellular system for one year. The required demonstration must include an assessment of estimated costs, source of financing, a lender's statement or

[95] *See CMRS Flex Second Report and Order* at 5-6, ¶ 10 (describing GTE comments).

[96] Parties who addressed these matters in comments filed in response to the *FreePage PN* need not repeat their comments in response to this *Notice*. *See supra* note 90 (listing comments received in response to *FreePage PN*). We will enter those comments in the record in this docket.

[97] 47 C.F.R. § 22.937.

[98] 47 C.F.R. § 22.943.

[99] 47 C.F.R. § 22.945.

[100] The first 30 Metropolitan Statistical Area (MSA) licenses were awarded through comparative hearings and the Commission adopted rules in 1984 to award licenses for the remaining MSAs and RSAs through random selection. *See, e.g., Amendment of the Commission's Rules To Allow the Selection from Among Mutually Exclusive Competing Cellular Applications Using Random Selection or Lotteries Instead of Comparative Hearings,* CC Docket No. 83-1096, 98 FCC 2d 175 (1984).

certain financial statements in cases of personal or internal financing. Section 22.937 was originally adopted in 1981 as former Section 22.917.[101] In adopting former Section 22.917, the Commission stated that "cellular applicants must demonstrate that they are financially qualified to construct their proposed facility and to operate it for a reasonable period of time. Such a demonstration is necessary because of the large capital investment required to finance the highly sophisticated technology associated with cellular operations and because cellular service is in an early stage of development and must be viewed as a relatively high-cost business venture."[102]

64. Section 22.943[103] sets forth limitations on assignments and transfers of cellular authorizations and provides that such assignments or transfers are subject to anti-trafficking provisions of former Section 22.139, with certain exceptions.[104] The Commission's anti-trafficking rules generally prohibit acquiring an authorization for the principal purpose of speculation or profit resale. The cellular anti-trafficking rules specifically permit the transfer of cellular licenses awarded by lottery after construction. This policy was intended to balance the public interest in efficient use of the spectrum through free transferability of licenses with a deterrent for insincere applicants to speculate in unbuilt facilities.[105]

65. Section 22.945 governs interests in applicants with mutually exclusive applications for a new cellular system and, with limited exceptions, prohibits parties from having any direct or indirect interest in more than one application for authority to operate a new cellular system in the same cellular market.[106] Section 22.945 was originally

[101] 47 C.F.R. § 22.917 (1981). *See An Inquiry into the Use of the Bands 825-845 MHz and 870-890 MHz for Cellular Communications Systems*, CC Docket No. 79-318, 86 FCC 2d 469 (1981).

[102] *Id*. at 501. The Commission also indicated that because the cellular rules provide that "only two cellular systems can operate in the same geographic area, the inability of any cellular licensee to provide service could significantly inconvenience the public and would cause a huge amount of spectrum to be unused." *Id.* at 502.

[103] Section 22.943 was originally adopted as former Section 22.920 in 1984. *See Amendment of the Commission's Rules To Allow the Selection from Among Mutually Exclusive Competing Cellular Applications Using Random Selection or Lotteries Instead of Comparative Hearings*, CC Docket No. 83-1096, 98 F.C.C. 2d 175 (1984).

[104] Section 22.139 was incorporated into consolidated Commission rule Section 1.948(i), 47 C.F.R. § 1.948(i). *See Biennial Regulatory Review – Amendment of Parts 0, 1, 13, 22, 24, 26, 27, 80, 87 ,90, 95, 97, and 101 of the Commission's rules to Facilitate the Development and Use of the Universal Licensing System in the Wireless Telecommunications Services*, WT Docket No. 98-20, 13 FCC Rcd 21,027 (1998). The Section 22.943 exceptions to the anti-trafficking rule permit the filing of: 1) applications reflecting the trading of an ownership interest in an authorized but unconstructed cellular system in one market for a commensurate interest in a cellular system in another market; and 2) applications to transfer or assign a cellular authorization obtained by lottery after commencement of service.

[105] 98 FCC Rcd. at 217.

[106] In general, the exceptions to the prohibition against having an interest in more than one cellular application in the same cellular market are for licensees of existing systems whose cellular geographic

adopted as former Section 22.921 in 1984,[107] and was intended to prevent abuses of the lottery process by prohibiting the filing of multiple applications in the same market by those with either a majority interest in an entity or a minority interest which may in fact be a controlling interest in the applicant. The Commission recognized that "[d]etermining whether a minority share owner has the power to exercise control, either positive or negative, is very difficult and time-consuming."[108] By precluding participation in more than one application per market in cellular lotteries, the Commission could avoid "numerous protracted challenges to selectees and litigation of that difficult issue after holding lotteries."[109]

66. Discussion. We propose to eliminate or substantially modify Sections 22.937, 22.943, and 22.945 because these rules were adopted primarily during a period when mutually exclusive applications for initial licenses not granted to incumbent LECs were resolved by lottery.[110] As the Commission is now required to resolve mutually exclusive applications for initial cellular licenses through competitive bidding, rather than lottery, certain sections of these rules are outdated and no longer serve the public interest. We therefore seek comment on the proposals discussed below.

67. Section 22.937 of the Commission's rules was adopted at the inception of the cellular radiotelephone service to ensure that proposed cellular carriers had the financial ability to construct and operate a viable cellular system in the licensed market. The financial demonstration is no longer necessary as the cellular radiotelephone service has existed for almost twenty years and there are two authorized cellular carriers in all MSAs and virtually all RSAs. In addition, our rules have been amended to permit interested parties to file applications for any areas not served by cellular carriers after the expiration of the applicable five-year build-out period, and such applications are subject to competitive bidding. We therefore propose to eliminate the financial demonstration requirement set forth in Section 22.937 in all cases, except comparative renewal proceedings. We seek comment on this proposal.

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service area (CGSA) abuts a proposed CGSA and for ownership interests in publicly traded corporations of less than 5 per cent.

[107] *See Amendment of the Commission's Rules To Allow the Selection from Among Mutually Exclusive Competing Cellular Applications Using Random Selection or Lotteries Instead of Comparative Hearings,* CC Docket No. 83-1096, 98 F.C.C. 2d 175 (1984).

[108] *Id*. at 218, fn. 117.

[109] *Id*. at 218. However, the Commission determined that interests of less than 1 per cent would not be considered in the ownership analysis.

[110] After July 1, 1997, the Commission was prohibited from issuing any license or permit using a system of random selection. The Commission is now required to resolve mutually exclusive applications for initial licenses through competitive bidding. *See,* 1997 Balanced Budget Act, Pub. L. No. 105-33, 111 Stat. 251, at Section 3002(a), *codified at* 47 U.S.C. § 309(i),(j) (1997).

68. Section 22.943 imposes anti-trafficking limitations on cellular licensees seeking to assign or transfer their authorizations. This rule was adopted in the lottery era and, as noted, mutually exclusive applications for initial cellular authorizations are currently resolved through competitive bidding. Other wireless services, which are also required to resolve mutually exclusive applications through competitive bidding, are not subject to service-specific rules to prohibit license trafficking or (except in the case of PCS entrepreneur blocks) to specific holding periods prior to assignment or transfer of licenses acquired through competitive bidding. We therefore propose to eliminate Section 22.943 to the extent it prohibits trafficking in cellular licenses and prohibits unserved area licensees from assigning or transferring an authorization until the system has provided service to subscribers for at least one year. The service-specific anti-trafficking rule set forth in Section 22.943 appears to be unnecessary and duplicative, as former Section 22.139, which is referenced in Section 22.943, has been revised and consolidated into Part 1 of our rules applicable to all wireless services.[111]

69. Notwithstanding our proposal to eliminate Sections 22.937 and 22.943, we do not propose to revise or eliminate rules pertaining to cellular comparative renewal proceedings, with the possible exception of Section 22.943(c). Although the Commission is required to resolve mutually exclusive applications for initial cellular licenses through competitive bidding, competing applications filed against an existing cellular licensee's renewal application may need to be resolved through a comparative renewal proceeding pursuant to Section 22.935 of the Commission's rules.[112] A comparative hearing is held among all qualified mutually exclusive applicants if the existing licensee fails to make a showing entitling it to a renewal expectancy, which would require the competing applications to be denied.[113] As a result, we propose to retain the financial demonstration requirement only as it relates to cellular renewal proceedings, specifically Section 22.937(g),[114] which provides that initial cellular applicants competing against a cellular renewal application must make an appropriate financial demonstration. In this limited context, the financial status of a cellular applicant may be an important element in a comparative hearing proceeding. We also seek comment on whether we should retain Section 22.943(c), which provides that the Commission does not accept applications for consent to assign or transfer a cellular authorization acquired by a current licensee for the

[111] Section 1.948(i) provides that "[a]pplications for approval of assignment or transfer may be reviewed by the Commission to determine if the transaction is for purposes of trafficking in service authorizations." 47 C.F.R § 1.948(i). Thus, the Commission may still, in its discretion, require submission of an affirmative showing to demonstrate that the assignor did not acquire the authorization for the principal purpose of speculation or profitable resale of the authorization. 47 C.F.R. § 1.948(i)(2). *See also* Forbearance from Applying Provisions of the Communications Act to Wireless Telecommunications Carriers, WT Docket No. 98-100, *First Report and Order*, FCC 00-311, ¶¶ 29-33 (rel. Sept. 8, 2000)(discussing Section 1.948(i)).

[112] *See* 47 C.F.R. § 22.935.

[113] *See* 47 C.F.R. § 22.935(c); *see also* 47 C.F.R. § 22.940 (setting forth the relevant criteria to be considered in comparative renewal proceedings).

[114] 47 C.F.R. § 22.937(g).

first time as a result of a comparative renewal proceeding until the system has provided service to subscribers for at least three years.[115] We seek comment generally on these proposals.

70. Section 22.945, which prohibits parties from having any direct or indirect interest in more than one application for authority to operate a new cellular system in the same cellular market, was adopted solely to prevent lottery system abuses. We believe the rule is therefore obsolete for the current cellular radiotelephone service, where lotteries are no longer permitted and competitive bidding is required to be implemented to resolve mutually exclusive applications. For example, an applicant filing more than one application for a specific unserved area under our current rules would have no advantage over other applicants seeking an authorization for the same geographic area; all mutually exclusive applicants would be resolved through competitive bidding rather than lottery. We note that we are not addressing in this proceeding the requirements of Section 22.942,[116]which prohibits the same or affiliated parties from having certain interests in cellular licenses for both channel blocks in overlapping cellular geographic service areas ("cellular cross-ownership rule"). We are examining that rule in a separate biennial review proceeding.[117]

IV. ADMINISTRATIVE MATTERS

A. Initial Regulatory Flexibility Act

71. The Initial Regulatory Flexibility Analysis is attached to this *Notice* as Appendix B.

B. Paperwork Reduction Act

72. This *Notice* also proposes to eliminate existing information collections. As part of our continuing effort to reduce paperwork burdens, we invite the public and the Office of Management and Budget (OMB) to take this opportunity to comment on the reduction of information collection burden, as required by the Paperwork Reduction Act of 1995, Public Law 104-13. Public and agency comments are due at the same time as other comments on this *Notice*; OMB comments are due 60 days from date of publication of this *Notice* in the Federal Register. Comments should address: (a) whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility; (b) the accuracy of the Commission's burden estimates; (c) ways to enhance the quality, utility, and clarity of the information collected; and (d) ways to minimize the

[115] *See* 47 C.F.R. § 22.943(c).

[116] 47 C.F.R. § 22.942.

[117] 2000 Biennial Regulatory Review – Spectrum Aggregation Limits for Commercial Mobile Radio Services, WT Docket No. 01-14, *NPRM*, FCC 01-28 (rel. 1/23/01).

burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology.

C. *Ex Parte* Rules

73. This proceeding will be treated as a "permit-but-disclose" proceeding subject to the "permit-but-disclose" requirements under Section 1.1206(b) of the Commission's rules.[118] *Ex parte* presentations are permissible if disclosed in accordance with Commission rules, except during the Sunshine Agenda period when presentations, *ex parte* or otherwise, are generally prohibited. Persons making oral *ex parte* presentations are reminded that a memorandum summarizing a presentation must contain a summary of the substance of the presentation and not merely a listing of the subjects discussed. More than a one- or two-sentence description of the views and arguments presented is generally required.[119] Additional rules pertaining to oral and written presentations are set forth in Section 1.1206(b).

D. Filing of Comments and Reply Comments

74. Pursuant to applicable procedures set forth in Sections 1.415 and 1.419 of the Commission's Rules, 47 C.F.R. §§ 1.415 and 1.419, interested parties may file comments in response to this *Notice* on or before July 2, 2001 and reply comments on or before August 1, 2001. Comments may be filed using the Commission's Electronic Comment Filing System ("ECFS") or by filing paper copies.[120] Comments filed through the ECFS can be sent via the Internet to: <http://www.fcc/e-file/ecfs.html>. Generally, only one copy of an electronic submission must be filed. If multiple docket or rulemaking numbers appear in the caption of this proceeding, however, commenters must transmit one electronic copy of the comments to each docket or rulemaking number referenced in the caption. In completing the transmittal screen, commenters should include their full name, postal service mailing address, and the applicable docket or rulemaking number. Parties may also submit an electronic comment by Internet e-mail. To get filing instructions for e-mail comments, commenters should send an e-mail to ecfs@fcc.gov, and should include the following words in the body of the message, "get form<your e-mail address>." A sample form and directions will be sent in reply.

75. Parties who choose to file by paper must file an original and four copies of each filing. If participants want each Commissioner to receive a personal copy of their comments, an original plus nine copies must be filed. If more than one docket or rulemaking number appears in the caption of this proceeding commenters must submit

[118] 47 C.F.R § 1.1206(b).

[119] *See id.* at § 1.1206(b)(2).

[120] *See In re Electronic Filing of Documents in Rulemaking Proceedings*, 13 FCC Rcd. 11322 (1998) (amending Parts 0 and 1 of the Commission's rules to allow electronic filing of comments and other pleadings).

two additional copies for each additional docket or rulemaking number. All filings must be sent to the Commission's Secretary, Magalie Roman Salas, Office of the Secretary, Federal Communications Commission, 445 12th Street, S.W., Washington, D.C. 20554. The WTB contact for this proceeding is Lauren M. Van Wazer.

76. Written comments by the public on the proposed and/or modified information collections are due July 2, 2001. Written comments must be submitted by the Office of Management and Budget (OMB) on the proposed and/or modified information collections on or before 60 days after date of publication in the Federal Register. In addition to filing comments with the Secretary, a copy of any comments on the information collection burden reduction(s) contained herein should be submitted to Judy Boley, Federal Communications Commission, Room 1-C804, 445 12th Street, SW, Washington, DC 20554, or via the Internet to jboley@fcc.gov and to Virginia Huth, OMB Desk Officer, 10236 NEOB, 725 - 17th Street, N.W., Washington, DC 20503, or via the Internet to vhuth@omb.eop.gov.

V. ORDERING CLAUSES

77. Accordingly, **IT IS ORDERED** that, pursuant to Sections 4(i), 11, and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 161 and 303(r), respectively, NOTICE **IS HEREBY GIVEN** of the proposals described in this Notice of Proposed Rulemaking.

78. **IT IS FURTHER ORDERED** that the Commission's Consumer Information Bureau, Reference Information Center, shall send a copy of this Notice of Proposed Rulemaking, including the Initial Regulatory Flexibility Analysis and Final Regulatory Flexibility Certification regarding broadband PCS, to the Chief Counsel for Advocacy of the Small Business Administration.

Federal Communications Commission

Magalie Roman Salas
Secretary

APPENDIX A

PROPOSED RULE CHANGES

I. Title 47, part 22 of the Code of Federal Regulations, 47 CFR part 22, is amended as follows:

1. The authority citation for part 22 continues to read as follows:

AUTHORITY: 47 U.S.C. 154, 222, 303, 309 and 332.

2. Section 22.323 is amended by revising it in its entirety to read as follows:

§ 22.323 Incidental communication services.

Carriers authorized to operate stations in the Public Mobile Services may use these stations to provide other telecommunications services incidental to the primary public mobile service(s) for which the authorizations were issued.

3. Section 22.367 is amended by removing and reserving paragraph (a)(4) and by revising paragraph (d), to read as follows:

§ 22.367 Wave polarization.

* * * * *

(a) * * *

(4) [Reserved]

* * * * *

(d) *Any polarization.* Base, mobile and auxiliary test transmitters in the Cellular Radiotelephone Service are not limited as to wave polarization. Public Mobile Service stations transmitting on channels higher than 960 MHz are not limited as to wave polarization.

4. Section 22.377 is amended by removing paragraph (c).

5. Section 22.901 is amended to read as follows:

§ 22.901 Cellular service requirements and limitations.

The licensee of each cellular system is responsible for ensuring that its cellular system operates in compliance with this section. Each cellular system must provide either mobile service, fixed service, or a combination of mobile and fixed service, *subject to* the requirements, limitations and exceptions in this section. Mobile service provided may be of any type, including two-way radiotelephone, dispatch, one-way or two-way paging, and personal communications services (as defined in Part 24 of this chapter). Fixed service is considered to be primary service, as is mobile service. When both mobile and fixed service are provided, they are considered to be

co-primary services. In providing cellular services, each cellular system may incorporate any technology that meets all applicable technical requirements in this part.

Section 22.905 is revised to read as follows:

§ 22.905 Frequency bands.

The following frequency bands are allocated for assignment to service providers in the Cellular Radiotelephone Service.

(a) Channel Block A: 869 – 880 MHz paired with 824 – 835 MHz, and 890 – 891.5 MHz paired with 845 – 846.5 MHz.

(b) Channel Block B: 880 – 890 MHz paired with 835 – 845 MHz, and 891.5 – 894 MHz paired with 846.5 – 849 MHz

6. Section 22.911 is amended by revising paragraphs (b)(1) and (b)(3), to read as follows:

§ 22.911 Cellular geographic service area.

* * * * *

(b) * * *

(1) The alternative CGSA determination must define the CGSA in terms of distances from the cell sites to the 32 dBμV/m contour along the eight cardinal radials, with points in other azimuthal directions determined by the method given in paragraph (a)(6) of this section. * * *

* * * * *

(3) The provision for alternative CGSA determinations was made in recognition that the formula in paragraph (a)(1) of this section is a general model that provides a reasonable approximation of coverage in most land areas, but may substantially under-predict or over-predict coverage in specific areas with unusual terrain roughness or features, and may be inapplicable for certain purposes, *e.g.*, cells with a coverage radius of less than 8 kilometers (5 miles). * * *

* * * * *

7. Section 22.915 is removed.

8. Section 22.917 is revised to read as follows:

§ 22.917 Emission limitations for cellular equipment.

The rules in this section govern the spectral characteristics of emissions in the Cellular Radiotelephone Service.

(a) *Out of band emissions*. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

(b) *Measurement procedure*. Compliance with the limitation in paragraph (a) is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or more. However, for measurements within 1 MHz of the center of the main emission bandwidth, a resolution bandwidth of not less than 1% of the main emission bandwidth may be employed. For the purpose of this section, the main emission bandwidth is the continuous width of the signal outside of which all emissions are attenuated by at least 26 dB below the transmitting power. Either peak or average measurements may be used, provided that both the emissions and the reference transmitter power are measured the same way. When measuring emissions, the transmitter must be set to operate as close to each of the upper and lower channel block edges as the design permits for normal operation.

(c) *Alternative out of band emission limit.* Licensees in this service may establish an alternative out of band emission limit to be used at specified band edge(s) in specified geographical areas, in lieu of that set forth in this section, pursuant to a private contractual arrangement of all affected licensees and applicants. In this event, each party to such contract shall maintain a copy of the contract in their station files and disclose it to prospective assignees or transferees and, upon request, to the FCC.

(d) *Interference caused by out of band emissions.* If any emission from a transmitter operating in this service results in interference to users of another radio service, the FCC may require a greater attenuation of that emission than specified in this section.

9. Section 22.919 is removed.

10. Section 22.921 is amended to read as follows:

§ 22.921 911 call processing procedures; 911-only calling mode.

Mobile telephones manufactured after February 13, 2000 that are capable of operating in the analog mode described in the standard publication ANSI TIA/EIA-553-A-99 “Mobile Station – Base Station Compatibility Standard” (published November 1, 1999 - available for purchase from Global Engineering Documents, 15 Inverness East, Englewood, CO 80112), must incorporate a special procedure for processing 911 calls. Such procedure must recognize when a 911 call is made and, at such time, must override any programming in the mobile unit that determines the handling of a non-911 call and permit the call to be transmitted through the analog systems of other carriers. This special procedure must incorporate one or more of the 911 call system selection processes endorsed or approved by the FCC.

11. *See* Section III.B.1, *supra*, for discussion relating to Section 22.933.

12. Section 22.937 is amended by revising it to read as follows:

§ 22.937 Demonstration of financial qualifications in cellular renewal proceedings.

Each applicant for a new cellular system whose application is competing with a cellular renewal application must demonstrate that it has, at the time the application is filed, either a firm financial commitment, an irrevocable letter of credit or a performance bond in the amount of its realistic and prudent estimated costs of construction and any other expenses to be incurred during the first year of operating its proposed system (the irrevocable letter of credit or performance bond must be from the type of financial institution described in paragraph (b) of this section), or available resources, as defined in paragraph (c) of this section, necessary to construct and operate its proposed cellular system for one year.

(a) The firm financial commitment may be contingent on the applicant obtaining an authorization. The applicant must also list all of its realistic and prudent estimated costs of construction and any other expenses to be incurred during the first year of operating its proposed system.

(b) The firm financial commitment required above shall be obtained from a state or federally chartered bank or savings and loan association, another recognized financial institution, or the financial arm of a capital equipment supplier; shall specify the terms of the loan or other form of credit arrangement, including the amount to be borrowed, the interest to be paid, the amount of the commitment fee and the fact that it has been paid, the terms of repayment and any collateral required; and shall contain a statement:

(1) That the lender has examined the financial conditions of the applicant, including audited financial statements where applicable, and has determined that the applicant is creditworthy;

(2) That the lender has examined the financial viability of the proposal for which the applicant intends to use the commitment;

(3) That the lender is committed to providing a sum certain to the particular applicant;

(4) That the lender's willingness to enter into the commitment is based solely on its relationship with the applicant; and,

(5) That the commitment is not in any way guaranteed by an entity other than the applicant.

(c) An applicant intending to rely on personal or internal resources must submit:

(1) Audited financial statements certified within one year of the date of the cellular application, indicating the availability of sufficient net current assets to construct and operate the proposed cellular system for one year;

(2) A balance sheet current within 60 days of the date of filing its application that clearly shows the continued availability of sufficient net current assets to construct and operate the proposed cellular system for one year; and,

(3) A certification by the applicant or an officer of the applicant organization attesting to the validity of the unaudited balance sheet.

(d) Applicants intending to rely upon financing obtained through a parent corporation must submit the information required by paragraph (c) of this section, as the information pertains to the parent corporation.

(e) As an alternative to relying upon a firm financial commitment, an irrevocable letter of credit, or a performance bond from a financial institution as described in paragraph (b) of this section, an applicant may state that it has placed in an escrow account sufficient cash to meet its construction and first-year operating expenses. Such a statement must specify the amount of cash, the escrow account number and the financial institution where the escrow account is located.

(f) Any competing application filed against the renewal application of an incumbent cellular system licensee that does not demonstrate, at the time it is initially filed, that the competing applicant has sufficient funds to construct and operate for one year its proposed cellular system will be dismissed.

13. Section 22.941 is revised to read as follows:

§ 22.941 System identification numbers.

System identification numbers (SIDs) are transmitted by cellular systems to cellular telephones in their areas. Reception of a SID so transmitted enables cellular telephones to establish whether they would be in a "home" or "roamer" status when receiving service from the cellular system. The SID of a cellular system is also programmed into the cellular telephones that are subscribed to that system. A cellular telephone transmits the programmed SID (among other numbers) when seeking service from a cellular system, enabling that system to determine whether the telephone is one of its subscribers or a roamer; and if a roamer, what the home system of that cellular telephone is. SIDs are also used for various billing purposes.

(a) Each cellular system must have at least one SID that is associated uniquely with it. Cellular system licensees must coordinate the usage of SIDs to ensure that this requirement is met.

(b) Cellular systems may transmit only their SID(s) or the SID(s) of other cellular systems. A cellular system may transmit the SID(s) of another cellular system only if the licensee of that system concurs with such use of its SID.

14. Section 22.943 is amended by revising it to read as follows:

§ 22.943 Limitations on transfer of control and assignment for authorizations issued as a result of a comparative renewal proceeding.

Except as otherwise provided in this section, the FCC does not accept applications for consent to transfer of control or for assignment of the authorization of a cellular system that has been acquired by the current licensee for the first time as a result of a comparative renewal proceeding until the system has provided service to subscribers for at least three years.

(a) The FCC may accept and grant applications for consent to transfer of control or for assignment of the authorization of a cellular system that is to be transferred as a part of a *bona fide* sale of an on-going business to which the cellular operation is incidental.

(b) The FCC may accept and grant applications for consent to transfer of control or for assignment of the authorization of a cellular system that is to be transferred as a result of the death of the licensee.

(c) The FCC may accept and grant applications for consent to transfer of control or for assignment of authorization if the transfer or assignment is *pro forma* and does not involve a change in ownership.

15. Section 22.945 is removed.

16. Section 22.946 is amended by revising it in its entirety to read as follows:

§ 22.946 Service commencement and construction periods for cellular systems.

This section specifies the service commencement and construction requirements for cellular systems. Related rule provisions and notification requirements are contained in § 1.946 of this chapter.

(a) *Commencement of service*. Each new cellular system licensed in markets 91-306 must be partially constructed and begin providing service to subscribers within 18 months. All other cellular systems must be at least partially constructed and begin providing service to subscribers within 12 months, beginning on the date of grant of the initial authorization. The grant of any subsequent authorizations (such as for major modifications) do not extend this period. To satisfy this requirement, a cellular system must be interconnected with the public switched telephone network (PSTN) and must be providing service to mobile stations operated by its subscribers and roamers. A cellular system is considered to be providing service only if mobile stations can originate telephone calls to and receive telephone calls from wireline telephones through the PSTN.

NOTE TO PARAGRAPH (A) OF § 22.946: The *first* cellular system authorized on each channel block in markets 1 through 90, inclusive, was allowed 36 months, rather than 12 months, to commence providing service. The *first* cellular system authorized on each channel block in markets *other than* markets 1 through 90, inclusive, was allowed 18 months, rather than 12 months, to commence providing service. These longer startup periods that were afforded to first-authorized cellular systems have all elapsed.

(b) *Construction period for specific facilities*. The construction period applicable to specific new or modified cellular facilities for which a separate authorization is granted is one year, beginning on the date the authorization is granted.

II. Title 47, part 24 of the Code of Federal Regulations, 47 CFR part 24, is amended as follows:

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

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

2. Section 24.238 is revised to read as follows:

§ 24.238 Emission limitations for Broadband PCS equipment.

The rules in this section govern the spectral characteristics of emissions in the Broadband Personal Communications Service.

(a) *Out of band emissions*. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

(b) *Measurement procedure.* Compliance with the limitation in paragraph (a) is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or more. However, for measurements within 1 MHz of the center of the main emission bandwidth, a resolution bandwidth of not less than 1% of the main emission bandwidth may be employed. For the purpose of this section, the main emission bandwidth is the continuous width of the signal outside of which all emissions are attenuated by at least 26 dB below the transmitting power. Either peak or average measurements can be used, provided that both the emissions and the reference transmitter power are measured the same way. When measuring emissions, the transmitter must be set to operate as close to each of the upper and lower frequency block edges as the design permits for normal operation.

(c) *Alternative out of band emission limit.* Licensees in this service may establish an alternative out of band emission limit to be used at specified band edge(s) in specified geographical areas, in lieu of that set forth in this section, pursuant to a private contractual arrangement of all affected licensees and applicants. In this event, each party to such contract shall maintain a copy of the contract in their station files and disclose it to prospective assignees or transferees and, upon request, to the FCC.

(d) *Interference caused by out of band emissions.* If any emission from a transmitter operating in this service results in interference to users of another radio service, the FCC may require a greater attenuation of that emission than specified in this section.

APPENDIX B

INITIAL REGULATORY FLEXIBILITY ANALYSIS

As required by the Regulatory Flexibility Act (RFA),[121] the Commission has prepared this Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on small entities of the policies and proposals in this Notice of Proposed Rulemaking (NPRM), WT Docket No. 01-108. Written public comments are requested on this IRFA. These comments must be filed in accordance with the same filing deadlines for comments on the rest of this NPRM, as set forth in Section IV.C., *supra*, and they must have a separate and distinct heading designating them as responses to the IRFA. The Commission will send a copy of this NPRM, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA) in accordance with the RFA.[122] In addition, the NPRM and IRFA (or summaries thereof) will be published in the Federal Register.[123]

A. Need for, and Objectives of, the Proposed Rules

As part of our 2000 biennial regulatory review pursuant to Section 11 of the Communications Act of 1934, as amended (Communications Act), we are required to review all of our regulations that are applicable to providers of telecommunications service to determine whether any rule is no longer in the public interest. More specifically, in the *Biennial Review Report*, the Commission indicated that it would initiate a rulemaking proceeding to identify and address potentially outdated technical rules governing cellular service, based on the staff's recommendations that were included in the *Biennial Review Staff Report*.[124] The staff report notes that many of the Part 22 technical rules regulating cellular telephone service date back to the inception of the service in the early 1980s and, given the significant technological changes and growth in competition for cellular services since that time, the rules may be obsolete. In particular, the *Notice* seeks comment on elimination of the cellular analog compatibility standard and the Electronic Serial Number (ESN) rule, as well as modifying several other technical rules.[125] In the same vein, some of the cellular anti-trafficking rules may be outdated because they were adopted during a period when the Commission resolved

[121] *See* 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. § 601 *et. seq*., has been amended by the Contract With America Advancement Act of 1996, Pub. L. No. 104-121, 110 Stat. 847 (1996) (CWAAA). Title II of the CWAAA is the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA).

[122] *See* 5 U.S.C. § 603(a).

[123] *Id*.

[124] Biennial Regulatory Review, CC Docket No. 00-175, *Report*, FCC 00-456 (adopted December 29, 2000; released January 17, 2001) (*Biennial Review Report*); Biennial Regulatory Review 2000 Updated Staff Report, released January 17, 2001 (*Biennial Review Staff Report*).

[125] The specific technical rules include: Sections 22.367(a)(4), 22.901, 22.905, 22.911, 22.915, 22.917, 22.919, 22.933, 22.941, and 22.946 of the Commission's rules.

mutually exclusive applications for initial cellular services through lottery, rather than the current system of resolving such mutually exclusive applications through competitive bidding.[126] We also take this opportunity to reevaluate certain other Part 22 rules that apply both to cellular and to other CMRS, specifically Section 22.323, which imposes conditions on the provision of "incidental" services by Public Mobile Services providers.[127]

B. Certification Regarding Broadband PCS

With regard to broadband Personal Communications Service (PCS), we certify, pursuant to the RFA, that the proposed changes to Section 24.238, emissions limitations, would not have "a significant economic impact on a substantial number" of small broadband PCS providers.[128] The proposed changes to this rule would reduce the compliance burden on these entities by allowing these entities greater flexibility to establish out-of-band emissions limits to be used at specified band edges.[129] Specifically, the proposed Section 24.238(c) would allow parties to establish alternative out-of-band emissions limits pursuant to private contractual arrangements – a practice that is not permitted by the current rule. This proposal would effectively codify and expand upon a waiver that the Wireless Telecommunications Bureau (Bureau) granted for all broadband PCS licensees in August 2000.[130] In that waiver grant, the Bureau waived Section 24.238 "insofar as it limits out-of-band emissions on: (1) adjacent contiguous frequency blocks that are separately assigned to the same PCS licensees, and (2) adjacent contiguous frequency blocks that are assigned to different PCS licensees who have entered into an agreement(s) concerning interference protection to the adjacent spectrum."[131] The proposed rule change would allow somewhat more flexibility to licensees because it would not limit a licensee's ability to contract for alternative emissions limitations to only those frequency blocks that are both adjacent and contiguous. Because our proposed change would effectively codify a waiver that permits greater flexibility for broadband PCS licensees, the proposed changes to Section 24.238 would not have a significant economic impact on broadband PCS providers.

C. Legal Basis

The potential actions on which comment is sought in this NPRM would be authorized under Sections 1, 4(i), 11, and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154(i), 161, and 303(r).

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[126] The specific cellular anti-trafficking rules include: Sections 22.937, 22.943, and 22.945 of the Commission's rules.

[127] *See* 47 C.F.R. § 22.323.

[128] *See* 5 U.S.C. § 605.

[129] *See* para. 42, *supra.*

[130] Omnipoint Request for Broadband Declaratory Ruling or Waiver Concerning PCS Emissions Limits Rule Section 24.238, DA 00-1767, 15 FCC Rcd. 13,422 (2000).

[131] *Id.* at ¶ 1.

D. Description and Estimate of the Small Entities Subject to the Rules

The RFA requires that an initial regulatory flexibility analysis be prepared for notice-and-comment rulemaking proceedings, unless the Agency certifies that "the rule will not, if promulgated, have a significant impact on a substantial number of small entities."[132] The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."[133] In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.[134] A small business concern is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.[135] This IRFA describes and estimates the number of small-entity licensees and manufacturers that may be affected if the proposals in this NPRM are adopted.

This NPRM could result in rule changes that, if adopted, would affect small businesses that currently are or may become Cellular Radiotelephone Service providers that are regulated under Subpart H of Part 22 of the Commission's rules. In addition, the proposed changes to Section 22.323 of the Commission's rules would, if adopted, affect service providers that are regulated under any provisions of Part 22 of the Commission's rules. These include, in addition to Cellular Radiotelephone Service providers, providers of Paging and Radiotelephone (Common Carrier Paging), Air-Ground Radiotelephone, Offshore Radiotelephone, and Rural Radiotelephone services. In addition, pursuant to Section 90.493(b) of the Commission's rules, paging licensees on exclusive channels in the 929-930 MHz bands are subject to the licensing, construction, and operation rules set forth in Part 22.[136] As this rulemaking proceeding applies to multiple services, we will analyze the number of small entities affected on a service-by-service basis. In addition to service providers, some of the proposed rule changes may also affect manufacturers of cellular telecommunications equipment. We will include a separate discussion regarding the number of small cellular equipment manufacturing entities that are potentially affected by the proposed rule changes.

1. **Cellular Radiotelephone Service**. Neither the Commission nor the SBA has developed a definition of small entities applicable to cellular licensees. Therefore, the applicable definition of small entity is the definition under the SBA rules applicable to

[132] 5 U.S.C. § 603(b)(3).

[133] *Id.* § 601(6).

[134] *Id*. § 601(3) (incorporating by reference the definition of "small business concern" in 15 U.S.C. § 632). Pursuant to the RFA, the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register." *Id*.

[135] Small Business Act, 15 U.S.C. § 632 (1996).

[136] *See* 47 C.F.R. § 90.493(b).

radiotelephone (wireless) companies. This provides that a small entity is a radiotelephone company employing no more than 1,500 persons.[137] According to the Bureau of the Census, only twelve radiotelephone firms from a total of 1,178 such firms, which operated during 1992, had 1,000 or more employees.[138] Therefore, even if all twelve of these firms were cellular telephone companies, nearly all cellular carriers were small businesses under the SBA's definition. In addition, we note that there are 1,758 cellular licenses; however, a cellular licensee may own several licenses. In addition, according to the most recent *Telecommunications Industry Revenue* data, 808 carriers reported that they were engaged in the provision of either cellular service or PCS, which are placed together in the data.[139] We do not have data specifying the number of these carriers that are not independently owned and operated or have more than 1,500 employees, and thus are unable at this time to estimate with greater precision the number of cellular service carriers that would qualify as small business concerns under the SBA's definition. Consequently, we estimate that there are 808 or fewer small cellular service carriers that may be affected by these proposals, if adopted.

2. **Paging.** The Commission has adopted, and the SBA has approved, a two-tier definition of small businesses in the context of auctioning licenses in the paging services. Under this definition, a small business is defined as either (1) an entity that, together with its affiliates and controlling principals, has average gross revenues for the three preceding years of not more than $3 million, or (2) an entity that, together with affiliates and controlling principals, has average gross revenues for the three preceding calendar years of not more than $15 million. The Commission has estimated that as of January 1998, there were more than 600 paging companies in the United States.[140] We do not have data specifying the number of these carriers that are not independently owned and operated or meet the small business thresholds set forth above, or the number of these carriers that are regulated under Part 22 of the Commission's rules, and thus are unable at this time to estimate with precision the number of affected paging carriers that would qualify as small business concerns under our definition. However, we estimate that the majority of existing paging providers qualify as small entities under our definition. Consequently, we estimate that there are up to approximately 600 currently licensed small paging carriers that may be affected by the rule changes proposed in the NPRM. In addition, high bids were placed at auction in March 2000 for 985 new geographic area paging licenses, and an additional 15,645 geographic area paging licenses are expected to be awarded following future auctions. In the March 2000 auction, high bids were placed on paging licenses by 57 entities that qualify as small businesses under the Commission's definition. Licenses have been granted to 56 of these entities, and the application of the

[137] 13 C.F.R. § 121.201, SIC code 4812.

[138] *1992 Census, Series UC92-S-1*, at Table 5, SIC code 4812.

[139] *See Telecommunications Industry Revenues: 1999*, Industry Analysis Division, Common Carrier Bureau (Sept. 2000).

[140] Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, *Third Report*, 13 FCC Rcd 19746, 19792 (1998).

other entity remains pending. Thus, in addition to existing licensees, should the Commission adopt the rule changes proposed in the NPRM either 57 or 58 license winners in the recent auction would be affected small entities, and up to 15,645 winners of paging licenses in future auctions would be affected small entities.

3. **Air-Ground Radiotelephone Service.** The Commission has not adopted a definition of small business specific to the Air-Ground radiotelephone service.[141] Accordingly, we use the SBA definition applicable to radiotelephone companies, *i.e.*, an entity employing no more than 1,500 persons. There are approximately 100 licensees in the Air-Ground radiotelephone service, and the Commission estimates that almost all of them qualify as small entities under the SBA definition.

4. **Offshore Radiotelephone Service.** This service operates on several ultra high frequency (UHF) TV broadcast channels that are not used for TV broadcasting in the coastal area of the states bordering the Gulf of Mexico. At present, there are approximately 55 licensees in this service. The Commission has not adopted a definition of small business specific to the Offshore Radiotelephone Service. Accordingly, we use the SBA definition applicable to radiotelephone companies, *i.e.*, an entity employing no more than 1,500 persons. The Commission is unable at this time to estimate the number of licensees that would qualify as small entities under the SBA definition for radiotelephone communications. The Commission assumes, for purposes of this IRFA, that all of the 55 licensees are small entities, as that term is defined by the SBA.

5. **Rural Radiotelephone Service.** The Commission has not adopted a definition of small entity specific to the Rural Radiotelephone Service.[142] A significant subset of the Rural Radiotelephone Service is the Basic Exchange Telephone Radio Systems (BETRS).[143] We therefore use the SBA definition applicable to radiotelephone companies; *i.e.*, an entity employing no more than 1,500 persons. There are approximately 1000 licensees in the Rural Radiotelephone Service, and the Commission estimates that almost all of them qualify as small entities under the SBA definition.

6. **Cellular Equipment Manufacturers**. Some of the proposed actions in the NPRM will also affect manufacturers of cellular equipment. The Commission does not know how many cellular equipment manufacturers are in the current market. The 1994 County Business Patterns Report of the Bureau of the Census estimates that there are 920

[141] Air-ground radiotelephone service is defined in Section 22.99 of the Commission's rules, 47 C.F.R. § 22.99.

[142] Rural Radiotelephone Service is defined in Section 22.99 of the Commission's rules, 47 C.F.R. § 22.99.

[143] BETRS is defined in Sections 22.757 and 22.729 of the Commission's rules, 47 C.F.R. §§ 22.757, 22.729.

companies that make communications subscriber equipment. This category includes not only cellular equipment manufacturers, but television and AM/FM radio manufacturers as well. Thus, the number of cellular equipment manufacturers is considerably lower than 920. Under SBA regulations, a "communications equipment manufacturer," which includes not only U.S. cellular equipment manufacturers but also firms that manufacture radio and television broadcasting and other communications equipment, must have a total of 750 or fewer employees in order to qualify as a small business concern.[144] Census Bureau data from 1992 indicate that at that time there were an estimated 858 such U.S. manufacturers and that 778 (91%) of these firms had 750 or fewer employees and would therefore be classified as small entities.[145] Using our current estimate of cellular equipment manufacturers and the previous percentage estimate of small entities, we estimate that our current action may affect approximately 837 small cellular equipment manufacturers.

E. Description of Projected Reporting, Recordkeeping and Other Compliance Requirements

This NPRM neither proposes nor anticipates any additional reporting, recordkeeping or other compliance measures.

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

The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities.[146]

As stated earlier, several of the Commission's technical and anti-trafficking cellular rules may be outdated. Therefore, modifying or eliminating these rules should decrease the costs associated with regulatory compliance for cellular service providers, provide additional flexibility in manufacturing cellular equipment, and also enhance the market demand for some products. Also, amending or deleting the incidental services rules may allow licensees in the Part 22 services greater flexibility in the types of services they offer. In the NPRM, the Commission has set forth various options it is considering for each rule, from modifying rules to eliminating them altogether. As discussed in the NPRM, the effect of any rule change on the regulatory burden of both licensees and

[144] 13 C.F.R. § 121.201, Standard Industrial Classification (SIC) code 3663.

[145] U.S. Dept. of Commerce, 1992 Census of Transportation, Communications and Utilities (issued May 1995), SIC code 3663 (estimate created by the Census Bureau under contract to the Office of Advocacy, SBA).

[146] *See* 5 U.S.C. § 603.

equipment manufacturers will be a significant criterion in determining appropriate Commission action.

We note that the entire intent underlying our actions here is to lessen the levels of regulation, consistent with our mandate for undertaking biennial reviews. We have therefore described, *supra*, various alternatives to lessen the regulatory burden on carriers and equipment manufacturers, including small entities. We seek comment on any additional appropriate alternatives.

G. Federal Rules that May Duplicate, Overlap or Conflict with the Proposed Rules

None.

SEPARATE STATEMENT OF COMMISSIONER GLORIA TRISTANI

Re: *Year 2000 Biennial Regulatory Review – Amendment of Part 22 of the Commission's Rules to Modify or Eliminate Outdated Rules Affecting the Cellular Radiotelephone Service and other Commercial Mobile Radio Services, Notice of Proposed Rulemaking*

As part of our Section 11 biennial review process, this Notice proposes to modify or eliminate numerous rules that apply to the Cellular Radiotelephone Service – the two cellular licenses – under Part 22 of the Commission's rules. Many of these rules date back to the inception of this service in the early 1980s, and it is time we conduct a thorough review. I have some concerns, however, and write separately to express my view that the Commission should look hard at consumer interests and, in particular, the interests of Americans with disabilities, as we engage in our upcoming debate.

While most of us have access to a full array of exciting wireless services and innovative applications, millions of Americans with hearing and speech disabilities are limited to analog-based service offerings. To date, digital wireless technology is still not compatible with text telephone (TTY) devices and most hearing aids. Time and again, the Commission has granted digital technology-based wireless providers extensions and exemptions from compatibility requirements.[1] In reaching these decisions, I have found some level of comfort in the knowledge that during the interim the disability community has had the choice of two analog cellular providers in each market. I remain committed to that choice as long as digital wireless technology remains inaccessible.

Without question, there are consumer and public interest benefits to migrating from analog to digital wireless services: higher quality service offerings, additional service features, and more efficient use of the spectrum, to name a few. In my judgement, however, the fundamental ability of all Americans – including Americans

[1] Since 1997, the Commission has suspended the E-911 rule requiring service providers to pass on TTY calls as it applies to digital wireless systems. *See* Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, *Memorandum, Opinion and Order*, 12 FCC Rcd 22665, ¶ 59 (*E-911 Proceeding*) (suspending enforcement of TTY requirement until October 1, 1998*)*; *E-911 Proceeding Order*, 13 FCC Rcd 21746, ¶ 8 (1998) (Wireless Telecommunications Bureau Order extending suspension through November 15, 1998); *E-911 Proceeding Order*, 14 FCC Rcd 694, ¶ 10 (1998) (Wireless Telecommunications Bureau Order extending suspension through December 31, 1998); *E-911 Proceeding Order*, 14 FCC Rcd 1700, ¶ 4 (1998) (granting over 100 temporary waivers of the rule); *Order*, 14 FCC Rcd 3304 (1999); *E-911 Proceeding Fourth Report and Order*, FCC 00-436, CC Docket No. 94-102 (rel. Dec. 14, 2000) ¶¶ 27-8 (establishing June 30, 2002 as the deadline for digital wireless providers to be capable of transmitting 911 calls made using TTY devices). The Hearing Aid Compatibility Act of 1988 exempted "telephones used with public mobile services" from mandatory compatibility. 47 U.S.C. § 610(b)(2)(A)(i); *see* 47 C.F.R. § 68.4(a). The Commission, however, is statutorily required to "periodically assess" this exemption. 47 U.S.C. § 610(b)(2)(C). Today, digital wireless devices are not hearing aid compatible. We have before us a request to review this exemption. *See* Letter from the Wireless Action Coalition to William Caton, Secretary, FCC (Oct. 7, 2000). I believe we should move ahead and assess the exemption.

with disabilities – to access wireless telecommunications services must be paramount. It is our moral duty and statutory obligation to ensure access to the communications revolution[2]; it *is* the public interest.

The Notice, nonetheless, seeks comment on elimination of the analog service requirement. While it notes that the Commission is "reluctant to eliminate this requirement if doing so will significantly impair the access of these users to wireless telecommunications services,"[3] I would have preferred a tentative conclusion that this agency will not consider eliminating the requirement until TTY- and hearing aid-compatible digital equipment is available to the public. The Commission seeks comment on the rule, however, and so I encourage the disability community to participate in this rulemaking and educate us about their experiences – and frustrations – with wireless services. In addition, I hope we will learn the views of the analog customer base more broadly, particularly those rural customers whose ability to roam could be affected by elimination of the rule.

On a separate note, this item seeks comment on eliminating the requirement that cellular licensees "inform prospective subscribers of the area in which reliable service can be expected."[4] The item observes that PCS providers and other CMRS operators are not subject to this rule, and "these other providers typically give customers service-area-related information."[5] At this time, I question whether meaningful competition makes a rule ensuring the provision of accurate service area information "no longer necessary in the public interest."[6] Indeed, a competitive marketplace could prompt some providers to take liberties in their marketing practices.[7] I look forward to reviewing the record on this matter.

I nonetheless support adoption of this Notice as we examine our rules pursuant to the Section 11 biennial review process. I hope that the questions posed here will prompt people with disabilities and other consumers to participate actively in this proceeding.

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[2] Section 255 of the Communications Act requires that "a provider of telecommunications service shall ensure that the service is accessible to and usable by individuals with disabilities, if readily achievable." 47 U.S.C. § 255(c). In Section 1 of the Act, moreover, the Congress charged the Commission with the responsibility "to make available, so far as possible, to all the people of the United States . . . a rapid, efficient, Nation-wide, and world-wide wire and radio communications service." 47 U.S.C. § 151.

[3] Notice at ¶ 31.

[4] *Id.* at n.16 (quoting 47 C.F.R. § 22.901(a)).

[5] *See id.* at ¶ 14.

[6] 47 U.S.C. § 161(b).

[7] The Commission currently has before it a complaint that a PCS provider has engaged in a print advertising campaign that includes misleading home coverage area information. *See* Letter from Andrea C. Levine, Vice President, National Advertising Division, Council of Better Business Bureaus, Inc. to David Solomon, Chief, Enforcement Bureau, FCC (April 12, 2001). While I take no position as to the underlying merits of that complaint, I note that many consumers view quality of service and extent of network coverage, along with price, as the critical factors in choosing a CMRS provider.