	FIPS#
MO	29
MT	30
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Terr.:	
AS	60
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MH	68
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UM	74
VI	78
Offshore (Marine Areas) [1]:	
Eastern North Pacific Ocean, and along U.S. West Coast from Canadian border to Mexican border	57
North Pacific Ocean near Alaska, and along Alaska coastline, including the Bering Sea and the Gulf of Alaska	58
Central Pacific Ocean, including Hawaiian waters	59
South Central Pacific Ocean, including American Samoa waters	61
Western Pacific Ocean, including Mariana Island waters	65
Western North Atlantic Ocean, and along U.S. East Coast, from Canadian border south to Currituck Beach Light, N.C	73
Western North Atlantic Ocean, and along U.S. East Coast, south of Currituck Beach Light, N.C., following the coastline into Gulf of Mexico to Bonita Beach, FL., including the Caribbean	75
Gulf of Mexico, and along the U.S. Gulf Coast from the Mexican border to Bonita Beach, FL	77
Lake Superior	91
Lake Michigan	92
Lake Huron	93
Lake St. Clair	94
Lake Erie	96
Lake Ontario	97
St. Lawrence River above St. Regis	98

[1] Effective May 16, 2002, broadcast stations, cable systems and wireless cable systems may upgrade their existing EAS equipment to add these marine area location codes on a voluntary basis until the equipment is replaced. All models of EAS equipment manufactured after August 1, 2003, must be capable of receiving and transmitting these marine area location codes. Broadcast stations, cable systems and wireless cable systems which replace their EAS equipment after February 1, 2004, must install equipment that is capable of receiving and transmitting these location codes.

[FR Doc. 02–31712 Filed 12–16–02; 8:45 am]

BILLING CODE 6712–01–P

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Parts 22 and 24

[WT Docket No. 01–108; FCC 02–229 and FCC 02–247]

Public Mobile Services and Personal Communications Services

AGENCY: Federal Communications Commission.

ACTION: Final rule.

SUMMARY: In this *Report and Order* and *Second Report and Order*, the Commission makes significant modifications to its rules that cover the Cellular Radiotelephone and other services as part of its Biennial Review of rules. The Commission modifies or eliminates various rules that have become outdated due to supervening rules, technological change, or increased competition among providers of Commercial Mobile Radio Services (CMRS). The actions that the Commission takes in these items amends its rules to modify the requirement that cellular carriers provide analog service compatible with Advanced Mobile Phone Service (AMPS) specifications by establishing a five-year transition period after which the analog standard will not be required, but may still be provided.

DATES: Effective February 18, 2003. The incorporation by reference of certain publications listed in the regulations is approved by the Director of the **FEDERAL REGISTER** as of February 18, 2003.

FOR FURTHER INFORMATION CONTACT: Roger Noel or Linda Chang, Wireless Telecommunications Bureau, at (202) 418–0620.

SUPPLEMENTARY INFORMATION: This is a consolidated summary of the Federal Communications Commission's *Report and Order* (*R&O*), FCC 02–229, adopted August 8, 2002, and released September 24, 2002, and *Second Report and Order* (*2nd R&O*), FCC 02–247, adopted September 10, 2002, and released September 24, 2002. The full text of the R&O and 2nd R&O is available for public inspection during regular business hours at the FCC Reference Information Center, 445 12th St., SW., Room CY–A257, Washington, DC 20554. The complete text may be purchased from the Commission's duplicating contractor: Qualex International, 445 12th Street, SW, Room CY–B402, Washington, DC, 20554, telephone 202–863–2893, facsimile 202–863–2898, or via e-mail at *qualexint@aol.com.*

Synopsis of Report and Order

I. Background

1. In June 2001, the Commission issued a *Notice of Proposed Rulemaking* seeking to identify and address outdated rule sections of part 22. *See* 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*, 66 FR 31589 (June 12, 2001) (*NPRM*). As the Commission observed in the *NPRM*, technological advances have allowed cellular carriers to increase the capacity of their systems, and to provide advanced services to their customers in the form of enhanced service quality and advanced calling features. Moreover, the mobile telephony industry has become much more competitive with the entry of CMRS providers using technologies other than analog cellular into the market. Many of the Commission's cellular rules, however, do not reflect these developments, and continue to be more applicable to the earlier forms of cellular than the more advanced digital services available today. Accordingly, the Commission concluded in the *NPRM* that it is appropriate to re-examine its original cellular rules to determine whether certain rules should be eliminated or modified.

II. Discussion

A. Section 11 of the Communications Act

2. In 1996, Congress anticipated that the development of competition would lead market forces to reduce the need for regulation and amended the Communications Act of 1934 to permit and encourage competition in various communications markets. *See* Telecommunications Act of 1996, Pub.

Law No. 104–104, 110 Stat. 56 (1996) (''1996 Act''), introductory statement (the 1996 Act was intended ''[t]o promote competition and reduce regulation in order to secure lower prices and higher quality services for American telecommunications consumers and encourage the rapid deployment of new telecommunications technologies.''); Joint Managers' Statement, S. Conf. Rep. No. 104–230, 104th Cong., 2d Sess. 113 (1996) at 1 (stating that the 1996 Act would establish a ''pro-competitive, deregulatory national policy framework''). Section 11 of the 1996 Act requires the Commission to review biennially all of its regulations ''that apply to the operations or activities of any provider of telecommunications service'' and to ''determine whether any such regulation is no longer necessary in the public interest as a result of meaningful economic competition between providers of such service.'' *See* 47 U.S.C. 161. In the past, the Commission has looked to the plain meaning of the text for guidance in exercising its obligation pursuant to section 11. *See* In the Matter of 2000 Biennial Regulatory Review Spectrum Aggregation Limits for Commercial Mobile Radio Services, WT Docket No. 01–14, Report and Order, 67 FR 1626 (Jan. 14, 2002). The Commission has stated that ''the language places an obligation on the Commission to 'determine' if the regulation in question 'is no longer necessary in the public interest as the result of meaningful economic competition.' '' *Id.* at 1617. Further, section 11 explicitly provides that ''the Commission shall repeal or modify'' any regulation that it determines is no longer necessary in the public interest as a result of meaningful economic competition. 47 U.S.C. 161(b). The Commission notes that section 11 places the burden on the Commission to make the requisite determinations; no particular burden is placed on the opponents or proponents of a given rule. The Commission has previously interpreted the language of section 11 as directing it to examine why a rule originally was ''necessary'' and whether it continues to be necessary. The Commission has found that in making the determination whether a rule remains ''necessary'' in the public interest once meaningful economic competition exists, the Commission must consider whether the concerns that led to the rule or the rule's original purposes may be achieved without the rule or with a modified rule. *Id.* at 1628.

B. Analog Cellular Compatibility Standard

3. In establishing the Cellular Radiotelephone Service in the early 1980s, the Commission found that a single technology—analog—should be mandated to accomplish two goals: (1) To enable subscribers of one cellular system to be able to use their existing terminal equipment (*i.e.*, mobile handset) in a cellular market in a different part of the country (roaming); and (2) to facilitate competition by eliminating the need for cellular consumers to acquire different handset equipment in order to switch between the two competing carriers within the consumers' home market (thus ensuring reasonable consumer costs.). To facilitate these goals, all carriers were required to provide service exclusively in accordance with the then-existing compatibility standard for analog systems, known as Advanced Mobile Phone Service (AMPS). The detailed technical standards for AMPS were set out in the Office of Engineering and Technology Bulletin No. 53 (OET 53) in April 1981. The OET 53 specifications established technical operational parameters and descriptions of call processing algorithms and protocols to be used by analog cellular systems. Pursuant to § 22.901, a carrier must provide service to any subscriber within the carrier's CGSA, including both the carrier's subscribers and roaming customers that are using technically compatible equipment. 47 CFR 22.901. Section 22.901(d) specifically requires that carriers make mobile services available to subscribers whose mobile equipment conforms to the AMPS compatibility standard. 47 CFR 22.901(d). The Commission's cellular rules, in effect, continue to obligate carriers to provide analog service consistent with the standard identified two decades ago in OET 53.

4. After reviewing the record, the Commission concludes that in light of the present competitive state of mobile telephony, the nationwide coverage achieved by cellular carriers, and the clear market demand for nationwide, ubiquitous coverage by carriers, the analog requirement has substantially achieved its purpose of ensuring that the public has access to low-cost, compatible equipment and to nationwide roaming. Not only does the Commission determine that the rule is no longer necessary to achieve its purposes, it concludes that it imposes costs and impedes spectral efficiency. The development of the mobile telephony industry further leads the Commission to find that these objectives can largely be accomplished by market forces without the need for regulation. The Commission therefore concludes that the analog requirement should be removed. However, eliminating the rule immediately without a reasonable transition period would be extremely disruptive to certain consumers, particularly those with hearing disabilities as well as emergency-only consumers, who currently continue to rely on the availability of analog service and lack digital alternatives. Accordingly, the Commission modifies its rules requiring application of the analog compatibility standard to include a sunset period of five years, during which time the Commission anticipates that problems regarding access will likely be resolved. In order to enable the Commission to monitor the adequacy of access to mobile telephony by those currently reliant on analog service, certain CMRS carriers will be required to file reports prior to the sunset, describing the extent to which hearing aid-compatible digital devices are available to and usable by consumers with hearing disabilities, and the progress made in informing their customers of the impact of the 5-year sunset date on 911-only phones and analog-only phones, as well as the availability of digital replacements for donated analog phones.

1. Indefinite Retention of the Analog Requirement is not Warranted

5. The Commission finds that it is not necessary to retain the analog requirement in order to ensure competition. Indeed, the Commission concludes that continuing to require carriers to operate consistent with the AMPS standard may hinder competition by causing spectral inefficiencies and increased costs to those carriers who would prefer to concentrate on digital technology. Additionally, the robust mobile telephony market leads the Commission to conclude that the analog requirement is no longer necessary to ensure reasonable costs, as well as the continued availability of roaming to the vast majority of consumers. Removal of the requirement is consistent with its desire to move toward a less regulatory approach, as well as a congressional directive to treat similarly-situated CMRS in a like manner.

6. *The analog requirement is no longer needed to foster competition.* The Commission sought to ensure that there was competition, albeit limited, within any given market by compelling carriers to operate consistent with AMPS specifications as well as requiring that carriers serve all consumers using AMPS-compatible handsets. The mobile

telephony industry, however, has changed immensely in the two decades since the establishment of the cellular service. The market for mobile telephony service now includes the Personal Communications Services (PCS) and the Specialized Mobile Radio (SMR) service in addition to cellular. The Commission noted in its *Seventh CMRS Competition Report* that 268 million people, or 94 percent of the total U.S. population, currently reside in areas in which three or more different operators (cellular, broadband PCS, and/or digital SMR providers) offer mobile telephony service in the counties in which they live. Over 229 million people, or 80 percent of the U.S. population, live in counties with five or more mobile telephony operators offering service, while 151 million people, or 53 percent of the population live in counties with at least six different mobile telephony operators.

7. Rather than encouraging competition, the Commission concludes that, in many instances, the analog requirement harms competition by imposing unnecessary operating costs and impeding the spectral efficiency of the two cellular providers in the market. First, the analog requirement places a financial burden on cellular licensees who would prefer to use their spectrum and other resources on digital technology rather than setting aside a portion to support their analog facilities. Cellular licensees that deploy digital technologies must also maintain a minimum scale analog network. These cellular licensees incur operation and maintenance costs for two mobile telephony networks in order to comply with Commission rules. Also, by maintaining two networks, operation and maintenance costs associated with the digital network may be higher because the carrier is not able to optimize the system as efficiently as it would if there was only one network. Second, the Commission also agrees with commenters who argue that imposition of the analog requirement impedes spectral efficiency. Digital technologies are more efficient than analog, use less bandwidth, and give consumers access to advanced services not feasible with analog. The analog requirement prevents cellular licensees from choosing to efficiently utilize their spectrum by installing an all-digital network and potentially providing additional advanced services. Further, the analog requirement may result in certain carriers being capacity constrained in certain geographic markets depending on the amount of spectrum dedicated to AMPS, usage by AMPS customers, type of digital technology, and how intensively their digital customers utilize their services. Thus, to the extent that a cellular carrier incurs costs to operate an analog network that it would not maintain but for the analog requirement, the Commission concludes that the rule imposes unnecessary financial burdens and hinders spectral efficiency. These factors in turn impede the ability of the cellular carrier to compete vis-à-vis other mobile telephony providers who are not subject to the requirement.

8. *Access to reasonably priced equipment is not dependent on the continued imposition of the analog requirement.* It is no longer the case that the analog requirement is needed to ensure reasonably priced equipment, and, as a result, increased competition. Because early cellular mobile equipment was expensive, the Commission concluded that it was cost-prohibitive for consumers to switch providers in the event the two carriers in the market utilized different technical standards. The Commission found that consumers would be discouraged from switching cellular providers if they had to purchase additional equipment in order to be served by the second carrier. The Commission found that mandating a specific technology would enable consumers to choose between carriers without regard to cost of equipment, thereby encouraging competition between the carriers. Today, however, mobile handsets are much less expensive. The declining cost of such equipment as well as the frequent carrier subsidy of the cost of the telephones have diminished the handset disincentives for consumers switching between providers (whether cellular or other CMRS). Consumers are now able to easily choose from a panoply of carriers and technologies.

9. *Roaming is not dependent on the analog requirement.* The Commission continues to consider the existence of a nationwide, compatible service to be a major goal for the cellular service. However, given the current competitive state of mobile telephony, the Commission concludes that consumers will continue to have the ability to roam outside of their home markets even in the absence of the analog requirement. In the years since the cellular service was established, many CMRS providers using digital technology, particularly broadband PCS and SMR services, have developed and established a strong market presence. When the rules for market-based PCS and SMR services were established, the Commission declined to impose technological compatibility rules, and allowed carriers the flexibility to implement air interface technologies of their own choosing. In the absence of a Commission-mandated standard for PCS and SMR, carriers have nonetheless established systems providing seamless nationwide service in response to customer demand. Service providers have been successful in establishing nationwide systems, even though they employ different air interface technologies, by acquiring licenses in as many markets as possible, establishing roaming agreements with other carriers who have implemented the same digital technology, and providing multimode handsets that allow customers to roam using analog cellular service where interoperable digital service is not available.

10. The Commission does not find persuasive arguments that elimination of the analog requirement will force small and regional carriers to convert to digital earlier than they would otherwise in order to ensure seamless service to their customers and other consumers, or that such a transition will be cost-prohibitive for such service providers or their customers. The choice to switch from analog to digital technology, as well as the rate at which the transition occurs, are business decisions made by the individual carrier. Indeed, the Commission concludes that market forces are already at work with respect to small and regional carriers. After reviewing current and future market trends in mobile telephony, the Commission finds that many small and regional carriers are or will be shifting their systems towards digital technology. The Commission expects that construction by PCS licensees in rural areas will continue to increase, thereby providing digital services to customers in rural areas. With the introduction of digital services by PCS providers, cellular licensees are likely to find it competitively necessary to install or expand their digital network, regardless of whether or not the analog requirement is retained. Moreover, the Commission expects that the increasing presence of multimode handsets will minimize the necessity for small and regional carriers to completely switch to a digital system. Accordingly, the Commission concludes that roaming and interoperability concerns held by small and regional carriers are not a sufficient basis to require the continued application of the analog requirement.

11. The Commission notes that the five-year sunset period it is establishing for other reasons should mitigate the concerns of small or regional carriers, such as the disruptions to operations that an immediate elimination of the

analog requirement might cause. For example, a transition period permits carriers to evaluate their current and future technology choices as well as those of their current roaming partners. Carriers will have the opportunity to negotiate new contracts where needed to ensure the availability of roaming services to their customers. Also, the elimination of the cellular analog requirement will increase the demand for the development and commercial implementation of multimode/multiband handsets, a process that is already occurring. By the end of the transition period, these handsets should be widely available and customers may choose to migrate to these new handsets depending on their roaming needs. Further, the transition period provides additional time for PCS licensees in both Rural Service Areas (RSAs) and Metropolitan Statistical Areas (MSAs) to further build out their licensed service areas in order to enhance opportunities for roaming for all consumers.

12. *The possible impact on telematics providers does not justify retention of the analog requirement.* Telematics providers argue that the elimination of the rule will significantly impair their ability to provide service because these systems require analog technology due to its ubiquitous coverage, and that there is currently no other widely-deployed technology available to adequately support telematics services. While digital service providers are continuing to expand their service area footprint, commenters argue that there are still large gaps in coverage, and note that the various digital standards are not interoperable. Commenters argue that digital systems cannot yet transmit both voice and data on the same call, a feature that commenters argue is important for telematics providers. Commenters assert that the interoperability problem is particularly difficult for telematics devices because manufacturers must choose a technology that is embedded in a vehicle that will have a useful life of ten or more years. Telematics providers contend that, unlike the typical cellular subscriber who can readily switch to digital handsets if necessary, the development cycle (the length of time necessary to design, test, and install equipment in vehicles) and hardware basis of telematics-equipped vehicles prevents users of such services from quickly and easily migrating to a new technology. Commenters argue that, in evaluating this issue, the Commission should take into account the useful life of the vehicle, the vehicle development cycle, as well as investments made by owners of vehicles with embedded telematics systems.

13. The Commission concludes that arguments advanced by telematics providers do not constitute sufficient basis to warrant the indefinite imposition of an outdated technical standard. Each of the factors identified by telematics providers—*e.g.* development cycles of vehicles, choice of hardware and technology platforms—are considerations within the control of the individual provider or the original equipment manufacturer with whom it partners. However, as in the case of regional carriers, the Commission finds that the sunset period it is establishing for other reasons should also mitigate any significant impacts that might affect telematics providers. During the transition period, the Commission anticipates that telematics providers will be able to partner with cellular, PCS, and SMR carriers in order to secure service on the carriers' digital networks. Based on the record, the Commission concludes that within the next five years, the telematics industry will make great strides towards developing multimode devices that will provide interoperability and facilitate roaming on digital networks. Moreover, the majority of commenters concede that a reasonable transition period would ease any concerns regarding the elimination of the analog requirement.

14. *Modification of the rule is supported by section 332 of the Communications Act.* Another factor supporting the modification of the analog requirement to include a five-year sunset is section 332 of the Act, which directs the Commission to regulate CMRS providers to technical and operational rules comparable to those that apply to providers of substantially similar common carrier services. Section 332 requires that differences between rules governing competing services should be conformed if the Commission determines that the differences distort competition by placing unequal regulatory burdens on different types of CMRS providers. Over the years, the Commission has shifted towards taking a less regulatory approach in setting out technical standards for the various wireless services. Yet in the case of cellular, while the Commission has afforded carriers the flexibility to deploy new technologies and to offer digital services similar to that offered by PCS providers, cellular carriers must nonetheless continue to provide analog service. The analog standard forces cellular carriers to incur costs and burdens not assumed by other CMRS licensees despite the similarity of services provided by cellular carriers as compared with other providers.

2. Sunset of the Analog Requirement

a. 911-Only Phones and Unsubscribed Emergency Phones

15. A primary reason for the growth of mobile telephony is the safety and security functions of wireless telephones. Indeed, some consumers acquire wireless telephones that can only make 911 calls. These 911-only consumers can be categorized as: (1) ''Unsubscribed'' consumers of recycled phones that were previously, but are no longer, service-initialized by a wireless carrier, and have been reissued under some type of donor program, such as phones donated to victims of domestic violence, and (2) subscribers of newly manufactured 911-only phones that can only make 911 calls but are incapable of receiving any incoming calls. Consumers of the latter are often elderly persons who cannot afford basic wireless service or do not want typical wireless service, but desire immediate access to emergency services. The Commission concludes that a transition period is warranted in order to mitigate possible negative effects to emergency-only consumers that might otherwise occur with an immediate elimination of the analog requirement. Also, in some geographic areas in which digital coverage is currently insufficient, a transition period will allow carriers time to enhance coverage. The transition period will allow for the continued expansion of digital networks and further conversion of analog networks to digital, thereby providing for a more extensive network of digital technologies. During the transition period, service providers can conduct customer outreach in order to educate consumers that analog services may be discontinued on a certain date, thereby providing emergency-only consumers with time to migrate from analog to digital handsets.

16. Although there is currently a sizable number of unsubscribed analog and 911-only consumers, it can be assumed that the total number of such users will decline in the future, as digital networks expand and carriers migrate current analog customers to digital services. The Commission expects that unsubscribed consumers will have access to digital equipment as digital handsets are being donated as well as analog handsets. It is reasonable to assume that the number of digital handsets will increase over time because the number of digital subscribers is approximately three times that of analog subscribers, and a

consumer uses a handset on average for 1.5 to 2.5 years before acquiring a new one. Because handsets are recycled every 18 to 30 months, the Commission concludes that a transition period should ensure that recipients of donated mobile telephones have access to digital equipment.

b. Accessibility Issues

17. The Commission has for some time been cognizant of the concerns held by persons with hearing disabilities regarding their ability to access wireless technologies and services. Although most consumers have a variety of mobile technologies and services available to them, persons with hearing disabilities desiring to use wireless devices must currently rely on analog service or the small number of digital phones that are currently compatible with hearing aids—a compatibility that is limited to certain types of hearing aids. Unlike analog handsets, digital technologies have been shown to cause interference to hearing aids and cochlear implants. For the most part, analog wireless equipment does not pose interference problems for hearing aid wearers because they transmit signals at a steady rate; no extraneous audible noise is produced because these signals are not demodulated by the handset and in turn amplified by the hearing aid. Unlike analog equipment, however, digital wireless telephones do not transmit electromagnetic energy at a steady rate, and the fluctuations can cause disruptive interference to hearing aids or cochlear implants. Currently, nearly all digital equipment can cause some interference to many types of hearing aids and cochlear implants.

18. The Commission's review of the record leads it to conclude that immediately removing the requirement that cellular carriers operate consistent with the analog compatibility standard would indeed be detrimental to persons with hearing disabilities. Because persons with hearing disabilities must continue to rely on analog technology for access to wireless service at this time, the Commission finds that the record supports implementing a transition period during which time it anticipates that digital solutions to the hearing aid-compatibility problem will be developed and made widely available. In order to ensure that analog service remains available to persons with hearing disabilities while industry seeks to develop accessible digital technologies, the Commission provides for a five-year transition period before the elimination of the analog requirement. The Commission concludes that a five-year period provides a reasonable time frame for the development of solutions to hearing aid-compatibility issues. The progress made in developing digital TTY solutions leads it to determine that the industry will also likely be able to develop digital solutions for telephones within a five-year period. Moreover, mandating a shorter timeframe may result in persons with hearing disabilities gaining access to digital handsets more quickly than if the Commission sets out a longer period. Because the Commission is reserving the right to extend the sunset period in the event that solutions to hearing aid-compatibility problems are unsatisfactory, the industry has an incentive to develop digital solutions to the access problem.

19. The Commission notes that it is establishing a transition period to safeguard the ability of persons with hearing disabilities to access mobile telephony services even though carriers are otherwise obligated to ensure that telecommunications service is accessible to persons with disabilities. 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.'' *See* 47 U.S.C. 255(c). In the *NPRM*, the Commission observed that if the analog requirement was eliminated, section 255 would still require that carriers to make digital services compatible with hearing aid devices. Although a few commenters argue that mobile telephony providers and manufacturers can circumvent the provisions of section 255, the Commission concludes that section 255 requires providers to ensure that their services remain accessible to persons with hearing disabilities. However, the independent requirements of section 255 notwithstanding, the Commission finds that it is appropriate to also establish a five-year transition period in order to address the particular current problem of hearing aid-compatibility with digital handsets, and ensure access to mobile telephony service for persons with hearing disabilities.

20. *Reporting requirement.* In order to monitor the progress made by the wireless and hearing aid industries in developing solutions, and to ensure that wireless services are continuing to be made available to persons with hearing disabilities as well as 911-only consumers, the Commission will require that, no later than the third and fourth anniversary of the effective date of this order, certain CMRS licensees and other entities file reports with the Commission. The reports will be required from all cellular licensees providing nationwide coverage. In addition, the reports must inform the Commission whether each carrier intends to discontinue analog service, identify the markets in which it plans to discontinue analog service, and for how long it plans to continue analog service and in which markets. If a carrier intends to discontinue analog service, the carrier must certify and provide information in its report that there are hearing aid-compatible digital devices available to persons with hearing disabilities at the time of filing, or, if no such equipment is available at the time of filing, describe the extent to which, by the end of the fifth year, digital equipment will be available to persons with hearing disabilities in market(s) where the carrier intends to discontinue analog service. Carriers may also be required to show in their reports that they are in compliance with the provisions of section 255 of the Act, as well as with any other obligations required of them by the Commission. Such carriers, in their reports, may also be required to describe their plan for informing its subscribers, the public and other interested parties regarding plans to discontinue analog service. Finally, other interested parties will be able to file reports or comments as appropriate, and the Commission encourages joint efforts. Such Reports will be made publicly available to all interested parties who may file supplemental information as appropriate to ensure that the Commission has a full record. The information contained in the reports will be used to determine whether or not the Commission will initiate a proceeding to extend the sunset date or take appropriate enforcement action under section 255.

21. Further, the Hearing Aid Compatibility Act of 1988 (HAC Act) requires almost all new telephones to ''provide internal means for effective use with hearing aids that are designed to be compatible with telephones which meet established technical standards for hearing aid compatibility,'' but provides an exemption for certain categories of phones including those used with CMRS and the private mobile radio services (or PMRS). 47 U.S.C. 610(b)(1); *see* 47 CFR 68.4(a). In November 2001, the Commission initiated a proceeding to examine whether this exemption continues to remain necessary, or whether the statutory criteria for revocation or limitation of the exemption have been satisfied. *See* In the Matter of Section 68.4(a) of the Commission's Rules Governing Hearing Aid-Compatible Telephones, WT Docket

No. 01–309, *Notice of Proposed Rulemaking*, 16 FCC Rcd 20558 (2001) (*HAC Proceeding*). The action taken here does not preclude the Commission from independently requiring carriers to comply with HAC requirements, even during the 5-year transition period, in the event that the Commission determines in the *HAC Proceeding* that the statutory criteria for revocation or limitation of the exemption have been satisfied. Finally, the Wireless Telecommunications Bureau, in conjunction with the Consumer & Governmental Affairs Bureau, will work closely with the Food and Drug Administration and the Commission's Office of Engineering and Technology in the development of standards for hearing aid design that alleviate interference.

C. Electronic Serial Number Rule

22. In the *NPRM*, the Commission proposed to remove § 22.919 of its rules, which sets forth electronic serial number (ESN) design requirements for manufacturers of cellular telephones. The purpose of this rule was to address the problem of cellular ''cloning'' fraud that was prevalent in the mid-1990s. Over the years, however, other measures have developed to combat cloning fraud. For example, Congress enacted the Wireless Telephone Protection Act of 1998 to address fraudulent and unauthorized use of wireless telecommunications services. Further, the cellular industry has developed a more secure access protocol, known as authentication. Other anti-fraud countermeasures developed by the industry include ''radio frequency fingerprinting,'' which identifies a mobile handset by its unique radio transmission characteristics, as well as ''call profiling,'' which enables carriers to monitor for unusual, sudden changes in calling patterns.

23. After reviewing the original purpose of the rule, the anti-fraud techniques that have been developed since the adoption of the rule, as well as the comments in this proceeding, the Commission concludes that the ESN rule is no longer necessary in the public interest and adopts its proposal to eliminate § 22.919. The concerns that led to the adoption of this rule have been addressed and no longer require retention of this rule. The Commission finds that it is unnecessary to continue to mandate detailed hardware design requirements given the success the wireless industry has had in developing other more effective anti-fraud measures.

D. Channelization Requirements

24. 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. *See* 47 CFR 22.905. It also sets forth a channelization plan that sub-divides each block into 416 paired 30 kHz channels and designates 21 of these paired channels as control channels. Alternative technologies, including the principal digital technologies many cellular licensees have overlaid on top of their analog networks, are exempt from this channelization plan rule. The Commission proposed in the *NPRM* to remove the channelization plan for compatible AMPS cellular systems from § 22.905 of its rules, and to rephrase the remainder of that section such that it specifies only the portions of the electromagnetic spectrum allocated to the Cellular Radiotelephone Service and which frequency ranges make up the two initial blocks. The Commission reasoned that the analog technology to which the channelization plan is applicable is well-established nationwide, and thus removing the plan would not pose any risk of decreased cellular technical compatibility.

25. Given the number of standard analog base stations and handsets in use today and the efficiencies to be gained by implementing alternative digital (not analog) technologies, it appears highly unlikely that any carrier would have the incentive to deploy an alternative analog technology during the five-year sunset adopted in this proceeding. Further, carriers will continue to be bound by existing roaming agreements for at least some portion of the sunset, again making it highly unlikely that there would be any incentive to deploy an alternative analog technology. The Commission notes that the AMPS channelization plan is the current industry standard for AMPS and will presumably continue to provide guidance to licensees through the sunset of the analog requirement.

E. Modulation Requirements and In-band Emissions Limitations

26. In the *NPRM,* the Commission sought comment on its proposal to modify § 22.915 of its rules, which sets out a number of technical specifications for, *inter alia,* the performance of audio filter and deviation limiter circuitry in analog cellular telephones, and adjustment of the modulation levels in analog cellular telephones. Consistent with its less regulatory approach with PCS and other CMRS, as well as its proposal to eliminate the analog requirement, the Commission proposed to eliminate the provision set out in § 22.915 requiring cellular systems to have the capability to provide service using the modulation types specified in OET 53 (analog compatibility standard). The Commission also proposed to remove all rules governing audio filter and deviation limiter performance, modulation levels, and in-band radio frequency emission limits.

27. The Commission also proposed changes to § 22.917 of its rules, which prescribes emission masks limiting both in-band and out-of-band radio frequency emissions. As with the proposal to remove the channelization requirements, the Commission proposed changes to the introductory paragraph of § 22.917, which requires that analog modulated emissions be transmitted only on the communication channels. Further, the Commission sought comment regarding how it should define the out-of-band emission limit in order to provide an adequate measure of interference protection to other licensees and service, while also allowing licensees the flexibility to establish a different limit where appropriate. Specifically, the Commission asked whether licensees should be permitted to operate transmitters on frequencies closer to the edge of their authorized spectrum than full compliance with § 22.917 would normally allow, as long as all potentially affected parties (*i.e.* adjacent licensees) agree to such a provision. The Commission also noted that its Wireless Communications Service (WCS) rules provide this flexibility, and it indicated that cellular and broadband PCS licensees would also benefit from such flexibility. Accordingly, the Commission sought to conform the language and provisions of the out-of-band emission limit rules specific to the cellular service and broadband PCS with those applicable to WCS.

28. As the Commission is moving toward a less regulatory approach with respect to its service rules and is permitting carriers to deploy technologies that best fit the needs of the market, the Commission adopts its proposal with certain modifcations. Further, the Commission concludes that, because it seeks to ensure regulatory conformity wherever practical, its rules regarding out-of-band emissions limits for the various services should be similar.

29. However, certain commenters to the proceeding point out that implementation of the measurement resolution bandwidth specified in the proposed rule would have the effect of imposing a stricter out-of-band emission

limit than that which currently applies. Specifically, the commenters object to the proposed rule's specification that compliance with the out-of-band emissions limit should be measured by using instrumentation employing a resolution bandwidth of 1 MHz or more from the center of the band. In proposing the rule change, the Commission sought only to harmonize certain procedures in the WCS, PCS and cellular services, and did not intend to make the out-of-band emission limits more restrictive. Accordingly, the Commission modifies the proposed rule by substituting in language that is more consistent with recently adopted International Telecommunications Union (ITU) standards for emissions. *See* ITU–R SM.329.

F. Vertical Wave Polarization Requirement

30. 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. 47 CFR 22.367(a)(4). This rule was originally adopted in order to promote technical compatibility for cellular systems, as well as to reduce the likelihood of interference from cellular transmitters to broadcast television (TV) reception on the upper UHF TV channels. *See* In the Matter of 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 (1994). The Commission tentatively concluded in the *NPRM* to relax § 22.367 of its rules to provide that cellular stations no longer be limited as to the polarization of the transmitted waves. The Commission specifically sought comment on what interference or adverse effects might be caused to mobile, fixed, and broadcast services operating in the cellular service spectrum or adjacent spectrum.

31. The original purposes of the rule no longer warrant this requirement on cellular carriers. The Commission is persuaded that relaxation of this requirement will have little effect on interoperability or UHF television channels. Even if a base station's transmissions are vertically polarized, many hand-held mobile units may not benefit from vertical polarization because they are either held in a manner such that their antenna is not vertical, or because the transmission's polarization will be shifted due to reflections from man-made structures. Accordingly, a vertically polarized transmission generally will provide little interoperability benefit to users of hand-held mobile phones. Furthermore, cellular base stations transmit on frequencies above 869 MHz (a minimum separation of 63 MHz from the closest UHF television frequency), thereby reducing the likelihood of interference with upper-band UHF television channels.

32. The Commission is not persuaded by arguments that the vertical polarization requirement should not be removed because it could result in reduced RF coverage for its end users, and impair telematics' ability to provide geographic location information for emergency services. The Commission notes that such concerns are limited to rural areas, where cellular carriers are unlikely to use other than vertical polarization because they have little incentive to do so. In addition, it is anticipated that cellular carriers will make the appropriate technical adjustments to account for varying polarization of transmit and receive antennas, and thereby obtain equivalent analog cellular performance at the boundaries of a rural cell site when using alternative technologies. The Commission notes that cellular carriers already have the flexibility to reduce coverage or turn off their systems for short or long periods without seeking prior approval of the Commission or notifying customers of their intended action. Further, telematics carriers may negotiate with cellular carriers and may enter into voluntary contractual relationships to accommodate specific coverage needs. Finally, the Commission believes that the industry and not regulation should dictate technical specifications wherever possible. Given these reasons, the Commission is not persuaded that it is necessary to retain this rule simply to ensure coverage for telematics subscribers attempting calls on the fringe of rural cell sites.

G. Assignment of System Identification Numbers

33. 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 their roaming status. 47 CFR 22.941. In the *NPRM,* the Commission proposed to no longer consider SIDs as a term of the cellular license and to remove the requirement in § 22.941 of its rules that cellular licensees notify the Commission of the use of additional SIDs. The Commission proposed to retain portions of that rule that provide that a cellular system may transmit another system's SID only if that system consents to such use.

34. The Commission concludes that it is not necessary in the public interest to retain the current cellular SID rules as set out in § 22.941 of its rules as there is no public policy rationale that SIDs must be a term of cellular authorizations. There are no SID rules for PCS, SMR, or other CMRS, and this administrative function is carried out successfully within those radio services by the private sector without Commission involvement. Further, the Commission removes the SID rule in its entirety, including the ''consent for use'' portion of the rule (*i.e.* allowing the usage of another system's SID only pursuant to consent). The Commission finds no reason to retain a portion of the rule or intervene when the private sector has shown, as in the case of PCS, for example, that it is capable of coordinating these types of administrative functions on its own. For the reasons stated above, the Commission is eliminating the SID rule in favor of administration of this function by the private sector. In eliminating this rule, the Commission must take certain steps to provide a smooth transition of the SID administration function to the private sector. These steps include identifying a party or parties to administer the function, transitioning the Commission's SID database to the party(s), and publicizing the change to the cellular industry. Therefore, the Commission authorizes and directs the Wireless Telecommunications Bureau to take all necessary steps to privatize this function.

H. Determination of Cellular Geographic Service Area

35. Section 22.911(a) of the Commission's rules sets forth a standardized method for determining the CGSA of a cellular system. A system's CGSA is defined as the geographic area served by the system, within which that system is entitled to protection and adverse effects are recognized for the purpose of determining whether a petitioner has standing. *See* 47 CFR 22.99. Cellular licensees must provide the Commission with certain technical parameters describing each cell site that makes up the external boundary of its system. These technical parameters (latitude, longitude, height above average terrain, and power), or in some cases, an alternative study, are used to determine the service area boundary (SAB) for each cell site. In this vein, the

geographic area within the aggregated SAB contours of a system (excluding areas outside the market boundary) is its CGSA. The method for determining the CGSA uses a general mathematical formula to calculate distances from the cell site along the cardinal radials to the SAB of each cell in the system. *See* 47 CFR 22.911, 22.912.

36. Section 22.911(b) 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. In adopting this alternative approach for calculating the CGSA, the Commission stated that alternative showings would only be accepted where the change to the CGSA is substantial and justified by unique or unusual circumstances, or where the SAB formula is clearly inapplicable. 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 dBuV/m field strength contour and the distances along cardinal radials to that contour. In describing how these distances to the median 32 dBuV/m contours must be used to determine the CGSA, paragraphs (b)(1) and (b)(3) of § 22.911 use the term SAB in several places. In the Commission's experience, this occasionally leads licensees to believe that they may employ the alternative methods to determine an SAB, as opposed to the CGSA, and then to use that ''alternate'' SAB in connection with various other rules such as the SAB extension rule or the traffic capture protection rule. In the *NPRM,* the Commission sought to clarify that the SAB of a cell derived using the standard method and the 32 dBuV/m contour that is used when preparing an alternative CGSA determination are different and not interchangeable. Accordingly, the Commission proposed to reword paragraphs (b)(1) and (b)(3) of § 22.911 to replace the word ''SAB'' with ''32 dBuV/m contour.''

37. The Commission adopts the rule clarification as proposed. In setting out the standard method, the Commission sought to establish a method that would simplify and remove a measure of uncertainty from the process of calculating and plotting CGSAs. The Commission sought to prevent disagreements between parties and the Commission regarding the accuracy of methods used by parties to predict or measure actual coverage for a particular location or terrain. Although there may be certain situations in which it may not represent actual coverage as closely as other methods, the standard formula provides a simple and consistent method by which to calculate cellular system coverage. The Commission's decision to clarify § 22.911(a) is consistent with its original intent in limiting the scope of alternate CGSA showings, *i.e.*, to expedite Commission processing of applications, thereby avoiding delays in the provision of cellular service to the public. The Commission does not foreclose, however, the ability of carriers in adjacent markets to agree to the use of an alternative propagation method, or to enter into contract agreements, pursuant to § 22.912, to allow SAB extensions calculated using the standard method into the other carrier's CGSA. The Commission believes that a process that affords carriers flexibility and permits parties to enter into contractual agreements will expedite service to subscribers, in comparison to a more protracted process whereby parties must present and argue the merits of conflicting engineering studies before the Commission.

I. Service Commencement and Construction Periods

38. Section 22.946, which sets out construction requirements relating to the deployment of new cellular systems, was previously amended in the Commission's *Universal Licensing System* proceeding. *See* In the Matter of Biennial Regulatory Review—Amendment of parts 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, WT Docket No. 98–20, Report and Order, 63 FR 6894 (Dec. 14, 1998) (*ULS Report and Order*). In implementing the *ULS Report and Order,* however, a table entitled ''H–1—Commencement of Service,'' was inadvertently deleted from § 22.946. Because certain information in the table was out-dated, the Commission proposed to correct § 22.946 by re-inserting the table, and to reflect updated information. The Commission also proposed to delete the final phrase of § 22.946(b), which prohibits cellular system licensees from ''intentionally serv[ing] only roamer stations.''

39. As consumers now have numerous mobile telephony offerings from which to choose, the concern regarding lack of competition no longer exists. Accordingly, the Commission will remove the provision that prohibits service only to roamer stations. Further, after the Commission adopted the *NPRM,* it issued a *Report and Order* in WT Docket No. 97–112 regarding cellular service in the Gulf of Mexico. *See* In the Matter of Cellular Service and Other Commercial Mobile Radio Services in the Gulf of Mexico, WT Docket No. 97–112, Amendment of part 22 of the Commission's Rules to Provide for Filing and Processing of Applications for Unserved Areas in the Cellular Service and to Modify Other Cellular Rules, CC Docket No. 90–6, *Report and Order,* 67 FR 9596 (March 4, 2002). In that proceeding, the Commission amended § 22.946 to reflect construction requirements for licensees in the Gulf of Mexico. Because it was necessary to amend § 22.946 to add the Gulf of Mexico construction requirements, the Commission decided to re-insert the inadvertently omitted Table H–1 at that time. The Commission notes that § 22.946 was amended to re-insert Table H–1 after the comment period in this proceeding had run, and that no one filed comments opposing that correction to this rule section.

J. Incidental Services Rule

40. Section 22.323 of the Commission's rules authorizes carriers to provide other communications services incidental to the primary public mobile service, provided certain conditions are met. In general, § 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 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. 47 CFR 22.323. In the *NPRM,* the Commission proposed to eliminate these conditions, and sought comment on whether it should also remove the remaining provision (*i.e.*, the statement that incidental services are permitted) as it applies to some or all part 22 services.

41. In a related matter, the *NPRM* also sought comment on FreePage Corporation's (FreePage) request that § 22.323 be amended to include the ''Limited Program Distribution Service'' (LPDS) service proposed by FreePage as an ''incidental service.'' In February 2000, the Wireless Telecommunications Bureau sought comment on a petition for rulemaking filed by FreePage requesting that the Commission amend § 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.

42. In the *NPRM,* the Commission invited comments on whether spectrum assigned to CMRS licensees could be used for the LPDS service proposed by FreePage. In particular, the Commission sought comments addressing whether the service proposed by FreePage is in fact a broadcast service, and, therefore, whether it would need to change existing spectrum allocation and service rules to permit LPDS service in spectrum assigned to CMRS licensees. More generally, the Commission also requested comments on what effects, if any, the implementation of FreePage's LPDS proposal would have on other authorized service offerings or services proposed in pending Commission rulemaking proceedings. Finally, the Commission solicited 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.

43. The Commission agrees with commenters that the imposing of conditions on the provision of incidental services by part 22 licensees is 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, the Commission concludes that this rate restriction is unnecessary, as any dissatisfied subscriber will have the option of switching to a competing carrier. The Commission further concludes that there is no reason to retain the remainder of the rule in the absence of those conditions. The Commission recognizes that some commenters advocated that it retain this portion of the rule on the grounds that having an express provision for incidental services codified in the rules 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.

44. With respect to FreePage's request to include a provision in § 22.323 that LPDS is an incidental service within the meaning of the rule, the Commission denies the request but grants alternative relief as follows. First, the Commission finds that it is unnecessary to determine whether FreePage's LPDS service constitutes an incidental service because FreePage may provide any form of fixed or mobile service under a part 22 authorization, provided only that its service does not constitute broadcasting. Second, to the extent FreePage's intended service offering constitutes broadcast service, the Commission finds that it is in the public interest to provide FreePage with the flexibility to provide its LPDS service pursuant to the terms of a developmental authorization. The Commission therefore directs Commission staff to waive the allocation if necessary in order to process the developmental license. Accordingly, FreePage may file an application for developmental authority with the Commission, which will be processed by the Wireless Telecommunications Bureau pursuant to the regulations set forth in § 22.401 of the Commission's rules. The Commission believes that a developmental license will afford FreePage the opportunity to assess consumer demand for its LPDS service offering.

K. Cellular Anti-Trafficking Rules

45. In the *NPRM,* the Commission noted that §§ 22.937, 22.943, and 22.945 were originally adopted to prevent speculation and trafficking in cellular licenses that were awarded by random selection. Because the Commission is now required to resolve mutually exclusive applications for initial cellular licenses through competitive bidding, it proposed to eliminate or substantially modify rule §§ 22.937, 22.943, and 22.945 as they are now unnecessary and no longer serve the public interest.

46. In adopting § 22.937, the Commission stated that it was requiring applicants to show financial qualification because of the large capital investment required to finance the complex and sophisticated technology associated with cellular operations. The Commission noted that cellular service was viewed as a relatively high-cost business venture because the service was still at an early stage of development. The Commission concludes that § 22.937 is no longer necessary as a general matter because the cellular radiotelephone service has matured and there are two authorized cellular carriers in all MSAs and virtually all RSAs. The Commission's cellular rules have been amended to permit interested parties to file applications for any areas not serviced by cellular carriers after the expiration of the applicable build-out period, and such applications are now subject to competitive bidding. Although it proposed to retain § 22.937 in the context of comparative renewal proceedings, the Commission finds that the rule is not necessary. The Commission has the authority to seek financial qualification information in a comparative renewal proceeding if it so chooses. The Commission therefore eliminates § 22.937 in its entirety.

47. The Commission similarly concludes that § 22.943 should be removed as unnecessary. The Commission's anti-trafficking rules were developed to deter speculation on cellular licenses. In setting out the anti-trafficking rules, the Commission sought to balance the public interest in liberal transferability of licenses with a means to deter insincere applicants from speculating on unbuilt facilities. Accordingly, the Commission proposed to eliminate § 22.943 to the extent that it prohibits trafficking in cellular licenses and precludes unserved area licensees from assigning or transferring an authorization until they have provided service to subscribers for at least one year. The Commission noted that the cellular service-specific anti-trafficking rule set out in § 22.943 may be unnecessary and duplicative as there are similar provisions in part 1 of its rules that are applicable to all wireless services.

48. While § 22.943 was useful in deterring speculation during the time period in which it used lotteries to select licensees, the Commission now uses competitive bidding to resolve mutual exclusivity. Mutually exclusive applications for licenses in other CMRS are also required to be resolved through the use of competitive bidding. Yet in those cases, the Commission does not impose service-specific anti-trafficking rules, or mandate specific holding periods prior to assignment or transfer of licenses acquired through competitive bidding. Accordingly, the Commission eliminates the portions of § 22.943 that prohibit trafficking in cellular licenses, and that require carriers who acquired unserved area licenses to provide service to subscribers for at least one year before such licenses may be assigned or transferred. The Commission further finds that the cellular service-specific anti-trafficking rule set out in § 22.943 is unnecessary, given the presence of the anti-trafficking provisions of § 1.948(i), which is applicable to all services. *See* 47 CFR 1.948(i).

49. The Commission's conclusion to remove service-specific anti-trafficking provisions of § 22.943 extends to § 22.943(c), which states that it will not

accept applications for consent to assign or transfer a cellular authorization acquired by a 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. *See* 47 CFR 22.943(c). The Commission noted in the *NPRM* that it would leave intact portions of § 22.937 relating cellular renewal proceedings, but requested comment on whether to retain § 22.943(c). Although § 22.943(c) also relates to cellular renewals, it is nonetheless an anti-trafficking provision and should be removed as duplicative of rule § 1.948(i).

50. Similarly, because § 22.945 was adopted for the sole purpose of preventing lottery system abuses, the Commission's obligation to resolve mutual exclusivity through competitive bidding also makes this rule unnecessary. An applicant filing more than one application for a specific unserved area under the current rules would have no advantage over other applicants seeking authorization to serve the same geographic area.

L. Other Rule Changes Recommended by Commenters

51. In the *NPRM,* the Commission not only sought comment on its specific proposals, but also invited comment on whether it should modify any additional provisions of its part 22 rules as a result of competitive or technological developments.

1. Overhaul of the Unserved Area Licensing Rules

52. Section 22.941 sets forth the ''unserved area'' licensing process for the cellular service. Certain carriers recommend that the Commission replace the unserved area licensing process. 47 CFR 22.941. In general, the commenters point out that the current site-by-site approach requires pre-approval each time a licensee wishes to expand its system. Proposals by two of the commenters favor a one-time process that licenses the remaining unserved areas, so that pre-approval of future expansions is no longer necessary. One recommendation proposes that the Commission abandon the per-application approach of the unserved area rules and instead: (1) Automatically incorporate areas of 50 square miles or less into the CGSAs of the first-authorized incumbent adjoining the unserved area; and (2) open a filing window for all unserved areas exceeding 50 square miles, resulting in either the incorporation of the unserved area into the incumbent carrier's CGSA, or an auction among mutually exclusive applicants. Another proposal recommends eliminating filings for unserved areas of less than 50 square miles that are completely surrounded by an incumbent's CGSA (*i.e.*, the incumbent is the only one eligible under the rules to file an application), while another recommends that incumbents should be able to cover unserved areas of less than 50 square miles on a secondary basis without having to obtain prior Commission approval.

53. The Commission declines to adopt such changes. Suggestions made by commenters constitute a fundamental change to its cellular service licensing model, and, as such, are beyond the scope of this proceeding. The Commission also notes that under its current process, the Commission receives approximately 40 unserved area applications each month, disposing of each usually within 45–60 days. Given that so few unserved area applications are filed with the Commission today and are processed quickly, it questions whether the burdens on all licensees of a major overhaul at this point warrants any corresponding benefits. In considering the wisdom of making significant changes within the cellular unserved licensing context, the Commission would need to identify an alternative approach that is administratively efficient, less complicated than the current approach, represents an improvement over the status quo in terms of speed of licensing and convenience for licensees, and continues to provide small as well as large carriers with reasonable opportunities to serve currently unserved areas. Given that the current system results in little administrative delay, the Commission does not find that commenters have done so. Moreover, commenters have failed to adequately address construction, interference protection, and market structure issues that would need to be addressed under a new processing regime. The Commission believes that a more complete record must be developed before any Commission action is warranted.

2. CGSA Expansion Notifications

54. One commenter seeks to remove the requirement that licensees notify the Commission of each CGSA expansion for markets within the initial five-year construction period. Currently, § 22.165(e) requires licensees to notify the Commission within 15 days of expanding their CGSAs, even during the initial five-year construction period. Cellular licensees are free to construct facilities anywhere within their markets without the possibility of competing applications during the initial construction period. The proposal would have the Commission require the licensee to file a system information update at the end of the five-year period, *i.e.*, identify the areas that are served and unserved in preparation for the unserved area Phase I process.

55. The Commission agrees that generally it and other licensees have no interest in knowing the precise location of an initial licensee's CGSA until the end of the initial five-year period. At that point, the CGSA must be a matter of record available to potential Phase I unserved area applicants as well as the Commission's staff in order to process the unserved area applications. Presently, there are only eleven cellular markets that are still within the initial five-year construction period. In addition, the Commission will soon issue initial licenses in three of the remaining RSAs. Even though very few licensees will be in a position to take advantage of this change, the Commission will revise the rule substantially as requested. Therefore, the Commission will revise § 22.165(e) to require licensees in their initial five-year build-out period to notify the Commission of cell sites making up their CGSAs once yearly on the anniversary of license grant, rather than requiring licensees to file notifications within 15 days of initiating service at each site. The Commission concludes that revising this requirement to provide for an annual reporting obligation will minimize unnecessary regulatory burdens for initial cellular licensees while providing a reasonably up-to-date source of data for other cellular licensees and Commission staff.

3. Contract Extension Clarification

56. Section 22.912 of the Commission's rules provides that any SAB extensions into an adjacent carrier's CGSA requires the consent of the adjacent carrier. One commeter requested the Commission to clarify that, in the case where an adjacent carrier has already consented to analog SAB extensions into its CGSA, a separate agreement is not required in order to extend the SAB of a digital signal into the CGSA so long as it does not exceed boundary established by the initial analog agreement. The Commission clarifies that its rules do not limit the scope of private, contractual agreements between cellular licensees in this case. To the extent that a carrier enters into an agreement that provides for extensions of both analog and digital signals into an adjacent carrier's CGSA, the Commission's rules

do not require separate notification to the Commission of such extensions; a single notification of the scope of that extension will be adequate notice.

III. Administrative Matters

A. Paperwork Reduction Act Analysis

57. The actions taken in this *Report and Order* have been analyzed with respect to the Paperwork Reduction Act of 1995, Public Law No. 104–13, and found to impose no new or modified recordkeeping requirements or burdens on the public.

B. Final Regulatory Flexibility Analysis

58. As required by the Regulatory Flexibility Act (RFA), an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in the *NPRM*. The Commission sought written public comment on the proposals in the *NPRM*, including comment on the IRFA. The comments received are discussed below. The Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.

Need for, and Objectives of, the Order

59. In the Telecommunications Act of 1996, Congress added sections 11 and 202(h) to the Communications Act of 1934, as amended, requiring the Commission to (1) review biennially its regulations that pertain to the operations or activities of telecommunications service providers, and (2) determine whether those regulations are no longer necessary in the public interest as a result of meaningful economic competition. 47 U.S.C. 11(b). Following such review, the Commission is required to modify or repeal any such regulations that are no longer in the public interest. Accordingly, as part of the Commission's year 2000 Biennial Review of regulations, the *Report and Order* amends part 22 of the Commission's rules by modifying or eliminating various rules that have become outdated due to technological change, increased competition in the Commercial Mobile Radio Services (CMRS) market, or supervening rules.

60. In particular, the *Report and Order* removes the cellular analog requirement after a five-year transition period and requires reports by certain CMRS licensees and other entities showing the level of access to mobile telephony had by persons with hearing disabilities or those using emergency-only phones. The *Report and Order* also removes the manufacturing requirements governing Electronic Serial Numbers (ESNs) in cellular telephones, as well as modifying several other technical rules. In the same vein, the Commission found some of the cellular anti-trafficking rules to be outdated because 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. The Commission also reevaluated certain other part 22 rules that apply both to cellular and to other CMRS, specifically § 22.323, which imposes conditions on the provision of ''incidental'' services by Public Mobile Services providers.

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

61. Although the Commission received numerous comments in response to the *NPRM*, it received no comments in response to the IRFA. However, as described below, the Commission nonetheless considered potential significant economic impacts of the rules on small entities.

62. Analog Compatibility Requirement. Although the comments suggest that elimination of the analog requirement would not affect the majority of wireless consumers that are already using digital service, some commenters contend that there are particular classes of consumers and service providers that would be harmed by elimination of the rule. These commenters focus particularly on the possibility that, if the rule were eliminated, cellular carriers in major markets would be likely to drop analog service in those markets to provide more capacity for their digital systems. Commenters argue that, at the very least, the requirement should be eliminated only after a transition period. The unavailability of analog service in these markets, commenters contend, would have an adverse impact on the following groups:

63. *Small and regional carriers.* Small and regional carriers argue that, if the analog requirement is eliminated, they will be forced to transition from solely analog services to digital in order to ensure that their customers will have service outside of their home market, as well as to continue to provide roaming service to customers of the large nationwide carriers. They argue that eliminating the analog requirement will force them to bear the financial burden of immediately converting to digital, regardless of consumer demand within their particular markets. Further, these commenters assert that a decision to adopt any particular digital technology will be dictated by a small/regional carrier's larger roaming partner. Moreover, commenters argue that, in certain areas, a small or regional licensee may be positioned between major markets whose licensees have chosen incompatible digital technologies, forcing it to choose between roaming partners and multiple digital standards in the absence of analog technology. These commenters argue that, in the absence of interoperable digital technology, the analog requirement should not be eliminated.

64. *Analog-only consumers.* It is estimated that there are approximately 26 million analog-only subscribers. These include consumers who use analog-only handsets because their carriers do not provide digital service (mainly rural cellular carriers) as well as subscribers who have purchased 911-only mobile phones. Remaining analog-only users are non-subscribers, such as certain elderly or victims of domestic violence, who have received recycled analog equipment for use for emergency purposes. Presently, a customer using analog-only equipment can roam on other cellular networks in the event the consumer is outside of his/her home market. Commenters argue that these cellular customers would lose the ability to roam with their current analog-only handset if the analog standard is eliminated and both carriers within a given area shut down their analog networks.

65. *Telematics.* Telematics services providers have, for the most part, relied on analog technology to ensure interoperable communications nationwide. Telematics advocates assert that analog service is vital, due to the ambulant nationwide nature of telematics technology. It is argued that digital systems cannot yet transmit both voice and data on the same call, a feature that commenters argue is important for telematics providers. These commenters assert that the interoperability problem is particularly difficult for telematics devices because manufacturers must choose a technology that is embedded in a vehicle that will have a useful life of ten or more years. Moreover, these providers assert that, unlike the typical cellular subscriber who can readily switch to digital handsets if necessary, the development cycle (the length of time necessary to design equipment, test, and install in compatible vehicles) and hardware basis of telematics-equipped vehicles prevents users of such services from quickly and easily migrating to a new technology. These providers argue that telematics devices are imbedded into vehicles in such a

way as to make it cost prohibitive to retrofit legacy vehicles with analog-based equipment. Given the development cycles and life spans of such vehicles (often longer than ten years), commenters argue that the immediate elimination of the analog rule would be a setback for telematics providers and their customers. Instead, certain telematics providers argue that if the analog requirement must be eliminated, the industry must be given a reasonable transition period, and suggest that such a transition period would be ten years.

66. *Persons with hearing disabilities.* Persons with hearing disabilities desiring to use wireless devices must currently rely on analog service or the small number of digital phones that are currently compatible with only certain hearing aids. Unlike analog handsets, digital technologies have been shown to cause interference to hearing aids and cochlear implants. Accessibility advocates and those with hearing disabilities note that market forces (*e.g.* need for spectrum efficiency, enhanced services such as wireless data) make a shift to digital technology inevitable. These commenters argue that at this point, however, due to the lack of hearing aid-compatible digital equipment, persons with hearing disabilities must rely on analog equipment to access mobile telephony, thereby settling for inferior sound quality, fewer service options, and higher prices. Commenters argue that, because persons with hearing disabilities account for only a small percentage of mobile telephony users, there are not sufficient economic incentives for carriers to expend resources to ensure that these individuals have access to wireless service. Accessibility advocacy groups maintain that the analog requirement should not be eliminated (if at all) until new digital services are accessible and readily available to persons with hearing disabilities.

67. Electronic Serial Number. Numerous commenters support the proposal to remove § 22.919. Commenters agree that the industry is capable of developing anti-fraud measures on its own and that the rule prevents carriers from deploying advanced technologies such as smart cards. One commenter, however, supports elimination of the detailed design requirements in the rule, but would keep the requirement that cellular telephones have a unique ESN. Further, two other commenters argue that removing the ESN rule would be disruptive to other aspects of cellular service. Alternatively, another commenter supports the Commission's proposal, but does so because it believes that it should be legal to clone cellular telephones (in particular, as a small business activity) for customers who are already legitimate cellular subscribers, as opposed to those who are not subscribers.

68. Channelization Requirements. A majority of the commenters addressing this issue support the Commission's proposal. One commenter, however, opposes the elimination of the channelization plan rule prior to the elimination of the analog service requirement, stating that some cellular carriers might start providing analog service using a different and incompatible analog channel plan, which would leave some subscribers without roamer service. Another commenter also opposes removal of the channelization plan because it believes that the rule provides a legal basis for ''frequency protection'' from adjacent systems using digital technologies.

69. Modulation Requirements and In-band Emissions Limitations. The Commission received a number of comments supporting various aspects of its proposal to a number of technical specifications for, *inter alia,* the performance of audio filter and deviation limiter circuitry in analog cellular telephones, and adjustment of the modulation levels in analog cellular telephones. One commenter states that § 22.915 should be eliminated because the rule's requirements are specific to the AMPS analog compatibility standard, and, as such, are contrary to the goal of allowing carriers to implement the technologies of their choice, and stifles the development of technologically advanced systems. Certain commenters, however, object to the specific language the Commission proposed for the out-of-band emission limit measurement rule in § 22.917. These parties point out that implementation of the measurement resolution bandwidth specified in the proposed rule would have the effect of imposing a stricter out-of-band emission limit than that which currently applies. A few commenters submitted alternative language which more accurately reflect the Commission's intended goal of harmonizing certain procedures in the wireless communications services (WCS), personal communications services (PCS) and cellular services.

70. Wave Polarization Requirement. A majority of the commenters addressing this issue generally support relaxation of the rule requiring electromagnetic waves radiated by transmitters to be vertically polarized because of the technical flexibility it will provide cellular carriers. One commenter notes that flexibility in polarization is beneficial in order to reduce multipath fading and to improve signal quality, while another points out that eliminating the vertical polarization requirement will permit carriers to reduce the antenna space needed on towers, thereby benefiting carriers as well as the public by fostering more aesthetically pleasing antenna sites, reducing the number of antennas required at a particular site (thereby reducing the need for local zoning clearance in many cases), permitting collocation of multiple carriers' facilities on the same tower, and reducing site deployment costs.

71. One commenter, however, objects to relaxing the rule on the basis that non-vertical antenna polarization could result in reduced RF coverage for its end users and impair telematics' ability to provide geographic location information for emergency services. Specifically, the commenter notes that it utilizes analog cellular technology to provide location-based telematics service offerings, such as automatic crash notification, through systems embedded in vehicles of certain automobile manufacturers. Likewise, another commenter objects to relaxing the requirement because of the ''isolation'' it provides to cellular systems from co-channel and adjacent-channel transmitters.

72. Assignment of System Identification Numbers. Commenters generally support the proposal to eliminate the procedures and rules set forth in § 22.941 by which the Commission administers cellular system identification numbers (SIDs). The commenters agree that there is no regulatory purpose in retaining SIDs as a term of cellular licenses. As commenters point out, there are no SID rules for PCS, SMR, or other CMRS, and this administrative function is carried out successfully within those radio services by the private sector without Commission involvement.

73. Determination of Cellular Geographic Service Area. Several cellular carriers oppose the Commission's intent to clarify the language in § 22.911(b) regarding the term ''SAB'' (service area boundary) in situations in which a carrier employs alternative methods to calculate the CGSA of its system. One commenter advocates that the Commission in fact allow alternative propagation methods to be used for evaluating signal extensions into adjacent systems, in lieu of the formula in § 22.911(a), and another commenter argues that when a carrier has determined its CGSA by use of an alternative method, it is ''illogical

and inconsistent'' to require that cell SABs be used for all other purposes.

74. Incidental Services Rule. Commenters generally agree that the Commission should modify § 22.323 of its rules that permits carriers to provide other communications services incidental to the primary public mobile service. Commenters, on the other hand, believe that the provision in § 22.323 that states that incidental services are permitted should be retained. Several of the carriers addressing this issue point out that an 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.

Description and Estimate of the Number of Small Entities to which the Rules Will Apply

75. The RFA directs agencies to provide a description of, and where feasible, an estimate of the number of small entities that may be affected by the proposed rules, if adopted. 5 U.S.C. 603(b)(3). The RFA generally defines the term ''small entity'' as having the same meaning as the terms ''small business,'' ''small organization,'' and ''small governmental jurisdiction.'' 5 U.S.C. 601(6). In addition, the term ''small business'' has the same meaning as the term ''small business concern'' under the Small Business Act. 5 U.S.C. 601(3). 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 Small Business Administration (SBA). 15 U.S.C. 632.

76. This *Report and Order* results in rule changes that could 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, changes to § 22.323 of the Commission's rules could 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 § 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. *See* 47 CFR 90.493(b). As this rulemaking proceeding may apply to multiple services, the Commission analyzes 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. The Commission will include a separate discussion regarding the number of small cellular equipment manufacturing entities that are potentially affected by the proposed rule changes.

77. Cellular Radiotelephone Service. The SBA has developed a small business size standard for small businesses in the category ''Cellular and Other Wireless Telecommunications.'' 13 CFR 121.201, North American Industry Classification System (NAICS) code 513322. Under that SBA category, a business is small if it has 1,500 or fewer employees. According to the Bureau of the Census, only twelve firms from a total of 1,238 cellular and other wireless telecommunications firms operating during 1997 had 1,000 or more employees. 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, the Commision notes that there are 1,807 cellular licenses; however, a cellular licensee may own several licenses. According to the most recent *Trends in Telephone Service* data, 806 carriers reported that they were engaged in the provision of either cellular service, PCS, or SMR telephony services, which are placed together in that data. *See Trends in Telephone Service,* Industry Analysis Division, Common Carrier Bureau, Table 5.3—Number of Telecommunications Service Providers that are Small Businesses (August 2001). The Commission has estimated that 323 of these are small under the SBA small business size standard. Accordingly, based on this data, the Commission estimates that not more than 323 cellular service providers will be affected by these revised rules.

78. 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. *See* Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, *Third Report,* FCC 98–91(rel. June 11, 1998). The Commission has estimated that as of January 1998, there were more than 600 paging companies in the United States. In the August 2001 *Trends in Telephone Service* data, 427 carriers reported that they were engaged in the provision of paging and messaging service; 407 of these firms identified themselves as having 1,500 or fewer employees. The Commission does 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 is unable at this time to estimate with precision the number of affected paging carriers that would qualify as small business concerns under its definition. However, the Commission estimates that the majority of existing paging providers qualify as small entities under its definition. Consequently, the Commission estimates that there are up to approximately 600 currently licensed small paging carriers that may be affected by the rule changes set out in the *Report and Order.* Further in December 2001, 182 bidders placed high bids for 5,323 geographic area paging licenses in Auction No. 40. Applications remain pending as of the release of this *Report and Order.* Thus, in addition to existing licensees, the rule changes adopted in the *Report and Order* could affect paging licenses won in Auction No. 40.

79. Air-Ground Radiotelephone Service. The Commission has not adopted a definition of small business specific to the Air-Ground radiotelephone service. Accordingly, the Commission uses the SBA definition applicable to radiotelephone companies, *i.e.*, an entity employing no more than 1,500 persons. There are approximately 24 licensees in the Air-Ground radiotelephone service, and the Commission estimates that almost all of them qualify as small entities under the SBA definition.

80. 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 less than ten licensees in this service. The Commission has not adopted a definition of small business specific to the Offshore Radiotelephone Service. Accordingly, the Commission uses the SBA definition applicable to radiotelephone companies, *i.e.*, an entity employing no more than 1,500

persons. The Commission assumes that all licensees in this service are small entities, as that term is defined by the SBA.

81. Rural Radiotelephone Service. The Commission has not adopted a definition of small entity specific to the Rural Radiotelephone Service. A significant subset of the Rural Radiotelephone Service is the Basic Exchange Telephone Radio Systems (BETRS). The Commission therefore uses 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 Rural Radiotelephone Service, and the Commission estimates that almost all of them qualify as small entities under the SBA definition.

82. Cellular Equipment Manufacturers. Some of the actions adopted in the *Report and Order* will also affect manufacturers of cellular equipment. The Commission does not know how many cellular equipment manufacturers are in the current market. The 1997 Economic Census provides that there were 1,089 communications-related equipment manufacturing companies as of 1997. This category includes not only cellular equipment manufacturers, but television and AM/FM radio manufacturers as well. Under SBA regulations, a ''radio and television broadcasting and wireless communications equipment manufacturing'' company, which includes not only U.S. cellular equipment manufacturers but also firms that manufacture radio and television broadcasting and other communications equipment as well as electronic components, must have a total of 750 or fewer employees in order to qualify as a small business concern. 13 CFR 121.201, NAICS code 334220. Although the exact number is unknown, the number of cellular equipment manufacturers is considerably lower than 1,089. U.S. Census Bureau, *1997 Economic Census, Manufacturing Subject Series,* at Table 3—Detailed Statistics by Industry: 1997, NAICS code 334220 (October 2000).

83. Broadband Personal Communications Service. The broadband PCS spectrum is divided into six frequency blocks designated A through F, and the Commission has held auctions for each block. The Commission has created a small business size standard for Blocks C and F as an entity that has average gross revenues of less than $40 million in the three previous calendar years. For Block F, an additional small business size standard for ''very small business'' was added and is defined as an entity that, together with their affiliates, has average gross revenues of not more than $15 million for the preceding three calendar years. These small business size standards, in the context of broadband PCS auctions, have been approved by the SBA. No small businesses within the SBA-approved small business size standards bid successfully for licenses in Blocks A and B. There were 90 winning bidders that qualified as small entities in the Block C auctions. A total of 93 ''small'' and ''very small'' business bidders won approximately 40% of the 1,479 licenses for Blocks D, E, and F. On March 23, 1999, the Commission reauctioned 347 C, D, E, and F Block licenses; there were 48 small business winning bidders. Based on this information, the Commission concludes that the number of small broadband PCS licensees will include the 90 winning C Block bidders and the 93 qualifying bidders in the D, E, and F blocks plus the 48 winning bidders in the re-auction, for a total of 231 small entity PCS providers as defined by the SBA small business standards and the Commission's auction rules. On January 26, 2001, the Commission completed the auction of 422 C and F Broadband PCS licenses in Auction No. 35. Of the 35 winning bidders in this auction, 29 qualified as ''small'' or ''very small'' businesses.

Description of Projected Reporting, Recordkeeping and Other Compliance Requirements

84. The Commission will require that, (1) three years from the effective date of this order and (2) four years from the effective date of this order, certain CMRS licensees and other entities file reports with the Commission. In the reports, the carrier must either certify that, within their own markets, there are, at the time of filing, hearing aid-compatible digital devices available to and usable by persons with hearing disabilities for use with that carrier's digital network, or, if no such equipment is available at the time of filing, describe the extent to which, by the end of the fifth year, digital equipment will be available to and usable by persons with hearing disabilities, and describe how the public is being informed of their availability. If upon review of the filings, the Commission determines that significant problems remain regarding access to mobile telephony by persons with hearing disabilities, the Commission may find that the analog requirement will be removed only for technologies where hearing aid-compatibility solutions are available, or that the sunset period will be extended for all carriers. Steps Taken to Minimize Significant Economic Impact on Small Entities, and Significant Alternatives Considered.

85. 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. *See* 5 U.S.C. 603.

86. Because several commenters argued that certain entities, such as persons with hearing disabilities and small and regional carriers, may be harmed by the immediate removal of the analog requirement, the Commission instituted a five-year transition period to ease the transition to digital technology. By establishing this five-year transition period, the Commission takes account of the potentially smaller resources available to small entities.

87. The *Report and Order* concluded that several of the Commission's technical and anti-trafficking cellular rules are 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 the incidental services rules will allow licensees in the part 22 services greater flexibility in the types of services they offer. The Commission notes that the intent underlying its actions is to lessen the levels of regulation, consistent with its mandate for undertaking biennial reviews. The Commission has therefore described, supra, actions intended to lessen the regulatory burden on carriers and equipment manufacturers, including small entities.

88. *Report to Congress:* The Commission will send a copy of the *Report and Order,* including the associated FRFA, in a report to be sent to Congress pursuant to the Congressional Review Act, *see* 5 U.S.C. 801(a)(1)(A). In addition, the Commission will send a copy of the *Report and Order*, including the associated FRFA, to the Chief Counsel for Advocacy of the Small Business Administration. A copy of the *Report*

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

IV. Ordering Clauses

89. Pursuant to the authority of sections 4(i), 7, 303(c), 303(f), 303(g), 303(r), and 332 of the Communications Act of 1934, as amended, 47 U.S.C. 154(i), 303(c), 303(f), 303(g), 303(r), and 332, the rule changes specified below are adopted.

90. The rule changes set forth below *will become effective* February 18, 2003.

91. Certain commercial mobile radio service carriers and other entities must submit reports regarding access to mobile telephony services by emergency-only consumers and persons with hearing disabilities at one and two years prior to the sunset of the rules requiring cellular carriers to provide analog service compatible with Advanced Mobile Phone Service (AMPS) specifications.

92. The Wireless Telecommunications Bureau is authorized to carry out such actions necessary to transfer the administration of cellular system identification numbers as identified herein.

Synopsis of the Second Report and Order

I. Background

93. In the *NPRM,* the Commission proposed to modify various general cellular service requirements set out in § 22.901 of the Commission's rules. First, the Commission proposed deleting current § 22.901(d), which addresses alternative cellular technologies. Because the rule is drafted as though the principal cellular technology is analog technology, the Commission therefore proposed deleting current § 22.901(d) and adding the following language to the 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.''

94. The Commission also proposed deleting certain §§ 22.901(a) and 22.901(b) of its rules. Section 22.901(a) requires that cellular licensees provide subscribers with information regarding the service area of the cellular provider. The Commission sought 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. The *NPRM* also requested 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. 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. *See* 47 CFR 22.901(b). The Commission proposed removing this requirement, noting that the rule does not provide any mechanism for ameliorating any instance of a lack of system capacity. The Commission also explained that, 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.

95. Further, the Commission proposed deleting the first sentence of the introductory paragraph, which provides that ''Cellular system licensees must provide cellular mobile radiotelephone service upon request to all cellular subscribers in good standing . . . .'' 47 CFR 22.901. The Commission also proposed removing the specific reference in the introductory paragraph that provides that a cellular system may terminate service when a subscriber ''operates a cellular telephone in an airborne aircraft.''

II. Discussion

96. First, the Commission concludes that the competitive state of the mobile telephony market renders unnecessary both § 22.901(d) to the extent it characterizes certain technologies as ''primary'' or ''alternative'' as well as the first sentence in the introductory paragraph of § 22.901 to the extent it requires licensees to ''provide cellular mobile radiotelephone service upon request to all cellular subscribers in good standing.'' The Commission deletes the existing text of § 22.201(d) (which implies that analog is the principal technology in use). The Commission adds a technologically-neutral statement to § 22.901: ''In providing cellular services, each cellular system may incorporate any technology that meets all applicable technical requirements of this part.'' Further, the Commission finds that the statement in the introductory paragraph about provision of service to ''cellular subscribers in good standing'' is unnecessary because, even in the absence of this rule, cellular service providers, like all common carriers, are required to comply with sections 201 and 202 of Title II of the Act. Those sections require cellular carriers to provide service upon reasonable request, to have charges, practices, classifications, and regulations that are just and reasonable, and to avoid unjust or unreasonable discrimination in their charges, practices, classifications, regulations, facilities, or services. Further, the Commission notes that there are no other comparable rule requirements placed on other CMRS licensees.

97. Second, the Commission finds that it is no longer necessary to require cellular carriers to provide subscribers with information regarding the service area of the provider and therefore delete § 22.901(a). While the Commission agrees that consumers should have access to information about carriers' service areas prior to purchasing wireless services, as well as while using the services, it finds that cellular carriers, as well as PCS and digital SMR carriers are already making this information available at retail outlets, as well as via the internet. The Commission notes that PCS and digital SMR providers are doing so without any comparable regulatory requirement, presumably because consumers demand this information. Notably, the Commission believes the rule is no longer necessary because, even in the absence of the rule, cellular carriers will continue to make this information available while marketing their services in today's competitive marketplace.

98. Third, the Commission finds that the current level of competition renders unnecessary the provision in § 22.901(b) that carriers must notify the Commission in the event that a subscriber's request for service is denied due to lack of capacity. As a threshold matter, the Commission is unaware of any cellular licensee having filed such a notification with the Commission. The Commission notes that carriers must provide sufficient capacity for analog service in instances where it is required. In fact, revised § 22.901(b)(2) states in part that ''[c]ellular licensees must allot sufficient system resources such that the quality of AMPS provided, in terms of geographic coverage and traffic capacity, is fully adequate to satisfy the concurrent need for AMPS availability.'' The Commission believes that this rule provision, combined with the choices of wireless services available to consumers today, will ensure that consumers of analog services will continue to receive adequate service even in the absence of the notification requirement.

99. Finally, the Commission concludes that it is unnecessary to retain the provision in the introductory paragraph to § 22.901 stating that a carrier may terminate service to a customer who operates a cellular telephone while on board an airborne aircraft. The Commission finds that there is no basis to retain this provision

because its rules already explicitly prohibit operation of cellular telephones on board airborne aircraft, and a cellular licensee would be within its obligations under sections 201 and 202 of the Act in terminating the service of customers who violate the Commission's rules. Further, such a rule could be misinterpreted to limit a cellular or other CMRS licensee's ability to terminate service to customers in the case of other types of rule violations. Therefore, the Commission finds that an express condition regarding airborne operation is unnecessary and potentially confusing to licensees.

III. Administrative Matters

A. Paperwork Reduction Act Analysis

100. The actions taken in the *Second Report and Order* have been analyzed with respect to the Paperwork Reduction Act of 1995, Public Law No. 104–13, and found to impose no new or modified recordkeeping requirements or burdens on the public.

B. Final Regulatory Flexibility Analysis

101. As required by the Regulatory Flexibility Act (RFA), an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in the *NPRM*. The Commission sought written public comment on the proposals in the *NPRM,* including comment on the IRFA. The comments received are discussed below. The Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.

Need for, and Objectives of, the Order

102. As part of the Commission's year 2000 Biennial Review of regulations, the *Second Report and Order* amends part 22 of the Commission's rules by modifying or eliminating various rules that have become outdated due to technological change, increased competition in the Commercial Mobile Radio Services (CMRS) market, or supervening rules.

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

103. A number of commenters argue that certain portions of § 22.901 should be removed as outdated, duplicative, and unnecessary. Other commenters, however, argued that the Commission should retain the requirement in § 22.901(a) requiring cellular licensees to provide service area a information to potential customers. They argue that consumers require access to this information in order to make sound choices when purchasing wireless services. Likewise, other commenters urge the Commission to retain the requirement in § 22.901(b) requiring cellular licensees to notify the Commission in the event a consumer's request for service is denied due to lack of capacity. They argue that eliminating the rule may lead to cellular carriers not providing sufficient capacity for analog services going forward.

Description and Estimate of the Number of Small Entities To Which the Rules Will Apply

104. Cellular Radiotelephone Service. The SBA has developed a small business size standard for small businesses in the category ''Cellular and Other Wireless Telecommunications.'' 13 CFR 121.201, North American Industry Classification System (NAICS) code 513322. Under that SBA category, a business is small if it has 1,500 or fewer employees. According to the Bureau of the Census, only twelve firms from a total of 1,238 cellular and other wireless telecommunications firms operating during 1997 had 1,000 or more employees. 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, the Commision notes that there are 1,807 cellular licenses; however, a cellular licensee may own several licenses. According to the most recent *Trends in Telephone Service* data, 806 carriers reported that they were engaged in the provision of either cellular service, PCS, or SMR telephony services, which are placed together in that data. *See Trends in Telephone Service*, Industry Analysis Division, Common Carrier Bureau, Table 5.3—Number of Telecommunications Service Providers that are Small Businesses (August 2001). The Commission has estimated that 323 of these are small under the SBA small business size standard. Accordingly, based on this data, the Commission estimates that not more than 323 cellular service providers will be affected by these revised rules.

Description of Projected Reporting, Recordkeeping and Other Compliance Requirements

105. None.

Steps Taken To Minimize Significant Economic Impact on Small Entities, and Significant Alternatives Considered

106. The *Second Report and Order* concluded that certain provisions of § 22.901 are unnecessary in light of meaningful economic competition or technological advances. Therefore, modifying or eliminating these provisions 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.

Federal Rules That May Duplicate, Overlap or Conflict With the Proposed Rules

107. None.

108. *Report to Congress:* The Commission will send a copy of the *Second Report and Order,* including the associated FRFA, in a report to be sent to Congress pursuant to the Congressional Review Act, *see* 5 U.S.C. 801(a)(1)(A). In addition, the Commission will send a copy of the *Second Report and Order,* including the associated FRFA, to the Chief Counsel for Advocacy of the Small Business Administration. A copy of the *Second Report and Order* and FRFA (or summaries thereof) will also be published in the **Federal Register**. *See* 5 U.S.C. 604(b).

List of Subjects

47 CFR part 22

Communications common carriers, Communications equipment , Incorporation by reference, Reporting and recordkeeping requirements.

47 CFR part 24

Communications common carriers.

Federal Communications Commission.

Marlene H. Dortch,

Secretary.

Rule Changes

For the reasons discussed in the Preamble, the Federal Communications Commission amends 47 CFR part 22 as follows:

PART 22—PUBLIC MOBILE SERVICES

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 22.165 is amended by revising paragraph (e) to read, as follows:

§ 22.165 Additional transmitters for existing systems.

* * * * *

(e) *Cellular radiotelephone service.* During the five-year build-out period, the service area boundaries of the additional transmitters, as calculated by the method set forth in § 22.911(a), must remain within the market, except that the service area boundaries may extend beyond the market boundary into the area that is part of the CGSA or is already encompassed by the service area boundaries of previously authorized

facilities. After the five-year build-out period, the service area boundaries of the additional transmitters, as calculated by the method set forth in § 22.911(a), must remain within the CGSA. Licensees must notify the Commission (FCC Form 601) of any transmitters added under this section that cause a change in the CGSA boundary. The notification must include full size and reduced maps, and supporting engineering, as described in § 22.953(a)(1) through (3). If the addition of transmitters involves a contract service area boundary (SAB) extension (*see* § 22.912), the notification must include a statement as to whether the five-year build-out period for the system on the relevant channel block in the market into which the SAB extends has elapsed and whether the SAB extends into any unserved area in the market. The notification must be made electronically via the ULS, or delivered to the filing place (*see* § 1.913 of this chapter) once yearly during the five-year build-out on the anniversary of the license grant date.

* * * * *

§ 22.323 [Removed]

3. Section 22.323 is removed.

4. 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.

§ 22.377 [Amended]

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

6. Section 22.901 is revised 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.

(a) 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.

(b) Until February 18, 2008, each cellular system that provides two-way cellular mobile radiotelephone service must—

(1) Maintain the capability to provide compatible analog service (''AMPS'') to cellular telephones designed in conformance with the specifications contained in sections 1 and 2 of the standard document ANSI TIA/EIA–553–A–1999 Mobile Station—Base Station Compatibility Standard (approved October 14, 1999); or, the corresponding portions, applicable to mobile stations, of whichever of the predecessor standard documents was in effect at the time of the manufacture of the telephone. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of the standard may be purchased from Global Engineering Documents, 15 Inverness Way East, Englewood, CO 80112–5704 (or via the internet at *http://global.ihs.com).* Copies are available for inspection at the Federal Communications Commission, 445 12th Street, SW, Washington, DC 20554, or the Office of the Federal Register, 800 North Capitol Street, NW., Suite 700, Washington, DC.

(2) Provide AMPS, upon request, to subscribers and roamers using such cellular telephones while such subscribers are located in any portion of the cellular system's CGSA where facilities have been constructed and service to subscribers has commenced. *See* also § 20.12 of this chapter. Cellular licensees must allot sufficient system resources such that the quality of AMPS provided, in terms of geographic coverage and traffic capacity, is fully adequate to satisfy the concurrent need for AMPS availability.

7. Section 22.905 is revised to read as follows:

§ 22.905 Channels for cellular service.

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.

8. Section 22.911 is amended by revising the first sentence in 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 dBuV/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 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). * * *

* * * * *

§ 22.915 [Removed]

9. Section 22.915 is removed.

10. 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 these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. In the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (*i.e.* 100 kHz or 1 percent of emission

bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

(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.

§ 22.919 [Removed]

11. Section 22.919 is removed.

12. Section 22.921 is revised 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 document ANSI TIA/EIA–553–A–1999 Mobile Station—Base Station Compatibility Standard (approved October 14, 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.

§ 22.933 [Removed]

13. Section 22.933 is removed.

§ 22.937 [Removed]

14. Section 22.937 is removed.

§ 22.941 [Removed]

15. Section 22.941 is removed.

16. Section 22.943 is revised 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.

§ 22.945 [Removed]

17. Section 22.945 is removed.

18. Section 22.946 is amended by revising paragraph (b) and (c) to read as follows:

§ 22.946 Service commencement and construction systems.

* * * * *

(b) 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.

(c) *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.

PART 24—PERSONAL COMMUNICATIONS SERVICES

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

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

20. 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 these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (*i.e.* 1 MHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

(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.

[FR Doc. 02–31382 Filed 12–16–02; 8:45 am]

BILLING CODE 6712–01–P