daily operations; (3) determines and carries out the policy decisions (including preparation and filing of applications with the Commission); (4) is in charge of employment, supervision and dismissal of personnel operating the facilities; (5) is in charge of the payment of financial obligations, including expenses arising out of operations; and (6) receives the monies and profits from the operation of the facilities.[332] Under *Intermountain Microwave*, the Commission has interpreted Section 310(d) *de facto* control to require that the licensees exercise close working control of both the actual facilities/equipment operating the radiofrequency (RF) energy and the policy decisions, *e.g.*, business decisions, regarding use of the spectrum.

109. In its *Secondary Markets Report and Order*, the Commission determined that, in the context of spectrum leasing, it would replace the *Intermountain Microwave* standard with a more flexible standard for determining whether there has been a transfer of *de facto* control under Section 310(d). Under the new *de facto* control standard adopted in that proceeding, we no longer require that, when leasing spectrum, licensees exercise close working control over station facilities, determine the services that are provided, or set the policies affecting the station(s) operating with the spectrum licensed to them under their authorizations.[333] Instead, the Commission determined that licensees in applicable wireless services may lease spectrum usage rights to spectrum lessees, without the need for prior Commission approval, so long as the licensee continues to exercise effective working control over the use of the spectrum it leases.[334]

110. The *Rural NPRM* stated that, where infrastructure sharing arrangements do not involve a transfer of control of licensed spectrum usage rights under Section 310(d), Commission review is not required, but that infrastructure sharing arrangements that involve a transfer of control under Section 310(d) require Commission review.[335] The Commission noted that in the *Secondary Markets* proceeding it has streamlined the transfer of control and assignment process, and sought comment in the *Rural NPRM* on whether other steps may be taken that could further streamline this process.[336] Comment was sought on the factors to consider in evaluating infrastructure sharing arrangements that require Section 310(d) approval in order to effectively balance competition among providers and expanded coverage in rural areas.[337]

111. A number of comments generally support infrastructure sharing,[338] and state that costs

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[332] *Id.* at 559-60.

[333] *Secondary Markets Report and Order*, 18 FCC Rcd at 20635 ¶ 64.

[334] *Id.* at 20635-36 ¶ 65. We also require that the Commission be notified of the spectrum leasing arrangement and the identity of the spectrum lessee. *Id.* at 20659-60 ¶124.

[335] *Rural NPRM,* 18 FCC Rcd at 20850 ¶ 102.

[336] *Id.* at 20851 ¶ 105.

[337] *Id.* at 20851 ¶ 107.

[338] *See* RCA Comments at 14, NTCH Comments at 2, Ericsson Reply Comments at 2, CTIA Comments at 15, USCC Comments at 2, 8, T-Mobile Reply Comments at 3, OPASTCO/RTG Comments at 13, Cingular at 6.

are reduced and access may be improved as a result of such sharing arrangements.[339] Some commenters ask us to clarify that infrastructure sharing arrangements will not be reviewed using the *de facto* control standard as interpreted by the Commission in *Intermountain Microwave* for purposes of determining whether there would be a transfer of control under Section 310(d).[340] Instead, comments request that we apply the revised *de facto* control standard for spectrum leasing established in *Secondary Markets* to determine whether there has been a transfer of control under Section 310(d) for infrastructure sharing.[341] Nextel, however, states that the Commission's current rules and policies do not impede the formation or implementation of infrastructure sharing arrangements and that no change to the Commission's current approach is necessary.[342]

112. *Discussion.* We believe that infrastructure sharing offers the potential for benefits to both providers and consumers. Infrastructure sharing should be encouraged because of the potential for savings in capital costs for construction of facilities necessary to deploy wireless services, and for the improved or enhanced coverage in rural and other areas that otherwise may not be economical for providers to offer without some form of sharing. As we observed in the *Rural NPRM*, infrastructure sharing arrangements have been considered in both the United States and in Europe, with apparently favorable results.[343] The actions we take today seek to further encourage beneficial infrastructure sharing arrangements.

113. We determine in this *Report and Order* that a revised *de facto* control standard, different from the *de facto* control standard under *Intermountain Microwave*, should be extended to infrastructure sharing arrangements that only involve the sharing of facilities such as physical structures and equipment. Specifically, the revised *de facto* control standard for spectrum leasing in *Secondary Markets* shall apply for interpreting whether a licensee retains *de facto* control for purposes of Section 310(d) when it is engaged in an infrastructure sharing arrangement. We believe that this policy will encourage the development of arrangements that potentially reduce costs for providers and improve coverage in rural areas. We note, however, that to the extent that licensees are sharing spectrum usage rights with third parties under spectrum leasing arrangements, such arrangements will be subject to the policies, rules, and procedures set forth in the Commission's *Secondary Markets* proceeding in WT Docket No.

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[339] *See* RCA Comments at 14, NTCH Comments at 2, Cingular Comments at 6, CTIA Comments at 15. *See also* T-Mobile Reply Comments at 3.

[340] *See* Ericsson Reply Comments at 4 (commenting with respect to "shared" networks); Nextel Partners Reply Comments at 7.

[341] Ericsson Reply Comments at 4, Cingular Comments at 6, USCC Comments at 9, AT&T Reply Comments at 11.

[342] Nextel Communications Reply Comments at 11.

[343] In the *Rural NPRM*, the Commission identified certain arrangements between various providers in the United States, including agreements to use each other's infrastructure in different geographic areas, build a network along highways in the Western and Midwestern United States, and cooperate in the building and maintaining of new wireless towers. *See Rural NPRM*, 18 FCC Rcd at 20849-50 ¶ 101. The Commission also observed that there were preliminary conclusions in Europe to view favorably certain sharing arrangements for the provision of 3G services which should allow for faster rollout and greater coverage, particularly in remote and rural areas. *Id.* at 20850 ¶ 103.

00-230.[344]

114. The Commission stated in the *Secondary Markets Report and Order* that revision of the *de facto* transfer of control test "may be warranted as the public's interests and needs change and the nature of a service evolves."[345] The Commission further stated that "continuing to focus on one type of control (*e.g.*, control over facilities) may no longer constitute the best way to further the complex and sometimes competing public interest goals of today."[346] The "sea change" that has taken place in the regulatory and technological environment for wireless services was addressed by the Commission, which identified some of the actions it has taken to promote innovative policies that seek to increase communications capacity and efficiency of spectrum use, and to make spectrum available for new uses and users.[347] Against this backdrop, comments to the *Rural NPRM* state that small regional operators often face significant financial barriers to constructing wireless networks, and that smaller communities may not be able to support a multiple number of carriers.[348] Comments confirm the benefits that may result from infrastructure sharing. For example, RCA states that sharing "should be permitted as a means to minimize capital costs among cooperating carriers and to provide service to more consumers in rural areas."[349] NTCH acknowledges that the population in many rural markets cannot sustain the number of carriers that serve in major markets, and that sharing may be a means of eliminating some capital costs.[350] CTIA states that infrastructure sharing can "play a powerful role in improving both wireless deployment and competition by reducing the costs of capital construction in rural areas."[351]

115. There have been significant changes in the communications industry since the *Intermountain Microwave de facto* standard was established over 40 years ago, including the rise of new technologies for the industry and the Commission's increasing efforts to afford quick and effective means for parties to adapt to markets and to the needs of consumers. Under these circumstances, we no longer believe that it is necessary to continue to require that a licensee exercise immediate direct control over every facility that may be operating in connection with the provision of services using its spectrum. Accordingly, we will apply the more flexible *de facto* control standard set forth in the *Secondary Markets Report and Order* when interpreting whether a licensee (or spectrum lessee) retains *de facto* control for

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[344] In addition to the provisions made available through the Commission's actions in that proceeding, licensees and other parties seeking to enter into sharing arrangements that directly include the use of spectrum licensed by the Commission are free to avail themselves of other procedures to the extent appropriate, including the filing of applications pursuant to Section 310(d) seeking full or partial assignments of licenses.

[345] *Secondary Markets Report and Order*, 18 FCC Rcd at 20631 ¶ 55.

[346] *Id.*

[347] *Id.* at 20632 ¶ 57 (discussing Commission adoption of policies to provide increased flexibility for licensees to respond quickly and effectively to evolving needs, technologies, and market developments).

[348] *See* Ericsson Reply Comments at 2, NTCH Comments at 2.

[349] RCA Comments at 14.

[350] NTCH Comments at 2-3.

[351] CTIA Comments at 15; *see also* Cingular Comments at 6 (commenting that sharing may entice carriers to extend service to rural areas where they may not otherwise deploy), USCC Comments at 8 (stating that sharing potentially could help minimize capital expenditures and maximize coverage to customers' benefit).

purposes of Section 310(d) when it is engaged in an infrastructure sharing arrangement involving facilities only.[352] Under this standard, the licensee (or spectrum lessee) remains responsible for ensuring compliance with the Communications Act and all applicable policies and rules. This responsibility includes maintaining reasonable operational oversight with respect to any activities relating to the infrastructure sharing arrangement so as to ensure that the operator of the facilities complies with all applicable technical and service rules, including safety guidelines relating to radiofrequency radiation. In addition, the licensee must retain responsibility for meeting all applicable frequency coordination obligations and resolving interference-related matters, and must retain the right to inspect the facility operations and to terminate the infrastructure sharing arrangement to ensure compliance.

116. The Commission retains the ability to investigate and terminate any infrastructure sharing arrangement to the extent it determines that the arrangement constitutes an unauthorized transfer of *de facto* control under our new standard.

117. Our elimination of the *Intermountain Microwave de facto* control standard with respect to infrastructure sharing arrangements generally, however, in no way affects the application of our rules to determine eligibility for designated entity and entrepreneur licensee status. A designated entity or entrepreneur licensee will be permitted to enter into an infrastructure sharing arrangement, without application of our unjust enrichment rules and transfer restrictions, only so long as the arrangement does not result in another entity's becoming a controlling interest or affiliate of the licensee, such that the licensee would no longer meet our eligibility requirements for designated entity or entrepreneur benefits. For these determinations, our existing attribution rules, including our definitions of controlling interest and affiliation (which incorporate the *Intermountain Microwave* principles of *de facto* control),[353] will continue to control.[354] However, in determinations involving infrastructure sharing arrangements, our attribution rules will be applied in the same manner in which, as we clarified in the *Secondary Markets Report and Order*, they are to be applied in determinations involving spectrum manager leasing arrangements.[355] We expect each designated entity or entrepreneur licensee contemplating entering into an infrastructure sharing arrangement to analyze in advance whether such an arrangement would adversely affect the licensee's ongoing eligibility for size-based benefits.[356]

118. The assessment of potential competitive effects of transactions, whether they are transfers of control, license assignments, or infrastructure sharing arrangements, remains an important element of our policies to promote facilities-based competition and guard against the harmful effects of anticompetitive conduct.[357] We believe that our encouragement of infrastructure sharing arrangements as

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[352] But see *infra* our discussion regarding infrastructure sharing arrangements involving one or more entrepreneur or designated entity licensees.

[353] *See* Amendment of Part 1 of the Commission's rules – Competitive Bidding Procedures, WT Docket No. 97-82, *Order on Reconsideration of the Third Report and Order, Fifth Report and Order, and Fourth Further Notice of Proposed Rule Making*, 15 FCC Rcd 15,293, 15,324 ¶ 61 (2000).

[354] *See* 47 C.F.R. § 1.2110.

[355] *See Secondary Markets Report and Order* at ¶¶ 78-79.

[356] Of course, we retain the right to conduct such an analysis on our own should we have any concerns about the continuing eligibility of a licensee for designated entity or entrepreneur benefits.

[357] *Id.* at 20656 ¶ 116.

potentially effective means to promote the provision of spectrum based services to rural areas is consistent with our consideration of competitive effects and potential competitive harm. Providers and consumers may be in a position to benefit from the potential for lower capital costs for facilities and improved coverage.

119. ITA expresses concern that interference issues similar to those that have been raised in other proceedings may result from infrastructure sharing arrangements, particularly with respect to the potential for interference that may result from the collocation of antennas.[358] Licensees that are parties to infrastructure sharing arrangements will be responsible for resolving all interference-related matters that may result from such arrangements in a manner consistent with the Commission's interference-based service rules. Our notification requirement that we adopt here also helps us to ensure that licensees and non-licensee parties to an arrangement are complying with our interference and non-interference related policies and rules.

120. *Potential Barriers to Infrastructure Sharing.* A number of comments request that the Commission act to remove impediments to infrastructure sharing at the state and local level, particularly as they relate to tower siting.[359] The Commission is asked to form a national policy that would seek to remove these barriers and establish direction for state and local authorities to establish clear and consistent siting policies.[360] Some comments ask generally that the Commission preempt state and local regulations that block the deployment of services in rural areas.[361]

121. Section 332(c)(7) of the Act preserves state and local authority over zoning and land use decisions for personal wireless service facilities, but also limits that authority.[362] The limitations include that state or local governments may not unreasonably discriminate among providers of functionally equivalent services, and may not regulate in a manner that prohibits or has the effect of prohibiting the provision of personal wireless services.[363] A state or local government also must act on applications within a reasonable period of time, and must make any denial of an application in writing supported by substantial evidence in a written record.[364] The statute also preempts state and local decisions to regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency (RF) emissions to the extent the facilities comply with the

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[358] ITA Comments at 9-10.

[359] *See* CTIA Reply Comments at 15-16, AT&T Reply Comments at 10-11, Western Wireless Reply Comments at 10-11. *See also* T-Mobile Reply Comments at 3-4.

[360] *See* CTIA Reply Comments at 15, AT&T Reply Comments at 10-11, Western Wireless Reply Comments at 11. See also Dobson Comments at 13 (asserting that Commission should establish a "best practices" guide for municipalities for local zoning use).

[361] *See* CTIA Reply Comments at 16, AT&T Reply Comments at 10-11.

[362] 47 U.S.C. § 332(c)(7)(A). "Personal wireless service facilities" are facilities used to provide "personal wireless services" which are commercial mobile service, unlicensed wireless services, and common carrier wireless exchange access services. *See id.* § 332(c)(7)(C)(i), (ii).

[363] *Id.* § 332(c)(7)(B).

[364] *Id.* §332(c)(7)(B)(ii), (iii).

Commission's RF rules.[365]

122. We encourage state and local authorities, when considering requests to deploy wireless facilities and when establishing facilities siting policies, to consider the impacts of their decisions on the availability of competitive wireless service. As commenters have noted, some localities have imposed tower siting requirements that make both initial construction and subsequent sharing of facilities difficult.[366] We believe that state and local governments should consider measures that would reduce regulatory burdens for those projects that are least likely to implicate local land use concerns, while retaining reasonable review processes for proposals that are more likely to have significant effects. In this regard, the Commission and its former Local and State Government Advisory Committee (LSGAC) have provided guidance to state and local authorities to assist them in devising efficient procedures for verifying that antenna facilities comply with the Commission's RF exposure guidelines.[367] We will consider offering similar guidance in the future in response to specific needs.

123. With respect to preemption, as discussed above, Section 332(c)(7) generally preserves local authority over land use decisions, and limits the Commission's authority in this area.[368] In appropriate cases, the Commission or its Bureaus have considered petitions alleging that particular regulations impinge on areas within the Commission's exclusive jurisdiction.[369] We will continue to address such issues in the future where supported by law.

124. Finally, we note that we have taken action to improve our own rules and procedures respecting other tower siting issues, including those relating to our environmental review, in order to facilitate the timely deployment of wireless services. We will continue to consider further improvements in the future where necessary.

4. Rural Radiotelephone Service/Basic Exchange Telecommunications Radio Service

125. *Background.* In the *NPRM*, the Commission sought comment on several issues related to the current use and demand for service in the Rural Radiotelephone Service (RRS) and the Basic Exchange Telecommunications Radio Service (BETRS).[370] Additionally, the Commission sought comment on whether its current rules and policies for RRS and BETRS are limiting factors towards a

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[365] *Id.* § 332(c)(7)(B)(iv).

[366] *See* CTIA Comments at 16, Dobson Comments at 13.

[367] *See* A Local Official's Guide to Transmitting Antenna RF Emission Safety: Rules, Procedures, and Practical Guidance (June 2, 2000), < http://wireless.fcc.gov/siting/FCC_LSGAC_RF_Guide.pdf>.

[368] *Cf.* 47 U.S.C. § 332(c)(7)(B)(v) (providing that courts have exclusive jurisdiction over most complaints under Section 332(c)(7)(B)).

[369] *Cf.* Petition for Declaratory Ruling filed by Cingular Wireless LLC that Provisions of the Anne Arundel County Zoning Ordinance are Preempted as Impermissible Regulation of Radio Frequency Interference Reserved Exclusively to the Federal Communications Commission, *Memorandum Opinion and Order*, 18 FCC Rcd 13126 (WTB 2003)(preemption relating to radio frequency interference (RFI)), *app. for review pending.*

[370] *See Rural NPRM*, 18 FCC Rcd at 20853-54 ¶¶ 111-114.

more expansive use of these services.[371] As indicated in the *NPRM*, RRS was established to provide, in most instances, basic telephone service to subscribers in locations deemed so remote that traditional wireline service or service by other means is not feasible.[372] BETRS is a digital counterpart to the traditional, analog RRS, and can be characterized as more spectrally efficient than RRS, provides private calling, and has a much lower call blocking rate than RRS.[373] All RRS and BETRS authorizations are issued on a secondary, non-interfering basis.

126. Specifically, in the *NPRM*, the Commission sought comment on the current level of demand for RRS and BETRS and noted that according to its licensing records, a relatively low number of licenses have been issued for the spectrum.[374] In addition, the Commission sought comment on the demand for basic communications services, other than wireline, and inquired about how the demand is being met if it is not through the use of RRS and BETRS spectrum.[375] Furthermore, the Commission sought comment on whether access to RRS and BETRS spectrum is an impediment to the provision of these services, if a demand exists.[376]

127. With respect to current policies and rules, the Commission sought comment on the proposal to remove the eligibility restriction for BETRS that restricts the issuance of a license to only those entities that receive state approval to provide a basic exchange telephone service.[377] The Commission also sought comment on whether expanding the secondary status of RRS and BETRS to other spectrum bands would facilitate and encourage construction in rural areas.[378] Finally, the Commission sought comment on whether additional spectrum, issued on a primary basis, is needed at this time for RRS and BETRS.[379]

128. *Discussion*. We conclude that it is appropriate to remove the eligibility restrictions contained within Section 22.702 of our rules regarding state approval prior to the issuance of a BETRS license. Although no comments were received regarding this specific proposal, we believe the removal of this restriction is in the public interest. As it stands now, a potential BETRS licensee must demonstrate that it has received state approval to provide basic exchange telephone service prior to applying for a BETRS license.[380] We believe by eliminating this restriction, a potential regulatory barrier is removed and the process for gaining access to BETRS spectrum is simplified and expedited. For

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[371] *Id.* at 20854-55 ¶ 115.

[372] *Id.* at 20852 ¶ 109.

[373] *Id.*

[374] *Id.* at 20853 ¶ 112.

[375] *Id.* at 20854 ¶ 113.

[376] *Id.* at 20854 ¶ 114.

[377] *Id.* at 20854-55 ¶ 115. *See* 47 C.F.R. § 22.702.

[378] *Rural NPRM*, 18 FCC Rcd at 20854-55 ¶ 115.

[379] *Id.*

[380] 47 C.F.R. § 22.702.

example, under this approach, a carrier could seek approval from a state and the Commission at the same time, shortening deployment time. Nonetheless, we retain the current requirement that a BETRS station must be constructed within 12 months of the issuance of a license, therefore minimizing the potential for warehousing spectrum in those instances where a BETRS licensee does not receive state approval, where required, to provide basic exchange telephone service.[381]

129. As for the remaining issues raised in the *NPRM* concerning RRS and BETRS, we received very limited comment.[382] CTIA indicates that it supports efforts to survey RRS and BETRS users to determine the effectiveness of those services, and if it is shown that the spectrum is not being efficiently utilized, the Commission should reallocate the current RRS and BETRS spectrum to more efficient and commercially viable uses.[383] While we fully support efficient utilization and deployment of RRS and BETRS, we find it unnecessary to survey users at this time. Specifically, the current allocation for RRS and BETRS is secondary to the Paging Radiotelephone (paging) service and the Specialized Mobile Radio (SMR) service, which have both been auctioned and licenses issued on a geographic basis. Thus, even if RRS and BETRS licensees were found not operating, the spectrum would remain allocated to the paging and SMR services. Further, given the lack of support in the comments for a primary allocation of RRS and BETRS or the expansion of the secondary use of RRS and BETRS to other spectrum, we decline to take action on such proposals.

IV. FURTHER NOTICE OF PROPOSED RULE MAKING

A. Introduction

130. The widespread provision of communications services is not only one of the Commission's primary public policy objectives, but also one of its statutory mandates. The Commission has as its primary mission the promotion of "communication by wire and radio so as to make available, so far as possible, to all the people of the United States, without discrimination on the basis of race, color, religion, national origin, or sex, a rapid, efficient, Nation-wide, and world-wide wire and radio communication service."[384] In addition, the Omnibus Budget Reconciliation Act of 1993 added Section 309(j) to the Communications Act, which requires the Commission to promote various objectives in designing a system of competitive bidding.[385] A number of these objectives focus on the provision of spectrum-based services to rural areas, such as encouraging the development and rapid deployment of new technologies, products, and services for the benefit of the public, "including those residing in rural areas."[386] In addition to the rural service objectives mandated by Section 309(j), Congress directed the

[381] *See id.* § 22.713.

[382] *See* CTIA Comments at 17, Nextel Partners Comments at 20-21. Nextel Partners indicates, generally, that the Commission should find economic means to provide the target populations of RRS and BETRS subscribers with up-to-date mobile wireless services. We believe Nextel Partners comments lack sufficient detail and are beyond the scope of the *Rural NPRM*.

[383] *See* CTIA Comments at 17.

[384] 47 U.S.C. § 151.

[385] Omnibus Budget Reconciliation Act of 1993, Pub. L. No. 103-66, § 6002, 107 Stat. 312, 387-397 (codified at 47 U.S.C. § 309(j) (1993)).

[386] 47 U.S.C. § 309(j)(3)(A).

Commission to pursue other broader public interest goals. Specifically, Section 309(j)(3) requires the Commission to promote efficient and intensive use of the spectrum, encourage economic opportunity and competition, and recover for the public a portion of the value of the public spectrum.[387] Given these statutory obligations, the Commission's spectrum policy goals include facilitating the efficient use of spectrum, as well as fostering competition, and rapid, widespread service consistent with the goals of the Communications Act.[388]

131. As noted in the *Report and Order*, our current policies and rules generally facilitate rural development of wireless services where it is economic to do so.[389] The competitive bidding process and related performance and other requirements for successful bidders, including existing substantial service and flexible use policies, encourage licensees to make productive and innovative use of spectrum. In addition, our secondary market mechanisms provide on-going opportunities for new entrants to gain access to spectrum from those licensees as market conditions change, thereby ensuring that spectrum moves to its highest valued uses over time. We believe that, insofar as they have economic incentives to do so, new wireless service providers will choose to enter rural markets and existing rural service providers will extend their presence further into the rural areas where they operate.

132. As we acknowledge in the *Report and Order*, however, there may be circumstances in which our market-oriented policies are insufficient to foster access to spectrum and deployment of service in rural areas.[390] In such cases, we will continue to consider the adoption of appropriate performance requirements, along with other means, for both existing and future licenses to further encourage the provision of wireless service to rural areas.[391] Accordingly, in this *Further Notice*, we build on the record accumulated in response to the *Rural NPRM* and we seek comment on the appropriate mechanisms to further ensure that spectrum ultimately continues to be put to its highest valued use. In particular, we seek additional comment on the effectiveness of our partitioning, disaggregation, spectrum leasing and other market-based policies and rules in making wireless services available to more rural areas. We also seek comment on our potential use of "keep-what-you-use" re-licensing mechanisms, renewal term substantial service requirements, as well as other alternatives to move unused or underused spectrum to those who may be able to use it more intensively. We also seek comment on the economic impacts of employing such approaches and whether different services may benefit from different approaches to expanded spectrum access.

133. As noted above, service to rural areas may be delayed because entities that are otherwise willing and able to deploy service lack access to spectrum. The increasing use of unlicensed wireless technologies and applications in rural areas suggests that operators will deploy service if there is availability of or access to spectrum with which to do so.[392] Accordingly, we undertake this further

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[387] *Id.* § 309(j)(3)(B)-(D).

[388] 47 U.S.C. §§ 151, 309(j).

[389] *See supra* ¶¶ 37-39.

[390] *See supra* ¶¶ 39-41.

[391] *See supra* ¶ 39.

[392] For example, in an annual survey of its members, the National Telecommunications Cooperative Association (NTCA) found that, in four years the percentage of rural telcos offering broadband to their customer base jumped to 92 percent with 22 percent of those providers using unlicensed wireless (along with other technologies) to reach

(continued....)

inquiry to assess alternative methods that will ensure that spectrum rights flow to those who are willing and able to put spectrum to use in rural areas.

134. In this *Further Notice*, we seek to explore whether changing our method for enforcing performance requirements or adding renewal term performance requirements could have a beneficial impact on the deployment of wireless service to rural areas. In this regard, this section examines how the licensing of wireless services has evolved from a "keep what you use" standard to a "complete forfeiture" approach. The following paragraphs provide an overview of the development of licensing models and performance standards, while also providing the Commission's rationale behind these policy shifts.

B. Background

135. *Site-by-site Construction.* Initially, the Commission licensed mobile and fixed wireless services on a site-by-site and frequency-by-frequency basis.[393] Licensees were authorized to operate a station only at a specific location, using a specific frequency or frequencies. Some examples of this type of licensing approach include one or more base stations with mobile units in the vicinity, or a fixed communications path between two points.[394] With this type of site-specific licensing, the Commission adopted a "keep what you use" performance requirement, meaning that at the end of a licensee's construction period, any unconstructed areas or frequencies came back under Commission control for re-licensing on a first-come, first served (often pre-coordinated) site-by-site basis. In this regard, the Commission sought to ensure timely use of spectrum and "to ensure that the channels which we make available to eligibles are put in 'use' and not put in 'storage.'"[395]

136. For example, the Commission's original rules governing 800 MHz SMR were designed to license dispatch radio systems on a transmitter-by-transmitter basis in local markets.[396] The Commission typically gave an 800 MHz SMR licensee up to 12 months after the grant of a license to construct and begin operation of its facilities, meaning that each licensed site and frequency had to be up

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their customers. *See* NTCA 2004 Broadband/Internet Availability Survey Report (June 2004). *See also* comments submitted in the Federal Communications Commission's 2004 Wireless Broadband Forum, held May 19, 2004, citing the use of unlicensed wireless in rural communities: Kevin Werback, New America Foundation and Public Knowledge, "The Coming Age of Unlicensed Wireless Radio Revolution"; Patrick Leary, Alvarion, Inc., "Rural U.S. Examples of Wireless Broadband Deployments."

[393] *See, e.g.*, An Inquiry Relative to the Future Use of the Frequency Band 806-960 MHz and Amendment of Parts 2, 18, 21, 73, 74, 89, 91 and 93 of the Rules Relative to Operations in the Land Mobile Service Between 806-960 MHz, Docket No. 18262, *Memorandum Opinion and Order*, 51 FCC 2d 945 ¶ 128 (1975) (*806-960 MHz MO&O*).

[394] For example, a typical site-based use is dispatch service. Dispatch services allow two-way, real-time, voice communications between fixed units and mobile units, *e.g.*, between a taxicab dispatch office and a taxi, or between two or more mobile units, such as between a car and a truck.

[395] *806-960 MHz MO&O,* 51 FCC 2d at ¶ 128.

[396] Amendment of Part 90 of the Commission's Rules to Facilitate Future Development of SMR Systems in the 800 MHz Frequency Band, PR Docket No. 93-144, *First Report and Order*, *Eighth Report and Order* and *Second Further Notice of Proposed Rulemaking*, 11 FCC Rcd 1463, 1474 ¶ 4 (1995) (*SMR Report and Order*).

and running within one year.[397] At the end of that time period, licensed areas and frequencies that were unconstructed reverted back to the Commission for re-licensing.[398]

137. *Hybrid Licensing*. As technology evolved, mobile wireless providers sought to expand their reach and to provide service over a wide area. Two different approaches of "wide-area" licensing developed in response to increasing demand for new services: the SMR model and the cellular model. While these approaches permitted SMR and cellular carriers to operate within a wide-area footprint, the Commission's site-specific licensing rules and "keep what you use" policy still applied.

138. For example, responding to growing demand for mobile telephony and limited capacity, SMR licensees sought to operate technically innovative, wide-area systems. Because of the complexity and expense of building these systems, however, licensees were frequently unable to provision service within the 8 to 12 month time frame required by Commission rules.[399] Beginning in 1991, the Commission granted waivers and extended implementation authority to many SMR licensees, giving them authority to expand the geographic scope of their services and combine large numbers of channels in order to provide service intended to compete with cellular.[400] Applicants who were granted waivers or extended implementation authority received additional time to construct the licensed spectrum. However, applicants still had to apply for each site individually and in the event the licensee did not construct and operate the frequencies within the extended time period, the unused spectrum came back under Commission control for re-licensing.

139. In contrast, wide-area licensing for the cellular radiotelephone service followed a different path. In establishing commercial licensing of cellular in 1981, the Commission recognized the need to define cellular service areas while also providing authorized cellular operators with the freedom they needed to adapt their systems in the face of growing and changing demand.[401] The Commission established a regulatory structure centered around cellular geographic service areas (CGSAs) that would be defined by license applicants themselves as the areas within a market that they intended to serve. An applicant was required to serve at least 75 percent of its CGSA.[402] The Commission soon after added an additional rule, requiring applicants to define their CGSAs to cover at least 75 percent of the population

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[397] Construction periods for such licensees were originally 8 months in duration. Construction periods were extended to a uniform 12-month period for all commercial mobile radio service licensees in August 1994. Implementation of Sections 3(n) and 332 of the Communications Act, PR Docket No. 89-553, *Third Report and Order*, 9 FCC Rcd 7988, 8074 ¶ 177 (1994).

[398] Amendment of Part 90 of the Commission's Rules Governing Extended Implementation Periods, PR Docket No. 92-210, *Report and Order*, 8 FCC Rcd 3975 ¶ 2 (1993) (*Extended Implementation Report and Order*).

[399] Amendment of Part 90 of the Commission's Rules Governing Extended Implementation Periods, PR Docket No. 92-210, *Notice of Proposed Rule Making*, 7 FCC Rcd 6587 ¶ 3 (1992) (*Extended Implementation NPRM*).

[400] *See, e.g.*, Fleet Call, Inc., *Memorandum Opinion and Order*, 6 FCC Rcd 1533, reconsideration dismissed, 6 FCC Rcd 6989 (1991). *See* also *Extended Implementation Report and Order*, 8 FCC Rcd at 3975-76 ¶ 6.

[401] An Inquiry Into the Use of the Bands 825-845 MHz and 870-890 MHz for Cellular Communications Systems; and Amendment of Parts 2 and 22 of the Commission's Rules Relative to Cellular Communications Systems, CC Docket No. 79-318, *Report and Order*, 86 FCC 2d 469 ¶ 96 (1981) (*Cellular Report and Order*).

[402] *Id.* at ¶ 97.

or area of the corresponding MSA[403] or RSA.[404] Carriers operating in MSAs were required to place their cellular stations into operation within 36 months of the initial license grant,[405] while operators in RSAs had 18 months to construct.[406] In addition, the Commission afforded licensees a five-year "fill-in" period in which a licensee could apply to expand the boundaries of its CGSA within the MSA/RSA without the worry of competing interests from another applicant.[407]

140. As the popularity of cellular service began to grow, the Commission determined that it was not in the public interest to allow a cellular licensee to protect unserved territory for an unlimited period of time simply because the territory was part of its CGSA.[408] The Commission, therefore, imposed a "keep-what-you-use" regime on all cellular licenses, and established rules and procedures for accepting applications to operate new cellular systems in areas still unserved at the expiration of the incumbent's five-year "fill-in" period.[409] In addition, the Commission adopted rules determining the size of CGSAs by a mathematical formula and redefined the boundaries authorized for existing cellular systems to more closely mirror the areas of actual construction and coverage so that potential licensees for the cellular unserved areas would have a clearer picture of which areas were available.[410] At the end of the five year "fill-in" period, any unused spectrum reverted back to the Commission for re-licensing. New licenses authorized as a result of the unserved area licensing rules are licensed on a site-specific basis, and licensees are required to complete construction and provide service to the public within one year of the initial authorization grant.[411]

141. *Geographic Area-based Approach.* While the hybrid licensing models did help to

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[403] Amendment of the Commission's Rules To Allow the Selection from Among Mutually Exclusive Competing Cellular Applications Using Random Selection or Lotteries Instead of Comparative Hearings, CC Docket No. 83-1096, *Report and Order*, 98 FCC 2d 175 ¶ 67 (1984).

[404] Amendment of the Commission's Rules for Rural Cellular Radio Service, CC Docket No. 85-388, *First Report and Order*, 60 Rad. Reg. 2d (P & F) 1029 ¶ 28 (1986) (*Rural Cellular Report and Order*).

[405] *Cellular Report and Order*, 86 FCC 2d 469, App. C.

[406] *Rural Cellular Report and Order*, 60 Rad. Reg. 2d at ¶ 28.

[407] Amendment of the Commission's Rules for Rural Cellular Service, CC Docket No. 85-388, *Order on Reconsideration of Second Report and Order*, 4 FCC Rcd 5377 ¶ 15 (1989).

[408] 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, *Notice of Proposed Rule Making*, 5 FCC Rcd 1044 ¶ 24 (1990) (*Unserved Area NPRM*).

[409] 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, *First Report and Order* and *Memorandum Opinion and Order on Reconsideration*, 6 FCC Rcd 6185 ¶¶ 18-22 (1991) (*Unserved Area Report and Order*).

[410] 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, *Second Report and Order*, 7 FCC Rcd 2449 ¶¶ 8-12 (1992) (*Unserved Area Second Report and Order*).

[411] *Unserved Area Report and Order*, 6 FCC Rcd at ¶ 93.

expand wireless service, problems remained.[412] For example, even with waivers and grants of extended implementation authority developed in the hybrid licensing model, the SMR licensing process remained cumbersome because of the requirement that SMR sites and frequencies be licensed individually.[413] The Commission noted specifically that "site-by-site licensing deprives licensees of flexibility to move transmitter sites throughout a defined service area without seeking [the Commission's] prior approval."[414] In order to provide wireless licensees with needed flexibility, therefore, the Commission adopted a system of geographic-area licensing with minimum coverage requirements based on population or geography.[415] At the same time, the Commission transitioned from the "keep what you use" licensing policy to a "complete forfeiture" approach, which made licenses subject to automatic cancellation for failure to meet interim coverage requirements at specified benchmarks.[416] Failure to meet applicable performance benchmarks would result in complete loss of the license, even in areas where construction had already been completed.[417]

142. The Commission first applied geographic area licensing and a "complete forfeiture" performance standard when it established the narrowband and broadband PCS services. In order to permit the widest possible range of mobile communications, the Commission put in place technical standards that would permit significant flexibility in both the design and implementation of PCS systems as well as geographic- and population-based construction benchmarks that would ensure that licensees built out their systems or face forfeiture of their licenses.[418] The Commission concluded that these and other changes to its licensing approach would encourage diversity of technologies and speed deployment of service.[419] In addition, in 2000, the Commission adopted "substantial service" as an alternative

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[412] *SMR Report and Order*, 11 FCC Rcd at 1474 ¶ 4.

[413] *Id.*

[414] *Id.*

[415] *See, e.g.*, Amendment of the Commission's Rules to Establish New Narrowband Personal Communications Services, GEN Docket No. 90-314, ET Docket No. 92-100, *Memorandum Opinion and Order*, 9 FCC Rcd 1309, 1314 (1994) (*Narrowband PCS MO&O*).

[416] *See, e.g.*, 47 C.F.R. § 90.685(d).

[417] *See, e.g., id.*

[418] The Commission's rules require that 30 MHz broadband PCS licensees must provide service sufficient to cover one-third of the market's population within five years of license grant and two-thirds of the population of the market within ten years. 47 C.F.R. § 24.203(a). Ten and 15 MHz broadband PCS licensees must provide service sufficient to cover one-third of the population or provide substantial service within 5 years of license grant. 47 C.F.R. § 24.203(b). Narrowband PCS providers may elect geographic-based, population-based or substantial service benchmarks in order to satisfy their construction obligations. *See* 47 C.F.R. § 24.103.

[419] *See* Amendment of the Commission's Rules to Establish New Personal Communications Services, GEN Docket No. 90-314, *Second Report and Order*, 8 FCC Rcd 7700, 7753-54 ¶¶ 132-134. The Commission concluded that, in addition to flexible technical and coverage rules, both large and small market sizes would promote the swift implementation and deployment of PCS service as well as increase competition and promote diversity in the provision of such services. *See* Amendment of the Commission's Rules to Establish New Narrowband Personal Communications Services, GEN Docket No. 90-314, ET Docket No. 92-100, *First Report and Order*, 8 FCC Rcd 7162, 7167 ¶ 27 (1993) (*Narrowband PCS Report and Order*).

construction requirement for PCS licensees.[420] As noted, under the "complete forfeiture" approach, failure to meet these benchmarks results in automatic cancellation or non-renewal of the entire PCS license, including the rights to operate from any facilities already constructed under the authorization.[421]

143. The Commission also applied geographic area licensing to existing services, such as SMR. The Commission sought to institute policies that would afford wide-area SMR system licensees opportunities to bid on new licenses that offered the same flexibility as cellular and PCS licenses in terms of facility location, design, construction, and modification.[422] Therefore, the Commission designated the upper 200 channels of 800 MHz SMR spectrum for geographic-area licensing based on EAs, and overlayed geographic markets over existing site-based systems.[423] The Commission granted licensees the authority to construct base stations at any available site and on any available channel within their spectrum blocks so long as previously existing site-based facilities are provided appropriate interference protection.[424] Using the "complete forfeiture" approach, the Commission also instituted minimum coverage and channel use requirements at three- and five-year benchmarks.[425] Two years later, in 1997, the Commission adopted geographic-area licensing with EA service areas for the lower 230 800 MHz channels as well, stating that "geographic area licensing remains the most efficient and logical licensing approach for the majority of licensees in the band."[426] The Commission adopted construction requirements similar to the upper channels, but eliminated the channel usage requirement and also adopted an alternative plan whereby licensees in the lower 230 channels can satisfy coverage obligations by providing substantial service within five years of license.[427]

144. In recent years, the Commission has continued to embrace geographic area licensing[428]

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[420] Amendment of the Commission's Rules to Establish New Personal Communications Services, Narrowband PCS, GEN Docket No. 90-314, ET Docket No. 92-100, *Second Report and Order* and *Second Further Notice of Proposed Rule Making*, 15 FCC Rcd 10456, 10469 ¶ 24 (2000).

[421] 47 C.F.R. § 24.203.

[422] *SMR Report and Order*, 11 FCC Rcd at 1496-97 ¶ 49.

[423] *Id.* at 1483-85 ¶¶ 23-25. Geographic area licenses were overlayed unto existing site-based facilities. Geographic area licensees are required to provide protection to any site-based licensee within their markets.

[424] *Id.* at 1498 ¶ 52.

[425] The Commission adopted 10-year license terms and five-year construction periods for EA licenses, which require licensees to (1) demonstrate coverage of one-third of the population within their EA and demonstrate use of 50 percent of the channels within their spectrum block within three years of the initial license grants; and (2) demonstrate coverage of two-thirds of the EA population by the end of the five-year construction period. *See* 47 C.F.R. §§ 90.685(b), (c).

[426] Amendment of Part 90 of the Commission's Rules to Facilitate Future Development of SMR Systems in the 800 MHz Frequency Band, PR Docket No. 93-144, *Second Report and Order*, 12 FCC Rcd 19079, 19088-89 ¶¶ 12, 15 (1997) (*SMR Second Report and Order*).

[427] *Id.* at 19094-95 ¶ 34.

[428] *See e.g.* Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59), GN Docket No. 01-74, *Report and Order*, 17 FCC Rcd 1022 (2002) (Lower 700 MHz).

and moved towards the adoption of more flexible construction requirements, such as substantial service. This shift has occurred in order to provide flexibility for licensees seeking to provide a variety of services with their spectrum, not all of which require pervasive geographic coverage, as well as to accommodate licenses encompassing very large service areas as opposed to smaller site-based licenses. In keeping with its goal of flexibility for licensees, the Commission has also adopted substantial service as the sole standard, or as an alternate standard, for many services.[429] For example, LMDS, 39 GHz and 24 GHz microwave services all have the sole construction requirement of providing substantial service by the end of the initial license term.[430] As discussed earlier in Section III.D.1, the Commission's increasing movement towards substantial service as an alternative means of meeting construction requirements has been met with mixed reactions. While some commenters see extending substantial service to all wireless services as a way to promote regulatory parity,[431] others, such as OPASTCO/RTG, believe the vagueness of the substantial service standard will likely inhibit deployment of wireless services to rural areas.[432] Based on this difference of opinion between commenters, we seek further comment in the paragraphs below as to the appropriate performance standards to apply.

145. We note that regardless of the type of requirement, our current performance requirements apply only during the initial term. As noted, once a licensee renews its license, no additional performance requirements are imposed in subsequent terms other than the standard necessary in order to achieve a renewal expectancy.[433] In the case of renewals, if an incumbent files an appropriate and timely application and neither the public nor the Commission objects, the license will typically be renewed for another term. However, if another party objects or files a competing application, a licensee must demonstrate that it is entitled to a renewal expectancy.[434] A renewal applicant involved in a comparative renewal proceeding will acquire a renewal expectancy if the applicant provides sufficient evidence that the applicant has provided substantial service during its license term, and that the applicant has substantially complied with the Communications Act, as well as with all applicable Commission rules and policies.[435] As a general matter, if a renewal applicant satisfies these requirements, the applicant will

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[429] "Substantial service" generally means service that is sound, favorable, and substantially above a level of mediocre service that would barely warrant renewal. *See e.g.* 47 C.F.R. §§ 22.503(k)(3), 27.14, 90.685(b), 95.381, 101.527(a), 101.1011(a).

[430] 47 C.F.R. §§ 101.17, 101.527, 101.1011.

[431] *See* CTIA Comments at 5, Sprint Reply Comments at 23.

[432] OPASTCO/RTG Comments at 4-5.

[433] *See* 47 C.F.R. § 1.949.

[434] *See e.g.* 47 C.F.R. §§ 22.935(a), 22.940(a)(2). At a minimum, this showing must include (a) a description of the licensee's current service in terms of geographic coverage and population served as well as the system's ability to accommodate roamers; (b) an explanation of the licensee's record of expansion, including a timetable for any planned construction of new cell sites; (c) a description of the licensee's investment in its cellular system; and (d) copies of any Commission orders finding the licensee to have violated the Communications Act or any Commission rule or policy. *See* Section 22.940(a)(2)(i)-(iv).

[435] *See e.g.* 47 C.F.R. §§ 22.940(a)(1)(i) and (ii), 24.16, 27.14(b). If there are additional requirements applicable to the specific service, the incumbent must comply with those requirements prior to, or in connection with, its application for renewal. Section 1.949(a).

be granted a renewal expectancy and other competing applications will be dismissed.

C. Discussion

1. Existing Market-Based Models.

146. The Commission's rules and policies provide interested parties with several market-based vehicles for obtaining access to licensed spectrum through the secondary market. First, an interested party may obtain a license through the assignment and transfer of control process, pursuant to Commission review and approval under Section 310(d) of the Communications Act.[436] Furthermore, by utilizing the partitioning and disaggregation process,[437] parties need not buy a license "as is" – instead, parties may obtain licenses for a particular subset of frequencies and carve out certain geographic areas that satisfy their unique needs, while the original licensee retains the remaining frequencies and geographic areas. Second, parties may utilize the spectrum leasing process – further enabled under the Commission's secondary markets proceeding – to engage in short- and long-term leases.[438] Based upon the record developed in response to the *Rural NPRM*, we are hopeful that these measures will provide effective means of providing access to spectrum through the secondary market. As discussed below, however, it appears that there are ways in which these mechanisms nevertheless may not satisfy the needs of some parties; in the following paragraph, we identify some of the key concerns with these mechanisms, as reflected in the record, and seek additional comment on the efficacy of these procedures in providing access to spectrum in rural areas.

147. As an initial matter, we observe that the record reflects some disagreement with respect to the effectiveness of our partitioning and disaggregation policies in providing access to spectrum in rural areas. On the one hand, the record provides information on partitioning and disaggregation transactions that suggest these policies are working. AT&T Wireless, for example, states that "the Commission's partitioning and disaggregation policies have helped foster rural wireless deployment by enabling wireless carriers to concentrate their efforts where they can be most efficient."[439] AT&T Wireless indicates that it has "entered into more than a dozen agreements that involved the sale of more than 100 separate market areas or portions of market areas," and that many of these transactions "involved small and rural carriers" such as Highland Cellular, Inc., RCC Minnesota, Inc., and Union Telephone Company.[440] According to AT&T Wireless, "the vast majority of markets transferred were rural and suburban counties, rural service areas, and sparsely populated areas in more than twenty states."[441] On the other hand, the record also shows that some rural carriers may not be receiving the

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[436] *See* 47 U.S.C. § 310(d).

[437] For a list of wireless services for which partitioning and disaggregation is permitted, and for the service-specific rule sections governing partitioning and disaggregation, *see supra* note 20.

[438] *See Secondary Markets Report and Order* and *Secondary Markets Further Notice*.

[439] AT&T Wireless Comments at 5. *See also* Nextel Partners Comments at 20 (indicating that, "[w]ith regard to the 800 MHz SMR service, Nextel Partners has benefited from the applicable EA license partitioning rules, pursuant to which Nextel Partners has obtained partitioned EA licenses").

[440] AT&T Wireless Comments at 4.

[441] *Id.*

benefits of partitioning and disaggregation. In their joint comments, OPASTCO and RTG (OPASTCO/RTG) indicate that their "members have been repeatedly rebuffed in their attempts to entice license holders for various services to partition their license areas or disaggregate their spectrum."[442] According to OPASTCO/RTG, the problems with partitioning and disaggregation are multi-fold: (1) the Commission's rules do not provide licensees with an incentive "to 'carve out' portions of their license areas for rural carriers"; (2) "the administrative costs of entering into and managing the partitioning/disaggregation process outweigh the realized financial gains"; (3) and licensees wish "to retain the entire geographic area when they go to sell the system as a whole in the future," because "[l]icensees perceive that unpartitioned licenses will have a higher resale value."[443] Blooston echoes these concerns, stating that "large national and regional carriers that control licenses for most of the spectrum are not willing or able to devote the time and resources necessary to negotiate and implement arrangements on the scale desired by rural telephone companies."[444]

148. In order to identify the specific nature and extent to which our partitioning and disaggregation rules are working, we seek additional comment on specific partitioning and disaggregation transactions, as well as the negotiations process. We seek to develop a more comprehensive understanding of the ways in which this process may be insufficient to promote access to spectrum. For example, although Blooston indicates that large carriers may be reluctant to engage in smaller-scale transactions, such as those that involve less than one million "pops,"[445] AT&T Wireless expressly states that "[i]t has never placed" a threshold of one million pops on such deals and notes that it is "about to close a few spectrum transactions in which the total number of potential customers is very small."[446] AT&T Wireless further states that it has three pending sales involving "approximately 56,000 POPs spread across six counties[,]292,000 POPs across 13 counties[,] and 250,000 POPs across 15 counties," and that a wholly owned subsidiary of AT&T Wireless recently partitioned an "undefined area" in Jefferson Parrish, Louisiana, with a population of just 1533.[447] Given the conflicting record regarding the ability of carriers to engage in smaller-scale partitioning and disaggregation transactions, we believe that additional information, particularly specific transaction data such as that provided by AT&T Wireless, will facilitate our greater understanding of the benefits and shortfalls of our partitioning and disaggregation policies in fostering access to spectrum in rural areas. We also seek comment on how these policies may work in coordination with potential re-licensing mechanisms such as "keep what you use," as discussed in greater detail below in section IV.C.2. We note that certain commenters proposed various incentives for licensees to engage in partitioning and disaggregation, including the provision of bidding credits for auction winners that commit to partitioning portions of their licenses to rural

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[442] OPASTCO/RTG Comments at 10-11.

[443] *Id.*

[444] Blooston Comments at 11. *See also* UTStarcom Comments at 8-9 (indicating that large carriers "will not relinquish spectrum easily – or even reasonably," and that such carriers "either flatly refuse to partition or lease portions of their spectrum, demand exorbitant compensation, or require other unreasonable terms, none of which serve the public good").

[445] Blooston Comments at 11.

[446] AT&T Wireless Reply Comments at 7.

[447] *Id.* at 7-8.

carriers,[448] monetary credits towards a future spectrum auction in exchange for the return of unused spectrum,[449] and credits towards licensees' construction obligations.[450] We ask for comment on these proposals and also seek comment on additional incentives that are likely to encourage partitioning and disaggregation in rural areas.

149. In addition to the partitioning and disaggregation process, the Commission's rules also facilitate access to spectrum on the secondary market through spectrum leasing. Because our rules further enabling spectrum leasing went into effect on January 24, 2004, we are not yet in a position to evaluate the effectiveness of spectrum leasing in providing access to spectrum in rural areas. Nevertheless, we are encouraged by the record that interested parties will take advantage of our spectrum leasing rules to obtain access to previously "unused" spectrum and provide innovative and new service offerings to the public. Indeed, based upon preliminary information regarding proposed spectrum leasing transactions, we are optimistic that our spectrum leasing rules are affording many new opportunities for access to spectrum, including spectrum in rural areas. During the period from February 2004 through July 2004, the Commission received 64 spectrum leasing filings. Of these filings, 37 are *de facto* transfer leases and 27 are spectrum manager leases. Most filings involve broadband PCS, 39 GHZ (point-to-point microwave), paging, and SMR spectrum. In addition, these filings include spectrum in counties that constitute "rural areas," based upon our default definition for "rural area." Given this preliminary data, we have some basis to believe that existing, market-based incentives are encouraging parties to engage in spectrum leasing arrangements.

150. While the record in response to the *Rural NPRM* indicates that many commenters are optimistic that our spectrum leasing will promote the deployment of wireless services to rural areas and therefore urge the Commission to "wait and see" how secondary markets develop prior to taking any regulatory action to encourage spectrum access,[451] others indicate concern that this market-based mechanism will be an insufficient means of providing spectrum access. For example, OPASTCO/RTG suggest that the spectrum leasing rules will suffer from the same problems as partitioning and disaggregation: "the decision to enter into a spectrum lease with a rural company remains exclusively with the licensee," and if the licensee "determine[s] that the cost of negotiating and executing a spectrum lease with a rural carrier will not yield an acceptable return during the term of such a lease, as most licensees have determined in the partitioning and disaggregation realm, it is unlikely that a lease will ever materialize."[452] OPASTCO/RTG further state that "as is the case with partitioning and disaggregation, the current spectrum leasing rules provide little incentive for large licensees to effectuate leases with rural companies because construction of wireless systems in rural areas is usually unnecessary to help

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[448] *See* Blooston Comments at 12-14. *See also* AT&T Wireless Comments at 10 (recommending the provision of "reverse discounts" to carriers that partition portions of their licensed areas to rural carriers). *But see* Nextel Partners Reply Comments at 8-9 (indicating that it is unfair to favor one class of carrier over another, such as providing financial incentives only for certain lease agreements with a rural telephone company or its subsidiary).

[449] AT&T Wireless Comments at 10.

[450] *See* Blooston Comments at 14 (suggesting that the Commission reduce the build-out requirements for licensees that partition a portion of their license to a rural carrier). *See also* AT&T Wireless Reply Comments at 12 (stating that these credits "would make such transactions more attractive to large carriers").

[451] *See supra* Section III.B.2. ¶¶ 37-41.

[452] OPASTCO/RTG Reply Comments at 5.

larger licensees meet their 'substantial service' build-out requirements."[453] Blooston also notes that, while "spectrum leases may prove to be a valuable tool in facilitating access to unused rural spectrum," there will be "a number of situations" where "carriers will need the certainty and permanence of licensee status that can only be provided by a true partitioning arrangement before a rural telco board of directors or other financing source will approve the expenditure of substantial resources on the construction and operation of a telecommunications system."[454] Accordingly, we seek additional comment on how spectrum leasing is addressing concerns about access to spectrum, particularly from those who have entered into, or are contemplating, such transactions. In particular, we seek comment regarding situations where parties' need for spectrum have been accommodated by spectrum leasing as well as situations where those needs may not have been satisfied by the availability of such leasing.

2. "Keep What You Use" Re-licensing Measures

151. Based upon the record developed in this proceeding, as well as available data on partitioning and disaggregation transactions and preliminary information on spectrum leasing agreements, we believe that our current policies and regulations are working to promote access to "unused" spectrum. Nevertheless, the record also suggests that, for a variety of reasons, there may be instances where these market-based policies may not be adequate to promote access to spectrum in rural areas.[455] As we have already indicated, the rapid provision of broadband and other wireless services to rural areas is of critical importance in accomplishing our statutory and public policy objectives. Accordingly, if we determine that our current policies are insufficient to increase access to spectrum, we may take additional measures to ensure that unused spectrum moves into the hands of those who stand ready and willing to deploy wireless voice and data services to rural Americans.

152. Based upon the record received in response to the *Rural NPRM*, commenters indicate

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[453] *Id. See also* Blooston Comments at 10-11 (stating that although "the spectrum leasing policies and rules adopted in the *Secondary Markets Order* represent important first steps to facilitate broader access to unused spectrum resources," "the existing regulatory scheme for wireless services does not give licensees an adequate incentive to participate in the secondary market, and may not go far enough to ensure the optimally efficient use of spectrum in rural areas").

[454] Blooston Comments at 11.

[455] According to the *Eighth Competition Report*, 270 million people, or 95 percent of the total U.S. population, have three or more different operators (cellular, PCS, and/or SMR) offering mobile telephone service in the counties in which they live. *Eighth Competition Report*, 18 FCC Rcd at 14823 ¶ 84. In contrast, these same counties make up only 52 percent of the total land area of the United States, reflecting the nation's uneven population distribution. *Id.* In other words, there are two or fewer mobile telephony providers (typically cellular carriers) offering service in 48 percent of the country's total land area. The *Eighth Competition Report* notes that, while the newer broadband PCS and digital SMR carriers have "less complete networks," the original cellular licensees have extensive networks providing nearly complete coverage of the continental United States. *Id.* at 14823 ¶ 83. By some estimates, cellular service is available in zip codes in which roughly 99 percent of the U.S. population lives. *Id.* at 14823 n. 286. Given the successful deployment of cellular systems, we continue to examine *infra* whether the potential use of a "keep what you use" approach similar to that found in our cellular unserved licensing rules will help speed the rural deployment of other services, such as PCS and digital SMR networks, which historically have been subject to a "complete forfeiture" approach. In evaluating these different approaches, however, we also recognize that, while cellular service has had over 20 years to mature, the geographic area and "complete forfeiture" model of licensing has had little more than half that time to develop, and it is too early to tell if the geographic market-based licensing approach will lead to similar deployment.

that extending the "keep what you use" to additional wireless services may provide a variety of benefits. As NTCA explains, adopting a "keep what you use" approach "frees up spectrum for other potential users."[456] Likewise, Blooston states that "a modified version of the cellular 'fill in' rule" will "give rural interests an opportunity to serve portions of a larger license that remain unserved after a reasonable period of time has passed."[457] For those services that otherwise would be subject to a "complete forfeiture" approach,[458] a "keep what you use" approach might also have the benefit of allowing future licensees in those services to keep certain portions of their licenses rather than forfeiting the entire license for failure to satisfy certain benchmarks.[459]

153. We also recognize, however, that adopting a "keep what you use" approach may yield certain unintended and potentially detrimental consequences, as asserted by a number of commenters.[460] As an initial matter, commenters suggest that adopting a "keep what you use" approach may not actually result in additional rural deployment, because, if it is economically beneficial for a carrier to deploy services in a particular area, they have sufficient incentive to do so without regulatory intervention. As Nextel Partners explains, "wireless carriers have every incentive to expand their rural service as soon as economically feasible," as well as "to obtain any available value from 'unused' portions of spectrum, assuming that secondary market transactions are cost-efficient and not subject to undue regulation."[461] Similarly, AT&T Wireless states that carriers will deploy services where "[t]here is no reason to believe that, if the Commission were to adopt rules forcing larger carriers to relinquish spectrum or sell it at low prices to other entities if they do not build quickly enough, the new licensees would be any more able to serve the area rapidly if the economics do not support the costs of building out and providing service there."[462] Second, commenters caution that adopting a "keep what you use" approach may upset the valuation of spectrum licenses and chill investment in wireless services.[463] Third, such an approach might result in uneconomic construction, in an attempt to "save" licensed area. According to Sprint, requiring licensees to "use it or lose it" may force carriers "to make the Hobson's choice of making

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[456] NTCA Comments at 9.

[457] Blooston Comments at 15.

[458] *See supra* Sections III.B.2 and *infra* IV.C.4 for discussions of the "complete forfeiture" approach to enforcement of our construction regulations.

[459] *See* RCA *Ex Parte* Comments, Attachment at 2.

[460] We note that this discussion is intended to be representative (but not exhaustive) of the types of concerns raised by commenters in this proceeding.

[461] Nextel Partners Reply Comments at 10.

[462] AT&T Wireless Reply Comments at 6. *See also* Sprint Reply Comments at 12-13 (stating that arguments by rural cellular incumbents that PCS licensees are "'[d]riven solely by profit'" and "that large PCS licensees in particular 'lack the motivation to serve rural communities'" is "at best disingenuous," because all carriers "are driven by profit") (quoting NTCA Comments at 4, 7).

[463] *See* Nextel Communications Reply Comments at 8-9 (stating that "[t]he Commission should consider carefully whether what it is trying to achieve is realistic and be sure that any new policies do not unwittingly erode the necessary investor confidence so critical to continued licensed service deployment in rural markets" and that "[t]he 'use it or lose it' model of taking back spectrum does not convince licensees or investors that the licensee has a reasonable period of time and opportunity to 'protect' unserved areas from encroachment by third parties").

uneconomic investments or forfeiting their licenses in rural areas (even though entry may be justified in the future)."[464] Nextel Partners urges the Commission to refrain from adopting any rules "that might result in the forfeiture of spectrum by a licensee that has *already met* initially established Commission construction benchmarks," indicating that this policy shift "would not only be patently unfair, but might well have the untoward effect of compelling wireless carriers to revise their business plans radically to build out portions of their territories in a manner that is uneconomic and out of step with marketplace demand."[465] Fourth, adopting the "keep what you use" approach may result in numerous administrative and legal costs, including the costs of initially assessing whether the spectrum is being "used," reclaiming the subject spectrum and resolving "any controversy or litigation that may arise as a result," engaging in the re-licensing process, and "waiting to see whether the new licensees actually provide the desired wireless service to the indicated rural territory."[466] Finally, carriers express concern that adopting a "keep what you use" approach may "strip[ ] a licensee of legitimate business opportunities, such as the ability to lease excess spectrum in the secondary market."[467]

154. Given the potential benefits and drawbacks of the "keep what you use" approach, we intend to continue to examine carefully the potential use of this mechanism to increase access to spectrum in this proceeding as well as in future service-specific proceedings. In the *Rural NPRM*, the Commission limited its inquiry regarding spectrum re-licensing and adoption of the "keep what you use" approach to future spectrum allocations only.[468] In this *Further Notice*, however, we extend our inquiry to include all licensed terrestrial wireless services that are within the scope of this proceeding, as well as future spectrum allocations. Accordingly, we see comment on the benefits, if any, of extending the "keep what you use" approach. We ask whether the potential benefits of the "keep what you use" approach, in terms of increasing access to spectrum in rural areas, are likely to outweigh the potential costs. In this regard, commenters are asked to discuss the likelihood that such an approach will in fact cause uneconomic construction. We note that, to the extent that any construction requirement will cause a licensee to deploy facilities in a manner in which it may not otherwise have in the absence of such a rule, any build-out obligation could to some extent be said to cause uneconomic investment or construction. Accordingly, we seek comment on whether a "keep what you use" approach will cause undue disruption or whether it should more appropriately be viewed as one of many factors to be considered by a licensee in determining whether or not to deploy facilities in a given area.

155. We also seek comment on the impact of such a re-licensing approach on secondary markets. Because licensees may wish to recoup some financial benefit from their unused spectrum, rather than simply allowing it to revert to the Commission, a "keep what you use" approach would seem to encourage licensees to engage in more partitioning, disaggregation, and spectrum licensing arrangements. For these reasons, adoption of a "keep what you use" approach might well complement

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[464] Sprint Reply Comments at 12.

[465] Nextel Partners Reply Comments at 4-5.

[466] *Id.* at 7-8.

[467] Blooston Comments at 10. We note that although Blooston discusses the potential drawbacks to "keep what you use" in the context of its applicability to smaller licensed areas, we believe that these drawbacks may apply to larger areas as well. We further note that, in the event we adopt a "keep what you use" re-licensing approach, we are unlikely to introduce regulatory disparity and differentiate between large and small licensed areas.

[468] *See Rural NPRM*, 18 FCC Rcd at 20816 ¶ 25.

our existing market-based policies. On the other hand, we note that certain commenters, such as Nextel Partners and AT&T Wireless, caution that a "keep what you use" approach to spectrum re-licensing "could eliminate long range benefits from the Commission's positive steps taken to foster development of a secondary market in spectrum."[469] We seek clarification on the potential impact of a "keep what you use" approach on our secondary market policies.

156. We acknowledge that any "keep what you use" approach would necessitate certain important administrative determinations, such as identifying what constitutes "use" for particular services and requiring licensees to demonstrate sufficient "use." However, we do not intend to set out a comprehensive definition of spectrum "use" in this proceeding. Should we adopt a "keep what you use" approach, we will examine the definition of "use" and other administrative issues in future service-specific proceedings.[470]

3. Renewal Term Substantial Service Requirements.

157. We also seek comment on whether we should strengthen the application of substantial service performance requirements after initial license terms as a means of encouraging access to spectrum and provision of service in rural areas. The *Report and Order* provided most geographic area licensees with the option of satisfying a substantial service standard if they did not already have such an option.[471] As discussed in Section III.D.1, the unique characteristics and considerations inherent in constructing within rural areas may make it impractical for licensees with population-based build-out requirements to construct in such areas. We believe that enabling licensees to fulfill their construction obligations by providing substantial service affords them the flexibility to deploy facilities in sparsely populated areas that otherwise may not be served. Indeed, the record in this proceeding supports our belief that the substantial service requirement enhances licensee ability to bring service to rural areas. A number of commenters agree that the use of substantial service standards for all geographic area wireless licensees should be extended,[472] with one commenter arguing that our population- or geographic-based build-out requirements are no longer necessary because of changes in the market, and contending that firms already in the market are more likely to acquire spectrum in order to provide niche services, rather

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[469] *See* Nextel Partners Comments at 18, AT&T Wireless Reply Comments at 6.

[470] We note that we have competing concerns associated with adopting a definition of "use" for flexible allocations. At present, many licensees have the flexibility to offer a range of services using their spectrum. Given the broad range of innovative services that are likely, imposing strict usage definitions that would apply over the license term may be neither practical nor desirable as a means of promoting rapid deployment of new services, including broadband applications. Without knowing the specific type of service or services to be provided, it is difficult to devise specific usage definitions. Further, given the undeveloped nature of equipment and the technical requirements to prevent interference, we are concerned that strict usage definitions might have the effect of discouraging the development of spectrally efficient equipment and applications. In any event, given these factors, we believe that determining an appropriate definition of "use" is better left to service-specific proceedings.

[471] *See supra* at ¶¶ 75-78.

[472] *See* Blooston Comments at 16, CTIA Comments at 5, Cingular Comments at 4 n. 11, NRTC Comments at 3-5, Southern LINC Comments at 7, RCA Comments at 8, WCA Comments at 7, Blooston Reply Comments at 7, Southern LINC Reply Comments at 4-6, Sprint Reply Comments at 21-24, WCA Reply Comments at 2, 5, Western Wireless Reply Comments at 9.

than to duplicate the existing services provided by others.[473]

158. We therefore seek comment on the viability of more rigorous substantial service construction requirements for licenses beyond their initial license terms. Given our interest in ensuring that spectrum is available to those who actively seek to deploy facilities, we ask if such a measure would promote access to spectrum and expanded service in sparsely populated areas. We also ask how best to structure any new substantial service requirements for use in renewal license terms that will expand coverage in rural areas. For example, should we require the provision of additional coverage beyond that which is sufficient to satisfy the existing substantial service standard during the initial license term? In other words, is it reasonable to expect a carrier to expand its coverage over time and therefore impose an increasing substantial service requirement? If so, we ask commenters to explain how best to formulate such standards to provide both existing and prospective licensees with flexibility to develop or revise their long-term business plans and build-out strategies but also with sufficient clarity for them to understand what needs to be accomplished and by what date. In addition, we ask commenters to describe any safe harbor provisions that would facilitate compliance or explain why the adoption of a safe harbor for that particular standard would not be appropriate. In addition, given our desire to encourage the deployment of service in rural areas, should we require licensees to demonstrate that some percentage of the rural population of its licensed areas is being covered in order to satisfy its substantial service showing whether or not a competing application is filed against a renewal application? Recognizing the reservations of some to the imposition of performance requirements during renewal license terms,[474] we also seek comment on any disadvantages that might accrue if we were to strengthen substantial service performance after initial terms.

4. Other Alternatives

159. We ask commenters to identify any other methods we might adopt to make unused spectrum available to those better positioned to deploy service in the event our market-based policies fail to do so. For example, as stated earlier, although we believe it is premature at this time to adopt the use of easements, we will continue to consider the potential impact of easements on the incentives of all parties to ensure the highest and best use of the band. Comments in this proceeding provided mixed views on such use. One commenter generally supports such easements provided they permit, but do not

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[473] *See* Sprint Reply Comments at 23-24 (contending that that continued use of population- or geographic-based build-out requirements could undermine the public interest).

[474] *See supra* at ¶ 83. Further, T-Mobile opposes any new performance or other build-out requirements for incumbent licensees. According to T-Mobile, such requirements would fundamentally undermine the integrity of the auction process, but would also work to alter existing build-out plans to the disadvantage of rural consumers by forcing carriers to deploy resources in economically unsound ways. *See* T-Mobile Reply Comments at 4. Cingular adds that the imposition of additional build-out or other performance obligations would wreak havoc on business plans and could drive a number of smaller carriers out of the market. It argues that the Commission would be setting dangerous precedent that build-out obligations are fluid, which would in turn inhibit capital formation in CMRS markets. *See* Cingular Comments at 8. We also recognize some commenters oppose or are skeptical of any further application of substantial service requirements. They claim there is no evidence such requirements facilitate the deployment of wireless services in rural and unserved areas, and they conclude that entities will continue to make build-out decisions based on whether it is economic for them to construct regardless of the availability of a substantial service option. *See* OPASTCO/RTG Comments at 4-5, Dobson Comments at 14, 16, Nextel Partners Comments at 17.

require, licensees to allow the operation of unlicensed devices on their networks.[475] However, others submit that such easements or underlays for the provision of unlicensed services should not be permitted because they believe that unlicensed overlays will interfere with the Commission's secondary market policies,[476] would create uncertainty regarding a licensee's spectrum rights,[477] as well as raise interference concerns.[478] We, nevertheless, remain interested in the role that easements or other authorized secondary uses could play in providing incentives for the development by third parties of new devices and services that will increase access to spectrum, such as software-defined radios and other frequency-agile devices in frequency bands that are otherwise currently restricted to exclusive license holders.[479] Such ability to take advantage of unused portions of licensed spectrum could lead to the development of more equipment at lower costs, a key barrier to entry in rural areas. Nonetheless, we also seek to afford license holders as much reliability in their spectrum usage rights as practicable. In light of the objections of some to the possible use of easements,[480] we ask commenters to clarify their objections and, where possible, provide examples of potential adverse consequences. Should we choose to use such easements, we ask, first, how they could be structured to increase spectrum access and service coverage while also addressing the concerns raised in the comments. Second, after what time period should we allow entities to employ such easements, *e.g.*, immediately after renewal if a certain standard was not met during the initial term, or at some other point?

160. Finally, because we recognize that different wireless services may benefit from different approaches to spectrum access, we ask commenters to identify the specific services to which their proposed approaches should apply and whether there are any services that should be excluded. For example, how should the re-licensing methodologies available for mobile wireless services be different than those for fixed services? Should different approaches be applied to different geographic markets, *i.e.* is it appropriate to apply the same re-licensing method for a nationwide license as well as a MTA-based license?

V. PROCEDURAL MATTERS

A. Final Regulatory Flexibility Analysis

161. The Final Regulatory Flexibility Analysis for this *Report and Order*, as required by Section 604 of the Regulatory Flexibility Act of 1980, 5 U.S.C. § 604, is set forth in Appendix B.

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[475] *See* Nextel Communications Reply Comments at 5.

[476] *See* Cingular Comments at 8.

[477] *See* AT&T Reply Comments at 12, Western Wireless Reply Comments at 12.

[478] See AT&T Comments at 8, Cingular Comments at 8-9, n. 30, CTIA Comments at 8, Dobson Comments at 15, Nextel Communications Reply Comments at 5.

[479] For instance, to increase access to spectrum, we continue to examine the possible benefits of modifying our Part 15 rules on a band-by-band basis for currently assigned spectrum to increase access to spectrum. As one example, in our Cognitive Radio proceeding, we are exploring, *inter alia*, possible changes to our rules that would allow certain unlicensed operations in bands in those areas where spectrum occupancy is low, such as in rural areas. *See Cognitive Radio NRPM* at ¶ 36.

[480] *See, e.g., supra* ¶ 40.

B. Final Paperwork Reduction Act of 1995 Analysis.

162. This document contains new or modified information collection requirements subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104-13. It will be submitted to the Office of Management and Budget (OMB) for review under Section 3507(d) of the PRA. OMB, the general public, and other Federal agencies are invited to comment on the new or modified information collection requirements contained in this proceeding. In addition, we note that pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, *see* 44 U.S.C. 3506(c)(4), we previously sought specific comment on how the Commission might "further reduce the information collection burden for small business concerns with fewer than 25 employees." Written comments by the public on the proposed information collections are due sixty days after the date of publication in the Federal Register. Written comments must be submitted by the OMB on the proposed information collections on or before sixty days after the date of publication in the Federal Register. In addition to filing comments with the Secretary, a copy of any comments on the information collections contained herein should be submitted to Judy Boley Herman, Federal Communications Commission, Room 1-C804, 445 12th Street, S.W., Washington, D.C. 20554, or via the Internet to Judith-B.Herman@fcc.gov, and to Kristy LaLonde, OMB Desk Officer, Room 10234, New Executive Office Building, 725 17th Street, N.W., Washington, D.C. 20503, or via the Internet to Kristy_LaLonde@omb.eop.

163. In addition, we note that pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, *see* 44 U.S.C. 3506(c)(4), we previously sought specific comment on how the Commission might "further reduce the information collection burden for small business concerns with fewer than 25 employees." In this present document, we have assessed the effects of the policy changes contained in this *Report and Order* in terms of the information collection burdens they might impose on small business concerns. We find the following:

164. Cellular cross-interest rule. The *Report and Order* eliminates the remaining components of the cellular cross-interest rule that currently apply only in RSAs and transitions to case-by-case review for cellular transactions. The Commission believes that modification of the rule is necessary to better encourage more transactions and levels of financing that are in the public interest while still maintaining much of the protection afforded by the cellular cross-interest rule. The *Report and Order* agreed with commenters that the approach limiting cross-interests in RSAs, as well as the proposal to eliminate the rule only in counties with more than three competitors, may interfere with investment in rural areas by discouraging certain financing in the RSA portions of a regional market but not in the MSA portions. The Commission believes that elimination of the cellular cross-interest rule will provide greater flexibility to all carriers, including small entities. In order to maintain scrutiny over those cross interests that pose a particular risk to competition in the near term, we impose a reporting requirement in cases in which a licensee with a controlling or otherwise attributable interest in one cellular licensee within an RSA obtains a non-controlling interest of more than 10 percent in the other cellular licensee in an overlapping CGSA. The licensee must notify the Commission within 30 days of the date of consummation of the transaction by filing updated ownership information (using an FCC Form 602) reflecting the specific level of investment. This notification requirement will sunset at the earlier of: (1) five years after the release of this item, or (2) at the cellular licensee's specific renewal deadline. Although this rule change does impose an information collection on all cellular licensees, including those that can be characterized as small business concerns, the Commission believes that the reporting requirement is necessary in order to review any transactions that may pose a risk to competition.

165. The Commission will send a copy of this *Report & Order* in a report to be sent to Congress and the General Accounting Office pursuant to the Congressional Review Act, *see* 5 U.S.C. 801(a)(1)(A).

C. Initial Regulatory Flexibility Analysis

166. As required by the Regulatory Flexibility Act, *see* 5 U.S.C. § 603, the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) of the possible impact on small entities of the proposals in the Further Notice of Proposed Rulemaking. The IRFA is set forth in Appendix C. Written public comments are requested on the IRFA. These comments must be filed in accordance with the same filing deadlines for comments on the Notice of Proposed Rulemaking, and they must have a separate and distinct heading designating them as responses to the Initial Regulatory Flexibility Analysis. The Commission's Consumer Information Bureau, Reference Information Center, will send a copy of this *Further Notice of Proposed Rulemaking*, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration, in accordance with the Regulatory Flexibility Act. *See* 5 U.S.C. § 603(a).

D. Initial Paperwork Reduction Act of 1995 Analysis

167. This Further Notice of Proposed Rulemaking does not contain either a proposed or a modified information collection. Accordingly, we need not seek comment on the impact of this Further Notice on information collections, pursuant to the Paperwork Reduction Act of 1995.

E. *Ex Parte* Rules – Permit-But-Disclose Proceeding

168. This is a permit-but-disclose notice and comment rule making proceeding. *Ex parte* presentations are permitted, except during the Sunshine Agenda period, provided they are disclosed as provided in Commission rules.[481]

F. Comment Dates

169. Pursuant to sections 1.415 and 1.419 of the Commission's rules,[482] interested parties may file comments on or before **[30 days from date of publication in the *Federal Register*]** and reply comments on or before **[60 days from date of publication in the *Federal Register*]**. Comments and reply comments should be filed in WT Docket Nos. 02-381, 01-14, 03-202. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS) or by filing paper copies.[483]

170. Comments filed through the ECFS can be sent as an electronic file via the Internet to http://www.fcc.gov/cgb/ecfs/. Generally, only one copy of an electronic submission must be filed. If multiple docket or rulemaking numbers appear in the caption of this proceeding, however, commenters must transmit one electronic copy of the comments to each docket or rulemaking number referenced in the caption. In completing the transmittal screen, commenters should include their full name, U.S. Postal Service mailing address, and the applicable docket or rulemaking number. Parties may also submit an electronic comment by Internet e-mail. To get filing instructions for e-mail comments, commenters should send an e-mail to ecfs@fcc.gov, and should include the following words in the body of the message, "get form." A sample form and directions will be sent in reply. Parties who choose to file by paper must file an original and four copies of each filing. If more than one docket or rulemaking number

[481] 47 C.F.R. §§ 1.1202, 1.1203, 1.1206.

[482] 47 C.F.R. §§ 1.415, 1.419.

[483] *See* Electronic Filing of Documents in Rulemaking Proceedings, *Order*, 13 FCC Rcd 11322, 11326 (1998).

appears in the caption of this proceeding, commenters must submit two additional copies for each additional docket or rulemaking number.

171. Parties that choose to file by paper must file an original and four copies of each filing. Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail (although we continue to experience delays in receiving U.S. Postal Service mail). The Commission's contractor, Best Copy and Printing, Inc., will receive hand-delivered or messenger-delivered paper filings for the Commission's Secretary at 236 Massachusetts Avenue, NE, Suite 110, Washington, DC 20002. The filing hours at this location will be 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes must be disposed of before entering the building. One copy of all comments should also be sent to the Commission's contractor, Natek, Inc., 445 12th Street, S.W., Suite CY-B402, Washington, D.C. 20554. In addition, parties who choose to file by paper should provide a courtesy copy of each filing to Allen A. Barna, Mobility Division, Wireless Telecommunications Bureau, 445 12th Street, SW, Portals I, Room 6324, Washington, DC 20554 or by email to allen.barna@fcc.gov.

172. Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743. U.S. Postal Service first-class mail, Express Mail, and Priority Mail should be addressed to Natek, Inc., 445 12th Street, SW, Washington, D.C. 20554. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

173. Copies of all filings will be available for public inspection and copying during regular business hours at the FCC Reference Information Center, Room CY-A257, at Portals II, 445 12th St., S.W., Washington, D.C. 20554, and will be placed on the Commission's Internet site. Copies of comments and reply comments will be available through the Commission's contractor, Natek, Inc., 445 12th St., S.W., Room CY-B402, Washington, D.C. 20554, www.bcpiweb.com, 1-800-378-3160.

If you are sending this type of document or using this delivery method...	It should be addressed for delivery to...
Hand-delivered or messenger-delivered paper filings for the Commission's Secretary	236 Massachusetts Avenue, NE, Suite 110, Washington, DC 20002 (8:00 to 7:00 p.m.)
Other messenger-delivered documents, including documents sent by overnight mail (other than United States Postal Service Express Mail and Priority Mail)	9300 East Hampton Drive, Capitol Heights, MD 20743 (8:00 a.m. to 5:30 p.m.)
United States Postal Service first-class mail, Express Mail, and Priority Mail	445 12th Street, SW Washington, DC 20554

174. Parties who choose to file by paper should also submit their comments on diskette. These diskettes, plus one paper copy, should be submitted to: Milton Price, Mobility Division, Wireless Telecommunications Bureau, Federal Communications Commission, at 236 Massachusetts Avenue, N.E., Suite 110, Washington, D.C. 20002. Such a submission should be on a 3.5-inch diskette formatted in an IBM compatible format using Word or compatible software. The diskette should be accompanied by a cover letter and should be submitted in "read only" mode. The diskette should be clearly labeled with the commenter's name, proceeding (including the docket numbers, WT Docket Nos. 02-381, 01-14, 03-202, type of pleading (comment or reply comment), date of submission, and the name of the electronic file on the diskette. The label should also include the following phrase "Disk Copy - Not an Original." Each

diskette should contain only one party's pleadings, preferably in a single electronic file. In addition, commenters must send diskette copies to the Commission's copy contractor, 445 12th Street, S.W., Room CY-B402, Washington, D.C. 20554 (*see* alternative addresses above for delivery by hand or messenger).

175. Regardless of whether parties choose to file electronically or by paper, parties should also file one copy of any documents filed in this docket with the Commission's copy contractor, 445 12th Street S.W., CY-B402, Washington, D.C. 20554 (see alternative addresses above for delivery by hand or messenger).

176. Alternative formats (computer diskette, large print, audio cassette and Braille) are available to persons with disabilities by contacting Brian Millin at (202) 418-7426, TTY (202) 418-2555, or via e-mail to Brian.Millin@fcc.gov. This *Report and Order and Further Notice of Proposed Rulemaking* can also be downloaded in Microsoft Word and ASCII formats at http://www.fcc.gov/wtb.

VI. ORDERING CLAUSES

177. Accordingly, IT IS ORDERED that, pursuant to the authority contained in Sections 4(i), 11, 303(r), 309(j) and 706 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 157, 161, 303(r), and 309(j), this REPORT AND ORDER is hereby ADOPTED.

178. IT IS FURTHER ORDERED that, pursuant to the authority contained in Sections 4(i), 11, 303(r), 309(j) and 706 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 157, 161, 303(r), and 309(j), this FURTHER NOTICE OF PROPOSED RULEMAKING is ADOPTED.

179. IT IS FURTHER ORDERED that the Petition for Reconsideration filed by Cingular Wireless LLC, in WT Docket No. 01-14 on February 13, 2002, and the Petition for Reconsideration filed by Dobson Communications Corp./ Western Wireless Corp./Rural Cellular Corp. in WT Docket No. 01-14 on February 13, 2002 ARE GRANTED, to the extent described above.

180. IT IS FURTHER ORDERED that the rule sections set forth in Appendix A are adopted, effective sixty days from the date of publication in the *Federal Register*.

181. IT IS FURTHER ORDERED that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of the REPORT AND ORDER and FURTHER NOTICE OF PROPOSED RULE MAKING, including the Regulatory Flexibility Analyses, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch

Marlene H. Dortch
Secretary

APPENDIX A

RULE CHANGES

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

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

AUTHORITY: 47 U.S.C. 151, 154(i), 154(j), 155, 225, 303(r), 309 and 325(e).

2. Section 1.919 is amended by redesignating paragraphs (c), (d), and (e) as paragraphs (d), (e), and (f), and by adding paragraph (c) to read as follows:

§ 1.919 Ownership Information.

(a) * * *

(b) * * *

(c) Reporting of Cellular Cross-Ownership Interests.

(1) A cellular licensee of one channel block in a cellular geographic service area (CGSA) must report current ownership information if the licensee, a party that owns a controlling or otherwise attributable interest in the licensee, or a party that actually controls the licensee, obtains a direct or indirect ownership interest of more than 10 percent in a cellular licensee, a party that owns a controlling or otherwise attributable interest in a cellular licensee, or a party that actually controls a cellular licensee, for the other channel block in an overlapping CGSA, if the overlap is located in whole or in part in a Rural Service Area (RSA), as defined in § 22.909 of this chapter. The ownership information must be filed on a FCC Form 602 within 30 days of the date of consummation of the transaction and reflect the specific levels of investment.

(2) For the purposes of paragraph (c) of this section, the following definitions and other provisions shall apply:

(i) Non-controlling interests. A direct or indirect non-attributable interest in both systems is excluded from the reporting requirement set out in paragraph (c)(1) of this section.

(ii) Ownership attribution. For purposes of paragraph (c) of this section, ownership and other interests in cellular licensees will be attributed to their holders pursuant to the following criteria:

(A) Controlling interest shall be attributable. Controlling interest means majority voting equity ownership, any general partnership interest, or any means of actual working control (including negative control) over the operation of the licensee, in whatever manner exercised.

(B) Partnership and other ownership interests and any stock interest amounting to 20 percent or more of the equity, or outstanding stock, or outstanding voting stock of a cellular licensee shall be attributed.

(C) Non-voting stock shall be attributed as an interest in the issuing entity

if in excess of the amounts set forth in paragraph (c)(2)(ii)(B) of this section.

(D) Debt and instruments such as warrants, convertible debentures, options, or other interests (except non-voting stock) with rights of conversion to voting interests shall not be attributed unless and until converted.

(E) Limited partnership interests shall be attributed to limited partners and shall be calculated according to both the percentage of equity paid in and the percentage of distribution of profits and losses.

(F) Officers and directors of a cellular licensee shall be considered to have an attributable interest in the entity with which they are so associated. The officers and directors of an entity that controls a cellular licensee shall be considered to have an attributable interest in the cellular licensee.

(G) Ownership interests that are held indirectly by any party through one or more intervening corporations will be determined by successive multiplication of the ownership percentages for each link in the vertical ownership chain and application of the relevant attribution benchmark to the resulting product, except that if the ownership percentage for an interest in any link in the chain exceeds 50 percent or represents actual control, it shall be treated as if it were a 100 percent interest. (For example, if A owns 20 percent of B, and B owns 40 percent of licensee C, then A's interest in licensee C would be 8 percent. If A owns 20 percent of B, and B owns 51 percent of licensee C, then A's interest in licensee C would be 20 percent because B's ownership of C exceeds 50 percent.)

(H) Any person who manages the operations of a cellular licensee pursuant to a management agreement shall be considered to have an attributable interest in such licensee if such person, or its affiliate, has authority to make decisions or otherwise engage in practices or activities that determine, or significantly influence,

(1) The nature or types of services offered by such licensee;

(2) The terms upon which such services are offered; or

(3) The prices charged for such services.

(I) Any licensee, or its affiliate, who enters into a joint marketing arrangements with a cellular licensee, or its affiliate, shall be considered to have an attributable interest, if such licensee or affiliate has authority to make decisions or otherwise engage in practices or activities that determine, or significantly influence:

(1) The nature or types of services offered by such licensee;

(2) The terms upon which such services are offered; or

(3) The prices charged for such services.

(3) Sunset Provisions. This notification requirement will sunset at the earlier of:

(A) Five years after [INSERT DATE 60 DAYS AFTER DATE OF

PUBLICATION IN THE **FEDERAL REGISTER**], or

(B) At the cellular licensee's specific deadline for renewal.

(d) * * *

(e) * * *

(f) * * *

Part 22 of Title 47 of the Code of Federal Regulations is amended as follows:

3. The authority citation for Part 22 continues to read as follows:

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

4. Section 22.702 is amended to read as follows:

§ 22.702 Eligibility.

Existing and proposed communications common carriers are eligible to hold authorizations to operate conventional central office, interoffice and rural stations in the Rural Radiotelephone Service. Subscribers are also eligible to hold authorizations to operate rural subscriber stations in the Rural Radiotelephone Service.

5. Section 22.913 is amended by revising paragraph (a) to read as follows:

§ 22.913 Effective radiated power limits.

* * * * *

(a) Maximum ERP. In general, the effective radiated power (ERP) of base transmitters and cellular repeaters must not exceed 500 Watts except as described below. The effective radiated power (ERP) of base transmitters and cellular repeaters must not exceed 1000 Watts for those systems operating in areas more than 72 km (45 miles) from international borders that (1) are located in counties with population densities of 100 persons or fewer per square mile, based upon the most recently available population statistics from the Bureau of the Census; or (2) extend coverage into cellular unserved areas, as those areas are defined in Section 22.949 of the Commission's rules. The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.

* * * * *

6. Section 22.942 is removed.

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

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

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

8. Section 24.203 is amended by revising paragraph (a) to read as follows:

§ 24.203 Construction requirements.

(a) Licensees of 30 MHz blocks must serve with a signal level sufficient to provide adequate service to at least one-third of the population in their licensed area within five years of being licensed and two-thirds of the population in their licensed area within ten years of being licensed. Licensees may, in the alternative, provide substantial service to their licensed area within the appropriate five- and ten-year benchmarks. Licensees may choose to define population using the 1990 census or the 2000 census. Failure by any licensee to meet these requirements will result in forfeiture or non-renewal of the license and the licensee will be ineligible to regain it.

* * * * *

9. Section 24.232 is revised to read as follows:

§ 24.232 Power and antenna height limits.

(a) Base stations are limited to 1640 watts peak equivalent isotropically radiated power (EIRP) with an antenna height up to 300 meters HAAT, except as described in paragraph (b) below. *See* Sec. 24.53 for HAAT calculation method. Base station antenna heights may exceed 300 meters with a corresponding reduction in power; *see* Table 1 of this section. In no case may the peak output power of a base station transmitter exceed 100 watts. The service area boundary limit and microwave protection criteria specified in Sec. 24.236 and Sec. 24.237 apply.

Table 1--Reduced Power for Base Station Antenna Heights Over 300 Meters

HAAT in meters	Maximum EIRP watts
≤300	1640
≤500	1070
≤1000	490
≤1500	270
≤2000	160

(b) Base stations that are located in counties with population densities of 100 persons or fewer per square mile, based upon the most recently available population statistics from the Bureau of the Census, are limited to 3280 watts peak equivalent isotropically radiated power (EIRP) with an antenna height up to 300 meters HAAT; *See* Sec. 24.53 for HAAT calculation method. Base station antenna heights may exceed 300 meters with a corresponding reduction in power; *see* Table 2 of this section. In no case may the peak output power of a base station transmitter exceed 200 watts. The service area boundary limit and microwave protection criteria specified in Sec. 24.236 and Sec. 24.237 apply. Operation under this paragraph must be coordinated in advance with all PCS licensees within 120 kilometers (75 miles) of the base station and is limited to base stations located more than 120 kilometers (75 miles) from the Canadian border and more than 75 kilometers (45 miles) from the Mexican border.

Table 2--Reduced Power for Base Station Antenna Heights Over 300 Meters

HAAT in	Maximum

meters	EIRP watts
≤300	3280
≤500	2140
≤1000	980
≤1500	540
≤2000	320

(c) Mobile/portable stations are limited to 2 watts EIRP peak power and the equipment must employ means to limit the power to the minimum necessary for successful communications.

(d) Peak transmit power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an rms-equivalent voltage. The measurement results shall be properly adjusted for any instrument limitations, such as detector response times, limited resolution bandwidth capability when compared to the emission bandwidth, sensitivity, etc., so as to obtain a true peak measurement for the emission in question over the full bandwidth of the channel.

10. Section 24.237 is amended by revising paragraph (d) as follows:

§ 24.237 Interference protection

(a) * * *

(b) * * *

(c) * * *

(d) The licensee must perform an engineering analysis to assure that the proposed facilities will not cause interference to existing OFS stations within the coordination distance specified in Table 3 of a magnitude greater than that specified in the criteria set forth in paragraph (e) and (f) of this section, unless there is prior agreement with the affected OFS licensee. Interference calculations shall be based on the sum of the power received at the terminals of each microwave receiver from all of the applicant's current and proposed PCS operations.

Table 3.--Coordination Distances in Kilometers

	PCS Base Station Antenna HAAT in Meters												
EIRP(W)	**5**	**10**	**20**	**50**	**100**	**150**	**200**	**250**	**300**	**500**	**1000**	**1500**	**2000**
0.1	90	93	99	110	122	131	139	146	152	173	210	239	263
0.5	96	100	105	116	128	137	145	152	158	179	216	245	269
1	99	103	108	119	131	140	148	155	161	182	219	248	272
2	120	122	126	133	142	148	154	159	164	184	222	250	274
5	154	157	161	168	177	183	189	194	198	213	241	263	282
10	180	183	187	194	203	210	215	220	225	240	268	291	310
20	206	209	213	221	229	236	242	247	251	267	296	318	337
50	241	244	248	255	264	271	277	282	287	302	331	354	374
100	267	270	274	282	291	297	303	308	313	329	358	382	401
200	293	296	300	308	317	324	330	335	340	356	386	409	436
500	328	331	335	343	352	359	365	370	375	391	421	440	
1000	354	357	361	369	378	385	391	397	402	418			

1200	361	364	368	376	385	392	398	404	409	425			
1640	372	375	379	388	397	404	410	416	421	437			
2400	384	387	391	399	408	415	423	427	431				
3280	396	399	403	412	419	427	435	439	446				

* * * * *

Part 27 of Title 47 of the Code of Federal Regulations is amended as follows:

11. The authority citation for Part 27 continues to read as follows:

AUTHORITY: 47 U.S.C. 154, 301, 302, 303, 307, 309, 332, 336, and 337 unless otherwise noted.

12. Section 27.50 is amended by revising paragraph (d) to read as follows:

§ 27.50 Power and antenna height limits.

(a) * * *

(b) * * *

(c) * * *

(d) The following power and antenna height requirements apply to stations transmitting in the 1710-1755 MHz and 2110-2155 MHz bands:

(1) The power of each fixed or base station transmitting in the 2110-2155 MHz band and located in any county with population density of 100 or fewer persons per square mile, based upon the most recently available population statistics from the Bureau of the Census, is limited to a peak equivalent isotropically radiated power (EIRP) of 3280 watts and a peak transmitter output power of 200 watts. The power of each fixed or base station transmitting in the 2110-2155 MHz band from any other location is limited to a peak EIRP of 1640 watts and a peak transmitter output power of 100 watts. A licensee operating a base or fixed station utilizing a power of more than 1640 watts EIRP must coordinate such operations in advance with all Government and non-Government satellite entities in the 2025-2110 MHz band. Operations above 1640 watts EIRP must also be coordinated in advance with the following licensees within 120 kilometers (75 miles) of the base or fixed station: all Multipoint Distribution Service (MDS) licensees authorized under Part 21 in the 2155-2160 MHz band and all AWS licensees in the 2110-2155 MHz band.

(2) Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band are limited to a peak EIRP of 1 watt. Fixed stations operating in this band are limited to a maximum antenna height of 10 meters above ground, and mobile and portable stations must employ a means for limiting power to the minimum necessary for successful communications.

* * * * *

Part 90 of Title 47 of the Code of Federal Regulations is amended as follows:

13. The authority citation for Part 90 continues to read as follows:

AUTHORITY: Sections 4(i), 11, 303(g), 303(r), and 332(c)(7) of the Communications Act of 1934, as amended, 47 U.S.C. 154(i), 161, 303(g), 303(r), 332(c)(7).

14. Section 90.155 is amended by revising paragraph (d) to read as follows:

§ 90.155 Time in which station must be placed in operation.

(a) * * *

(b) * * *

(c) * * *

(d) Multilateration LMS EA-licensees, authorized in accordance with § 90.353 of this part, must construct and place in operation a sufficient number of base stations that utilize multilateration technology (*see* paragraph (e) of this section) to provide multilateration location service to one-third of the EA's population within five years of initial license grant, and two-thirds of the population within ten years. Licensees may, in the alternative, provide substantial service to their licensed area within the appropriate five- and ten-year benchmarks. In demonstrating compliance with the construction and coverage requirements, the Commission will allow licensees to individually determine an appropriate field strength for reliable service, taking into account the technologies employed in their system design and other relevant technical factors. At the five- and ten-year benchmarks, licensees will be required to file a map and FCC Form 601 showing compliance with the coverage requirements (*see* § 1.946).

* * * * *

15. Section 90.685 is amended by revising paragraph (b) to read as follows:

§ 90.685 Authorization, construction and implementation of EA licenses.

(a) * * *

(b) EA licensees in the 806-821/851-866 MHz band must, within three years of the grant of their initial license, construct and place into operation a sufficient number of base stations to provide coverage to at least one-third of the population of its EA-based service area. Further, each EA licensee must provide coverage to at least two-thirds of the population of the EA-based service area within five years of the grant of their initial license. EA-based licensees may, in the alternative, provide substantial service to their markets within five years of the grant of their initial license. Substantial service shall be defined as: "Service which is sound, favorable, and substantially above a level of mediocre service."

* * * * *

16. Section 90.767 is amended to read as follows:

§ 90.767 Construction and implementation of EA and Regional licenses.

(a) An EA or Regional licensee must construct a sufficient number of base stations (*i.e.*, base stations for land mobile and/or paging operations) to provide coverage to at least one-third of the

population of its EA or REAG within five years of the issuance of its initial license and at least two-thirds of the population of its EA or REAG within ten years of the issuance of its initial license. Licensees may, in the alternative, provide substantial service to their licensed areas at the appropriate five- and ten-year benchmarks.

(b) Licensees must notify the Commission in accordance with § 1.946 of this chapter of compliance with the Construction requirements of paragraph (a) of this section.

(c) Failure by an EA or Regional licensee to meet the construction requirements of paragraph (a) of this section, as applicable, will result in automatic cancellation of its entire EA or Regional license. In such instances, EA or Regional licenses will not be converted to individual, site-by-site authorizations for already constructed stations.

(d) EA and Regional licensees will not be permitted to count the resale of the services of other providers in their EA or REAG, *e.g.*, incumbent, Phase I licensees, to meet the construction requirement of paragraph (a) of this section, as applicable.

(e) EA and Regional licensees will not be required to construct and place in operation, or commence service on, all of their authorized channels at all of their base stations or fixed stations.

17. Section 90.769 is amended to read as follows:

§ 90.769 Construction and implementation of Phase II nationwide licenses.

(a) A nationwide licensee must construct a sufficient number of base stations (i.e., base stations for land mobile and/or paging operations) to provide coverage to a composite area of at least 750,000 square kilometers or 37.5 percent of the United States population within five years of the issuance of its initial license and a composite area of at least 1,500,000 square kilometers or 75 percent of the United States population within ten years of the issuance of its initial license. Licensees may, in the alternative, provide substantial service to their licensed areas at the appropriate five- and ten-year benchmarks.

(b) Licensees must notify the Commission in accordance with § 1.946 of this chapter of compliance with the Construction requirements of paragraph (a) of this section.

(c) Failure by a nationwide licensee to meet the construction requirements of paragraph (a) of this section, as applicable, will result in automatic cancellation of its entire nationwide license. In such instances, nationwide licenses will not be converted to individual, site-by-site authorizations for already constructed stations.

(d) Nationwide licensees will not be required to construct and place in operation, or commence service on, all of their authorized channels at all of their base stations or fixed stations.

APPENDIX B

FINAL REGULATORY FLEXIBILITY ANALYSIS

As required by the Regulatory Flexibility Act (RFA),[484] an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in the *Notice of Proposed Rulemaking* in WT Docket Nos. 02-381, 01-14, and 03-202, released October 6, 2003 (*Rural NPRM*).[485] The Commission sought written public comment on the proposals in the *Rural NPRM*, including comment on the IRFA. This Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.[486]

A. Need for, and Objectives of, the *Report and Order*

This *Report and Order* adopts several measures, as indicated below, intended to increase the ability of wireless service providers to use licensed spectrum resources flexibly and efficiently to offer a variety of services in a cost-effective manner. The Commission takes steps to promote access to spectrum and facilitate capital formation for entities seeking to serve rural areas or improve service in rural areas.[487] We expect that these decisions will facilitate the deployment of new and advanced wireless services, including broadband services, and thereby foster much-needed economic development.

Definition of "rural area". This *Report and Order* establishes the presumption that, unless otherwise specified in the context of specific policies or regulations governing wireless communications services, counties with a population density of 100 persons or less per square mile constitute "rural areas" for purposes of the Commission's wireless spectrum policies.

Size of geographic service areas and re-licensing issues. The *Report and Order* examines Commission policies affecting access to spectrum and the provision of service in rural areas. In particular, the Commission considers its policies governing the licensing of spectrum, both with respect to initial licensing through the competitive bidding process, as well as subsequent re-licensing after an authorization is returned to the Commission. Specifically, the *Report and Order* affirms that the Commission will continue to establish licensing areas on a service-by-service (or band-by-band) basis as appropriate, based upon the flexibility that such an approach provides and our past experience in determining the initial size of service areas. The Commission also reaffirms that when developing rules for licensing individual services in the future, it will consider using smaller service areas in some spectrum blocks to encourage deployment in rural areas for the service in question.

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[484] *See* 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. §§ 601-612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

[485] 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*, 16 FCC Rcd 11169 (2001) (*Rural NPRM*).

[486] *See* 5 U.S.C. § 604.

[487] This *Report and Order* takes action affecting the provision of commercial and private terrestrial wireless services. While the policies and regulations discussed herein are targeted to promote wireless services in rural areas, we note that certain of our actions will likely have broader application to non-rural areas as well.

Cellular cross-interest rule and conditional security interests to RUS. The Commission also takes the following steps to facilitate increased access to capital for rural licensees. The *Report and Order* eliminates the remaining components of the cellular cross-interest rule that currently apply only in Rural Service Area (RSA) markets and transitions to case-by-case review for cellular transactions, while closely examining those that present a significant likelihood of substantial competitive harm in a market.[488] The Commission also revises the policies governing security interests in wireless licenses by permitting licensees, at their discretion, to grant such interests to the Department of Agriculture's Rural Utilities Service (RUS).

Increase of power limits for certain services. The *Report and Order* amends the Commission's regulations to increase permissible power levels for base stations in certain wireless services that are located in rural areas or that provide coverage to otherwise unserved areas.[489] In doing so, the Commission anticipates that coverage of such areas will be more economical, as licensees may provide increased coverage of rural areas using fewer base stations and less associated infrastructure. The Commission believes these actions will increase licensee flexibility and permit more cost-effective coverage of rural areas.

Substantial service construction requirement. The Commission also amends its regulations to permit certain geographic-area licensees to provide substantial service as a means of complying with their construction requirements, thus countering existing disincentives to build out less densely populated areas.[490]

Infrastructure sharing. Finally, the *Report and Order* concludes that the revised *de facto* control standard for spectrum leasing adopted in the Commission's *Secondary Markets* proceeding generally shall apply for interpreting whether a licensee retains *de facto* control for purposes of Section 310(d) of the Communications Act when it is engaged in an infrastructure sharing arrangement.[491]

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

We received no comments in response to the IRFA. However, as described in section E. below, we have nonetheless considered potential significant economic impacts of our actions on small entities.

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

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.[492] The RFA generally

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[488] *See supra* ¶¶ 63-72.

[489] *See supra* ¶¶ 86-104.

[490] *See supra* ¶¶ 75-84.

[491] *See supra* ¶¶ 112-124.

[492] 5 U.S.C. § 603(b)(3).

defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."[493] In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.[494] 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).[495]

Cellular Licensees. The SBA has developed a small business size standard for small businesses in the category "Cellular and Other Wireless Telecommunications."[496] Under that SBA category, a business is small if it has 1,500 or fewer employees.[497] According to the Bureau of the Census, only twelve firms out of a total of 1,238 cellular and other wireless telecommunications firms operating during 1997 had 1,000 or more employees.[498] Therefore, even if all 12 of these firms were cellular telephone companies, nearly all cellular carriers are small businesses under the SBA's definition.

220 MHz Radio Service – Phase I Licensees. The 220 MHz service has both Phase I and Phase II licenses. Phase I licensing was conducted by lotteries in 1992 and 1993. There are approximately 1,515 such non-nationwide licensees and four nationwide licensees currently authorized to operate in the 220 MHz band. The Commission has not developed a definition of small entities specifically applicable to such incumbent 220 MHz Phase I licensees. To estimate the number of such licensees that are small businesses, we apply the small business size standard under the SBA rules applicable to "Cellular and Other Wireless Telecommunications" companies. This category provides that a small business is a wireless company employing no more than 1,500 persons.[499] According to the Census Bureau data for 1997, only 12 firms out of a total of 1,238 such firms that operated for the entire year, had 1,000 or more employees.[500] If this general ratio continues in the context of Phase I 220 MHz licensees, the Commission estimates that nearly all such licensees are small businesses under the SBA's small business standard.

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[493] *Id.* § 601(6).

[494] *Id.* § 601(3) (incorporating by reference the definition of "small business concern" in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register."

[495] 15 U.S.C. § 632.

[496] 13 C.F.R. § 121.201, North American Industry Classification System (NAICS) code 517212.

[497] *Id.*

[498] U.S. Census Bureau, 1997 Economic Census, Information – Subject Series, Establishment and Firm Size, Table 5 (Employment Size of Firms Subject to Federal Income Tax), NAICS code 517212 (2002). The Census Bureau will be issuing 2002 Economic Census data relating to telecommunications entities in late 2004.

[499] 13 C.F.R. § 121.201, NAICS code 517212.

[500] U.S. Census Bureau, 1997 Economic Census, Subject Series: Information, Establishment and Firm Size (Including Legal Form Organization), Table 5, NAICS code 517212 (2002).

220 MHz Radio Service – Phase II Licensees. The 220 MHz service has both Phase I and Phase II licenses. The Phase II 220 MHz service is subject to spectrum auctions. In the *220 MHz Third Report and Order*, we adopted a small business size standard for defining "small" and "very small" businesses for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.[501] This small business standard indicates that a "small business" is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding $15 million for the preceding three years.[502] A "very small business" is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that do not exceed $3 million for the preceding three years.[503] The SBA has approved these small size standards.[504] Auctions of Phase II licenses commenced on September 15, 1998, and closed on October 22, 1998.[505] In the first auction, 908 licenses were auctioned in three different-sized geographic areas: three nationwide licenses, 30 Regional Economic Area Group (EAG) Licenses, and 875 Economic Area (EA) Licenses. Of the 908 licenses auctioned, 693 were sold.[506] Thirty-nine small businesses won 373 licenses in the first 220 MHz auction. A second auction included 225 licenses: 216 EA licenses and 9 EAG licenses. Fourteen companies claiming small business status won 158 licenses.[507] A third auction included four licenses: 2 BEA licenses and 2 EAG licenses in the 220 MHz Service. No small or very small business won any of these licenses.[508]

Lower 700 MHz Band Licenses. We adopted criteria for defining three groups of small businesses for purposes of determining their eligibility for special provisions such as bidding credits.[509] We have defined a small business as an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding $40 million for the preceding three years.[510] A very small business is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than $15 million for the preceding three years.[511] Additionally, the lower 700

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[501] Amendment of Part 90 of the Commission's Rules to Provide For the Use of the 220-222 MHz Band by the Private Land Mobile Radio Service, *Third Report and Order*, 12 FCC Rcd 10943, 11068-70 ¶¶ 291-295 (1997).

[502] *Id.* at 11068 ¶ 291.

[503] *Id.*

[504] *See* Letter to Daniel Phythyon, Chief, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, Small Business Administration, dated January 6, 1998.

[505] *See generally* "220 MHz Service Auction Closes," *Public Notice*, 14 FCC Rcd 605 (WTB 1998).

[506] *See* "FCC Announces It is Prepared to Grant 654 Phase II 220 MHz Licenses After Final Payment is Made," *Public Notice*, 14 FCC Rcd 1085 (WTB 1999).

[507] *See* "Phase II 220 MHz Service Spectrum Auction Closes," *Public Notice*, 14 FCC Rcd 11218 (WTB 1999).

[508] *See* "Multi-Radio Service Auction Closes," *Public Notice*, 17 FCC Rcd 1446 (WTB 2002).

[509] *See* Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59), *Report and Order*, 17 FCC Rcd 1022 (2002).

[510] *Id.* at 1087-88 ¶ 172.

[511] *Id.*

MHz Service has a third category of small business status that may be claimed for Metropolitan/Rural Service Area (MSA/RSA) licenses. The third category is entrepreneur, which is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than $3 million for the preceding three years.[512] The SBA has approved these small size standards.[513] An auction of 740 licenses (one license in each of the 734 MSAs/RSAs and one license in each of the six EAGs) commenced on August 27, 2002, and closed on September 18, 2002. Of the 740 licenses available for auction, 484 licenses were sold to 102 winning bidders. Seventy-two of the winning bidders claimed small business, very small business or entrepreneur status and won a total of 329 licenses.[514] A second auction commenced on May 28, 2003, and closed on June 13, 2003, and included 256 licenses: 5 EAG licenses and 476 CMA licenses.[515] Seventeen winning bidders claimed small or very small business status and won sixty licenses, and nine winning bidders claimed entrepreneur status and won 154 licenses.[516]

Upper 700 MHz Band Licenses. The Commission released a *Report and Order* authorizing service in the upper 700 MHz band.[517] This auction, previously scheduled for January 13, 2003, has been postponed.[518]

Paging. In the *Paging Second Report and Order*, we adopted a size standard for "small businesses" for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.[519] A small business is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding $15 million for the preceding three years.[520] The SBA has approved this definition.[521] An auction of Metropolitan Economic Area (MEA) licenses commenced on

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[512] *Id.* at 1088 ¶ 173.

[513] *See* Letter to Thomas Sugrue, Chief, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, Small Business Administration, dated August 10, 1999.

[514] *See* "Lower 700 MHz Band Auction Closes," *Public Notice*, 17 FCC Rcd 17272 (WTB 2002).

[515] *See* "Lower 700 MHz Band Auction Closes," *Public Notice*, 18 FCC Rcd 11873 (WTB 2003).

[516] *Id.*

[517] Service Rules for the 746-764 and 776-794 MHz Bands, and Revisions to Part 27 of the Commission's Rules, *Second Memorandum Opinion and Order*, 16 FCC Rcd 1239 (2001).

[518] *See* "Auction of Licenses for 747-762 and 777-792 MHz Bands (Auction No. 31) Is Rescheduled," *Public Notice*, 16 FCC Rcd 13079 (WTB 2003).

[519] Revision of Part 22 and Part 90 of the Commission's Rules to Facilitate Future Development of Paging Systems, *Second Report and Order*, 12 FCC Rcd 2732, 2811-2812 ¶¶ 178-181 (*Paging Second Report and Order*); *see also* Revision of Part 22 and Part 90 of the Commission's Rules to Facilitate Future Development of Paging Systems, *Memorandum Opinion and Order on Reconsideration*, 14 FCC Rcd 10030, 10085-10088 ¶¶ 98-107 (1999).

[520] *Paging Second Report and Order*, 12 FCC Rcd at 2811 ¶ 179.

[521] *See* Letter to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, from Aida Alvarez, Administrator, Small Business Administration, dated December 2, 1998.

February 24, 2000, and closed on March 2, 2000. Of the 2,499 licenses auctioned, 985 were sold.[522] Fifty-seven companies claiming small business status won 440 licenses.[523] An auction of Metropolitan Economic Area (MEA) and EA licenses commenced on October 30, 2001, and closed on December 5, 2001. Of the 15,514 licenses auctioned, 5,323 were sold.[524] One-hundred thirty-two companies claiming small business status purchased 3,724 licenses. A third auction, consisting of 8,874 licenses in each of 175 EAs and 1,328 licenses in all but three of the 51 MEAs commenced on May 13, 2003, and closed on May 28, 2003. Seventy-seven bidders claiming small or very small business status won 2,093 licenses.[525] Currently, there are approximately 24,000 Private Paging site-specific licenses and 74,000 Common Carrier Paging licenses. According to the most recent *Trends in Telephone Service,* 608 private and common carriers reported that they were engaged in the provision of either paging or "other mobile" services.[526] Of these, we estimate that 589 are small, under the SBA-approved small business size standard.[527] We estimate that the majority of private and common carrier paging providers would qualify as small entities under the SBA definition.

Broadband Personal Communications Service (PCS). 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.[528] For Block F, an additional small business size standard for "very small business" was added and is defined as an entity that, together with its affiliates, has average gross revenues of not more than $15 million for the preceding three calendar years.[529] These small business size standards, in the context of broadband PCS auctions, have been approved by the SBA.[530] 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

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[522] *See* "929 and 931 MHz Paging Auction Closes," *Public Notice*, 15 FCC Rcd 4858 (WTB 2000).

[523] *See id.*

[524] *See* "Lower and Upper Paging Band Auction Closes," *Public Notice*, 16 FCC Rcd 21821 (WTB 2002).

[525] *See* "Lower and Upper Paging Bands Auction Closes," *Public Notice*, 18 FCC Rcd 11154 (WTB 2003).

[526] *See Trends in Telephone Service,* Industry Analysis Division, Wireline Competition Bureau, Table 5.3 (Number of Telecommunications Service Providers that are Small Businesses) (May 2002).

[527] 13 C.F.R. § 121.201, NAICS code 517211.

[528] *See* Amendment of Parts 20 and 24 of the Commission's Rules – Broadband PCS Competitive Bidding and the Commercial Mobile Radio Service Spectrum Cap, *Report and Order*, 11 FCC Rcd 7824, 7850-7852 ¶¶ 57-60 (1996); *see also* 47 C.F.R. § 24.720(b).

[529] *See* Amendment of Parts 20 and 24 of the Commission's Rules – Broadband PCS Competitive Bidding and the Commercial Mobile Radio Service Spectrum Cap, *Report and Order*, 11 FCC Rcd 7824, 7852 ¶ 60.

[530] *See* Letter to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, Small Business Administration, dated December 2, 1998.

approximately 40 percent of the 1,479 licenses for Blocks D, E, and F.[531] On March 23, 1999, the Commission reauctioned 155 C, D, E, and F Block licenses; there were 113 small business winning bidders.[532]

Narrowband PCS. The Commission held an auction for Narrowband PCS licenses that commenced on July 25, 1994, and closed on July 29, 1994. A second commenced on October 26, 1994 and closed on November 8, 1994. For purposes of the first two Narrowband PCS auctions, "small businesses" were entities with average gross revenues for the prior three calendar years of $40 million or less.[533] Through these auctions, the Commission awarded a total of 41 licenses, 11 of which were obtained by four small businesses.[534] To ensure meaningful participation by small business entities in future auctions, the Commission adopted a two-tiered small business size standard in the *Narrowband PCS Second Report and Order*.[535] A "small business" is an entity that, together with affiliates and controlling interests, has average gross revenues for the three preceding years of not more than $40 million.[536] A "very small business" is an entity that, together with affiliates and controlling interests, has average gross revenues for the three preceding years of not more than $15 million.[537] The SBA has approved these small business size standards.[538] A third auction commenced on October 3, 2001 and closed on October 16, 2001. Here, five bidders won 317 (MTA and nationwide) licenses.[539] Three of these claimed status as a small or very small entity and won 311 licenses. A fourth auction commenced on September 24, 2003 and closed on September 29, 2003. Here, four bidders 48 licenses. Four of these claimed status as a very small entity and won 48 licenses.[540] Finally, a fifth auction commenced on September 24, 2003 and closed on September 25, 2003. Here, one bidder won five licenses.[541] That bidder claimed status as a

[531] FCC News, "Broadband PCS, D, E and F Block Auction Closes," No. 71744 (rel. January 14, 1997).

[532] *See* "C, D, E, and F Block Broadband PCS Auction Closes," *Public Notice*, 14 FCC Rcd 6688 (WTB 1999).

[533] Implementation of Section 309(j) of the Communications Act – Competitive Bidding Narrowband PCS, *Third Memorandum Opinion and Order and Further Notice of Proposed Rulemaking*, 10 FCC Rcd 175, 196 ¶ 46 (1994).

[534] *See* "Announcing the High Bidders in the Auction of ten Nationwide Narrowband PCS Licenses, Winning Bids Total $617,006,674," *Public Notice*, PNWL 94-004 (rel. Aug. 2, 1994); "Announcing the High Bidders in the Auction of 30 Regional Narrowband PCS Licenses; Winning Bids Total $490,901,787," *Public Notice*, PNWL 94-27 (rel. Nov. 9, 1994).

[535] Amendment of the Commission's Rules to Establish New Personal Communications Services, Narrowband PCS, *Second Report and Order and Second Further Notice of Proposed Rule Making*, 15 FCC Rcd 10456, 10476 ¶ 40 (2000).

[536] *Id.*

[537] *Id.*

[538] *See* Letter to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, Federal Communications Commission from Aida Alvarez, Administrator, Small Business Administration, dated December 2, 1998.

[539] *See* "Narrowband PCS Auction Closes," *Public Notice*, 16 FCC Rcd 18663 (WTB 2001).

[540] *See* "Narrowband PCS Spectrum Auction Closes," *Public Notice*, 18 FCC Rcd 19751 (WTB 2003).

very small entity.

Specialized Mobile Radio (SMR). The Commission awards "small entity" bidding credits in auctions for SMR geographic area licenses in the 800 MHz and 900 MHz bands to firms that had revenues of no more than $15 million in each of the three previous calendar years.[542] The Commission awards "very small entity" bidding credits to firms that had revenues of no more than $3 million in each of the three previous calendar years.[543] The SBA has approved these small business size standards for the 900 MHz Service.[544] The Commission has held auctions for geographic area licenses in the 800 MHz and 900 MHz bands. The 900 MHz SMR auction began on December 5, 1995, and closed on April 15, 1996. Sixty bidders claiming that they qualified as small businesses under the $15 million size standard won 263 geographic area licenses in the 900 MHz SMR band. The 800 MHz SMR auction for the upper 200 channels began on October 28, 1997, and was completed on December 8, 1997. Ten bidders claiming that they qualified as small businesses under the $15 million size standard won 38 geographic area licenses for the upper 200 channels in the 800 MHz SMR band.[545] A second auction for the 800 MHz band was held on January 10, 2002 and closed on January 17, 2002 and included 23 BEA licenses. One bidder claiming small business status won five licenses.[546]

The auction of the 1,050 800 MHz SMR geographic area licenses for the General Category channels began on August 16, 2000, and was completed on September 1, 2000. Eleven bidders won 108 geographic area licenses for the General Category channels in the 800 MHz SMR band qualified as small businesses under the $15 million size standard. In an auction completed on December 5, 2000, a total of 2,800 Economic Area licenses in the lower 80 channels of the 800 MHz SMR service were sold. Of the 22 winning bidders, 19 claimed "small business" status and won 129 licenses. Thus, combining all three auctions, 40 winning bidders for geographic licenses in the 800 MHz SMR band claimed status as small business.

In addition, there are numerous incumbent site-by-site SMR licensees and licensees with extended implementation authorizations in the 800 and 900 MHz bands. We do not know how many firms provide 800 MHz or 900 MHz geographic area SMR pursuant to extended implementation authorizations, nor how many of these providers have annual revenues of no more than $15 million. One firm has over $15 million in revenues. We assume, for purposes of this analysis, that all of the remaining existing extended

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(Continued from previous page)

[541] *See* "Regional Narrowband PCS Spectrum Auction Closes," *Public Notice*, 18 FCC Rcd 19689 (WTB 2003).

[542] 47 C.F.R. § 90.814(b)(1).

[543] *Id.*

[544] *See* Letter to Thomas Sugrue, Chief, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, Small Business Administration, dated August 10, 1999. We note that, although a request was also sent to the SBA requesting approval for the small business size standard for 800 MHz, approval is still pending.

[545] *See* "Correction to Public Notice DA 96-586 'FCC Announces Winning Bidders in the Auction of 1020 Licenses to Provide 900 MHz SMR in Major Trading Areas,'" *Public Notice*, 18 FCC Rcd 18367 (WTB 1996).

[546] *See* "Multi-Radio Service Auction Closes," *Public Notice*, 17 FCC Rcd 1446 (WTB 2002).

implementation authorizations are held by small entities, as that small business size standard is established by the SBA.

Private Land Mobile Radio (PLMR). PLMR systems serve an essential role in a range of industrial, business, land transportation, and public safety activities. These radios are used by companies of all sizes operating in all U.S. business categories, and are often used in support of the licensee's primary (non-telecommunications) business operations. For the purpose of determining whether a licensee of a PLMR system is a small business as defined by the SBA, we could use the definition for "Cellular and Other Wireless Telecommunications." This definition provides that a small entity is any such entity employing no more than 1,500 persons.[547] The Commission does not require PLMR licensees to disclose information about number of employees, so the Commission does not have information that could be used to determine how many PLMR licensees constitute small entities under this definition. Moreover, because PLMR licensees generally are not in the business of providing cellular or other wireless telecommunications services but instead use the licensed facilities in support of other business activities, we are not certain that the Cellular and Other Wireless Telecommunications category is appropriate for determining how many PLMR licensees are small entities for this analysis. Rather, it may be more appropriate to assess PLMR licensees under the standards applied to the particular industry subsector to which the licensee belongs.[548]

The Commission's 1994 Annual Report on PLMRs[549] indicates that at the end of fiscal year 1994, there were 1,087,267 licensees operating 12,481,989 transmitters in the PLMR bands below 512 MHz. Because any entity engaged in a commercial activity is eligible to hold a PLMR license, the revised rules in this context could potentially impact every small business in the United States.

Fixed Microwave Services. Fixed microwave services include common carrier,[550] private-operational fixed,[551] and broadcast auxiliary radio services.[552] Currently, there are approximately 22,015 common carrier fixed licensees and 61,670 private operational-fixed licensees and broadcast auxiliary radio licensees in the microwave services. The Commission has not yet defined a small business with respect to microwave services. For purposes of this FRFA, we will use the SBA's definition applicable to "Cellular and Other Wireless Telecommunications" companies – that is, an entity with no more than

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[547] *See* 13 C.F.R. § 121.201, NAICS code 517212.

[548] *See generally* 13 C.F.R. § 121.201.

[549] Federal Communications Commission, 60th Annual Report, Fiscal Year 1994, at ¶ 116.

[550] 47 C.F.R. §§ 101 *et seq.* (formerly, part 21 of the Commission's Rules).

[551] Persons eligible under parts 80 and 90 of the Commission's rules can use Private Operational-Fixed Microwave services. *See generally* 47 C.F.R. parts 80 and 90. Stations in this service are called operational-fixed to distinguish them from common carrier and public fixed stations. Only the licensee may use the operational-fixed station, and only for communications related to the licensee's commercial, industrial, or safety operations.

[552] Auxiliary Microwave Service is governed by part 74 of Title 47 of the Commission's Rules. *See* 47 C.F.R. Part 74. Available to licensees of broadcast stations and to broadcast and cable network entities, broadcast auxiliary microwave stations are used for relaying broadcast television signals from the studio to the transmitter, or between two points such as a main studio and an auxiliary studio. The service also includes mobile TV pickups, which relay signals from a remote location back to the studio.

1,500 persons.[553] The Commission does not have data specifying the number of these licensees that have more than 1,500 employees, and thus is unable at this time to estimate with greater precision the number of fixed microwave service licensees that would qualify as small business concerns under the SBA's small business size standard. Consequently, the Commission estimates that there are 22,015 or fewer small common carrier fixed licensees and 61,670 or fewer small private operational-fixed licensees and small broadcast auxiliary radio licensees in the microwave services that may be affected by the rules and policies adopted herein. The Commission notes, however, that the common carrier microwave fixed licensee category includes some large entities.

Wireless Communications Services. This service can be used for fixed, mobile, radiolocation, and digital audio broadcasting satellite uses. The Commission defined "small business" for the wireless communications services (WCS) auction as an entity with average gross revenues of $40 million for each of the three preceding years, and a "very small business" as an entity with average gross revenues of $15 million for each of the three preceding years.[554] The SBA has approved these definitions.[555] The FCC auctioned geographic area licenses in the WCS service. In the auction, which commenced on April 15, 1997 and closed on April 25, 1997, there were seven bidders that won 31 licenses that qualified as very small business entities, and one bidder that won one license that qualified as a small business entity. An auction for one license in the 1670-1674 MHz band commenced on April 30, 2003 and closed the same day. One license was awarded. The winning bidder was not a small entity.

39 GHz Service. The Commission defines "small entity" for 39 GHz licenses as an entity that has average gross revenues of less than $40 million in the three previous calendar years.[556] "Very small business" is defined as an entity that, together with its affiliates, has average gross revenues of not more than $15 million for the preceding three calendar years.[557] The SBA has approved these definitions.[558] The auction of the 2,173 39 GHz licenses began on April 12, 2000, and closed on May 8, 2000. The 18 bidders who claimed small business status won 849 licenses.

Local Multipoint Distribution Service. An auction of the 986 Local Multipoint Distribution Service (LMDS) licenses began on February 18, 1998, and closed on March 25, 1998. The Commission defined "small entity" for LMDS licenses as an entity that has average gross revenues of less than $40 million in

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[553] 13 C.F.R. § 121.201, NAICS code 517212.

[554] Amendment of the Commission's Rules to Establish Part 27, the Wireless Communications Service (WCS), *Report and Order*, 12 FCC Rcd 10785, 10879 ¶ 194 (1997).

[555] *See* Letter to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, Small Business Administration, dated December 2, 1998.

[556] *See* Amendment of the Commission's Rules Regarding the 37.0-38.6 GHz and 38.6-40.0 GHz Band, *Report and Order*, 12 FCC Rcd 18600 (1997).

[557] *Id.*

[558] *See* Letter to Margaret Wiener, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, Federal Communications Commission, from Hector Barreto, Administrator, Small Business Administration, dated January 18, 2002.

the three previous calendar years.[559] An additional classification for "very small business" was added and is defined as an entity that, together with its affiliates, has average gross revenues of not more than $15 million for the preceding three calendar years.[560] These regulations defining "small entity" in the context of LMDS auctions have been approved by the SBA.[561] There were 93 winning bidders that qualified as small entities in the LMDS auctions. A total of 93 small and very small business bidders won approximately 277 A Block licenses and 387 B Block licenses. On March 27, 1999, the Commission re-auctioned 161 licenses; there were 32 small and very small business winning bidders that won 119 licenses.

218-219 MHz Service. The first auction of 218-219 MHz (previously referred to as the Interactive and Video Data Service or IVDS) spectrum resulted in 178 entities winning licenses for 594 Metropolitan Statistical Areas (MSAs).[562] Of the 594 licenses, 567 were won by 167 entities qualifying as a small business. For that auction, we defined a small business as an entity that, together with its affiliates, has no more than a $6 million net worth and, after federal income taxes (excluding any carry over losses), has no more than $2 million in annual profits each year for the previous two years.[563] In the *218-219 MHz Report and Order and Memorandum Opinion and Order*, we defined a small business as an entity that, together with its affiliates and persons or entities that hold interests in such an entity and their affiliates, has average annual gross revenues not exceeding $15 million for the preceding three years.[564] A very small business is defined as an entity that, together with its affiliates and persons or entities that hold interests in such an entity and its affiliates, has average annual gross revenues not exceeding $3 million for the preceding three years.[565] The SBA has approved of these definitions.[566] At this time, we cannot estimate the number of licenses that will be won by entities qualifying as small or very small businesses under our rules in future auctions of 218-219 MHz spectrum. Given the success of small businesses in the previous auction, and the prevalence of small businesses in the subscription television services and message communications industries, we assume for purposes of this FRFA that in future auctions, many, and perhaps all, of the licenses may be awarded to small businesses.

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[559] *See* Rulemaking to Amend Parts 1, 2, 21, 25, of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band, Reallocate the 29.5-30.5 Frequency Band, to Establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services, *Second Report and Order, Order on Reconsideration, and Fifth Notice of Proposed Rule Making,* 12 FCC Rcd 12545, 12689-90 ¶ 348 (1997).

[560] *Id.*

[561] *See* Letter to Daniel Phythyon, Chief, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, Small Business Administration, dated January 6, 1998.

[562] *See* "Interactive Video and Data Service (IVDS) Applications Accepted for Filing," *Public Notice*, 9 FCC Rcd 6227 (1994).

[563] Implementation of Section 309(j) of the Communications Act – Competitive Bidding, *Fourth Report and Order*, 9 FCC Rcd 2330 (1994).

[564] Amendment of Part 95 of the Commission's Rules to Provide Regulatory Flexibility in the 218-219 MHz Service, *Report and Order and Memorandum Opinion and Order*, 15 FCC Rcd 1497 (1999).

[565] *Id.*

[566] *See* Letter to Daniel Phythyon, Chief, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, Small Business Administration, dated January 6, 1998.

Location and Monitoring Service (LMS). Multilateration LMS systems use non-voice radio techniques to determine the location and status of mobile radio units. For purposes of auctioning LMS licenses, the Commission has defined "small business" as an entity that, together with controlling interests and affiliates, has average annual gross revenues for the preceding three years not exceeding $15 million.[567] A "very small business" is defined as an entity that, together with controlling interests and affiliates, has average annual gross revenues for the preceding three years not exceeding $3 million.[568] These definitions have been approved by the SBA.[569] An auction for LMS licenses commenced on February 23, 1999, and closed on March 5, 1999. Of the 528 licenses auctioned, 289 licenses were sold to four small businesses. We cannot accurately predict the number of remaining licenses that could be awarded to small entities in future LMS auctions.

Rural Radiotelephone Service. We use the SBA definition applicable to cellular and other wireless telecommunication companies, *i.e.*, an entity employing no more than 1,500 persons.[570] There are approximately 1,000 licensees in the Rural Radiotelephone Service, and the Commission estimates that there are 1,000 or fewer small entity licensees in the Rural Radiotelephone Service that may be affected by the rules and policies adopted herein.

Air-Ground Radiotelephone Service. We use the SBA definition applicable to cellular and other wireless telecommunication companies, *i.e.*, an entity employing no more than 1,500 persons.[571] There are approximately 10 licensees in the Air-Ground Radiotelephone Service, and the Commission estimates that almost all of them qualify as small entities under the SBA definition.

Offshore Radiotelephone Service. This service operates on several ultra high frequency (UHF) TV broadcast channels that are not used for TV broadcasting in the coastal area of the states bordering the Gulf of Mexico. At present, there are approximately 55 licensees in this service. We use the SBA definition applicable to cellular and other wireless telecommunication companies, *i.e.*, an entity employing no more than 1,500 persons.[572] The Commission is unable at this time to estimate the number of licensees that would qualify as small entities under the SBA definition. The Commission assumes, for purposes of this FRFA, that all of the 55 licensees are small entities, as that term is defined by the SBA.

Multiple Address Systems (MAS). Entities using MAS spectrum, in general, fall into two categories: (1) those using the spectrum for profit-based uses, and (2) those using the spectrum for private internal uses. With respect to the first category, the Commission defines "small entity" for MAS licenses as an

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[567] Amendment of Part 90 of the Commission's Rules to Adopt Regulations for Automatic Vehicle Monitoring Systems, *Second Report and Order*, 13 FCC Rcd 15182, 15192 ¶ 20 (1998); *see also* 47 C.F.R. § 90.1103.

[568] *Id.*; *see also* 47 C.F.R. § 90.1103.

[569] *See* Letter to Thomas Sugrue, Chief, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, Small Business Administration, dated February 22, 1999.

[570] 13 C.F.R. § 121.201, NAICS code 517212.

[571] *Id.*

[572] *Id.*

entity that has average gross revenues of less than $15 million in the three previous calendar years.[573] "Very small business" is defined as an entity that, together with its affiliates, has average gross revenues of not more than $3 million for the preceding three calendar years.[574] The SBA has approved of these definitions.[575] The majority of these entities will most likely be licensed in bands where the Commission has implemented a geographic area licensing approach that would require the use of competitive bidding procedures to resolve mutually exclusive applications. The Commission's licensing database indicates that, as of January 20, 1999, there were a total of 8,670 MAS station authorizations. Of these, 260 authorizations were associated with common carrier service. In addition, an auction for 5,104 MAS licenses in 176 EAs began November 14, 2001, and closed on November 27, 2001.[576] Seven winning bidders claimed status as small or very small businesses and won 611 licenses.

With respect to the second category, which consists of entities that use, or seek to use, MAS spectrum to accommodate their own internal communications needs, we note that MAS serves an essential role in a range of industrial, safety, business, and land transportation activities. MAS radios are used by companies of all sizes, operating in virtually all U.S. business categories, and by all types of public safety entities. For the majority of private internal users, the definitions developed by the SBA would be more appropriate. The applicable definition of small entity in this instance appears to be the "Cellular and Other Wireless Telecommunications" definition under the SBA rules. This definition provides that a small entity is any entity employing no more than 1,500 persons.[577] The Commission's licensing database indicates that, as of January 20, 1999, of the 8,670 total MAS station authorizations, 8,410 authorizations were for private radio service, and of these, 1,433 were for private land mobile radio service.

Incumbent 24 GHz Licensees. The rules that we adopt could affect incumbent licensees who were relocated to the 24 GHz band from the 18 GHz band, and applicants who wish to provide services in the 24 GHz band. The Commission did not develop a definition of small entities applicable to existing licensees in the 24 GHz band. Therefore, the applicable definition of small entity is the definition under the SBA rules for "Cellular and Other Wireless Telecommunications." This definition provides that a small entity is any entity employing no more than 1,500 persons.[578] The 1992 Census of Transportation, Communications and Utilities, conducted by the Bureau of the Census, which is the most recent information available, shows that only 12 radiotelephone (now Wireless) firms out of a total of 1,178 such firms that operated during 1992 had 1,000 or more employees.[579] This information notwithstanding, we believe that there are only two licensees in the 24 GHz band that were relocated from the 18 GHz

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[573] *See* Amendment of the Commission's Rules Regarding Multiple Address Systems, *Report and Order*, 15 FCC Rcd 11956, 12008 ¶ 123 (2000).

[574] *Id.*

[575] *See* Letter to Thomas Sugrue, Chief, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, Small Business Administration, dated June 4, 1999.

[576] *See* "Multiple Address Systems Spectrum Auction Closes," *Public Notice*, 16 FCC Rcd 21011 (2001).

[577] *See* 13 C.F.R. § 121.201, NAICS code 517212.

[578] *See id.*

[579] *1992 Census, Series UC-92-S-1* at *Firm Size* 1-123.

band: Teligent[580] and TRW, Inc. It is our understanding that Teligent and its related companies have less than 1,500 employees, though this may change in the future. TRW is not a small entity. Thus, only one incumbent licensee in the 24 GHz band is a small business entity.

Future 24 GHz Licensees. With respect to new applicants in the 24 GHz band, we have defined "small business" as an entity that, together with controlling interests and affiliates, has average annual gross revenues for the three preceding years not exceeding $15 million.[581] "Very small business" in the 24 GHz band is defined as an entity that, together with controlling interests and affiliates, has average gross revenues not exceeding $3 million for the preceding three years.[582] The SBA has approved these definitions.[583] The Commission will not know how many licensees will be small or very small businesses until the auction, if required, is held.

700 MHz Guard Band Licenses. In the 700 MHz Guard Band Order, we adopted a small business size standard for "small businesses" and "very small businesses" for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.[584] A "small business" is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding $15 million for the preceding three years. Additionally, a "very small business" is an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than $3 million for the preceding three years. An auction of 52 MEA licenses commenced on September 6, 2000, and closed on September 21, 2000. Of the 104 licenses auctioned, 96 licenses were sold to nine bidders. Five of these bidders were small businesses that won a total of 26 licenses. A second auction of 700 MHz Guard Band licenses commenced on February 13, 2001 and closed on February 21, 2001. All eight of the licenses auctioned were sold to three bidders. One of these bidders was a small business that won a total of two licenses.[585]

In addition, the SBA has developed a small business size standard for Cable and Other Program Distribution,[586] which includes all such companies generating $12.5 million or less in annual receipts.[587]

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[580] Teligent acquired the Digital Electronic Message Service (DEMS) licenses of FirstMark, the only licensee other than TRW in the 24 GHz band whose license has been modified to require relocation to the 24 GHz band.

[581] Amendments to Parts 1, 2, 87 and 101 of the Commission's Rules To License Fixed Services at 24 GHz, *Report and Order*, 15 FCC Rcd 16934, 16967 ¶ 77 (2000) (*24 GHz Report and Order*); *see also* 47 C.F.R. § 101.538(a)(2).

[582] *24 GHz Report and Order*, 15 FCC Rcd at 16967 ¶ 77; *see also* 47 C.F.R. § 101.538(a)(1).

[583] *See* Letter to Margaret Wiener, Deputy Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, Federal Communications Commission, from Gary Jackson, Assistant Administrator, Small Business Administration, dated July 28, 2000.

[584] See Service Rules for the 746-764 MHz Bands, and Revisions to part 27 of the Commission's Rules, WT Docket No. 99-168, Second Report and Order, 15 FCC Rcd 5299 (2000), 65 FR 17599 (Apr. 4, 2000).

[585] Public Notice, "700 MHz Guard Band Auction Closes," DA 01-478 (rel. Feb. 22, 2001).

[586] 13 C.F.R. § 121.201, NAICS code 517510.

[587] *Id.*

According to Census Bureau data for 1997, there were a total of 1,311 firms in this category, total, that had operated for the entire year.[588] Of this total, 1,180 firms had annual receipts of under $10 million, and an additional 52 firms had receipts of $10 million or more but less than $25 million.[589] Consequently, we estimate that the majority of providers in this service category are small businesses that may be affected by the rules and policies proposed in the *Rural NPRM.*

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

With respect to the cellular cross-interest rule, in the event that a party with a controlling or otherwise attributable interest in one cellular licensee within an RSA obtains a non-controlling interest of more than 10 percent in the other cellular carrier, the Commission will require that the cellular licensee file a notification with the Commission that will include updated ownership information (FCC Form 602) to reflect this investment. This notification requirement will sunset at the earlier of: (1) five years after the release of this item, or (2) at the cellular licensee's specific renewal deadline.

E. Steps Taken To Minimize Significant Economic Impact On Small Entities, And Significant Alternatives Considered

The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities.[590]

The *Report and Order* adopts several measures intended to increase the ability of wireless service providers to use licensed spectrum resources flexibly and efficiently to offer a variety of services in a cost-effective manner. The Commission also takes steps to promote access to spectrum and facilitate capital formation for entities, including small entities, seeking to serve rural areas or improve service in rural areas.[591] As explained *infra,* the actions set forth in this *Order* are consistent with the RFA. Given that many carriers serving or seeking to serve rural areas may be considered small entities for FRFA purposes, the steps taken in the *Report and Order* will aid such entities.

Definition of "rural area". The *Report and Order* establishes a baseline definition of "rural area" that includes those counties (or the equivalent) with a population density of 100 persons or less per

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[588] U.S. Census Bureau, 1997 Economic Census, Subject Series: Information, "Establishment and Firm Size (Including Legal Form of Organization)," Table 4 (issued October 2000).

[589] *Id.*

[590] *See* 5 U.S.C. § 603(c)(1)-(c)(4).

[591] This *Report and Order* takes action affecting the provision of commercial and private terrestrial wireless services. While the policies and regulations discussed herein are targeted to promote wireless services in rural areas, we note that certain of our action will likely have broader application to non-rural areas as well.

square mile. While some commenters supported alternative plans such as defining "rural areas" as any area within an RSA or refraining from adopting new definitions at all, the Commission rejected these alternatives because it believes its county- and population-based definition provides an appropriate practical guideline for carriers, including carriers qualifying as small entities, that serve or seek to serve rural areas. The Commission believes the "100 persons or less" definition best serves the Commission's goals both in ease of the definition's administration and its foundation in widely available population data. Further, by treating the designation not as a uniform definition but rather as a presumption that will apply only to Commission proceedings for which the term "rural area" has not been expressly defined, the Commission can maintain continuity and avoid confusion with respect to definitions of "rural" already in existence for specific policies.

Size of geographic service areas. The *Report and Order* concludes that maintaining the flexibility to establish geographic areas on a service-by-service basis and promoting the use of a variety of service areas, including small areas such as MSAs/RSAs, are in the public interest. Some commenters made an alternative proposal that the Commission should mandate that small markets such as RSAs are available in every future auction in order to ensure that small carriers are able to acquire licenses at auction. The Commission also received a variety of suggestions from commenters on the appropriate size of geographic areas, ranging from a belief that all licenses should be based on MSAs/RSAs to the recommendation of even smaller areas based on counties. The Commission rejects those alternatives, concluding that service area size should not be determined by a bright-line rule as commenters suggested but rather on service-by-service basis so that the Commission can evaluate all factors relevant to the types of spectrum being licensed.

When determining the scope of geographic licenses, the Commission generally considers a number of factors, including the size for each area or areas that will be licensed; the amount of spectrum to be available under each license and whether there should be paired spectrum blocks available for auction. The Commission has designated various sizes of geographic service areas, including smaller market sizes, in order to encourage participation in spectrum auctions and to facilitate deployment of wireless services.[592] The Commission's service-specific approach ensures flexibility while providing an opportunity for spectrum to be made available over small areas such as MSAs or RSAs depending on the record and other considerations relevant to the specific spectrum. This in turn increases the likelihood of service to rural markets by all carriers, including small entities.

Re-licensing issues. In the *Report and Order*, the Commission concludes that because secondary markets rules and policies are aimed at improving access to spectrum in an efficient manner for all carriers, including small entities, the Commission would not revise any of its specific re-licensing policies at this time. Before reaching this conclusion, the Commission sought comment on when, and under what circumstances, the Commission should apply re-licensing provisions to prospective spectrum designations in order to evaluate mechanisms that it could employ in the future that would potentially increase service by making spectrum available to those seeking to serve a given area, particularly if the area is rural in nature. The Commission sought comment on a number of different re-licensing mechanisms that could result in increased access to spectrum, including a "keep what you use" approach, a "complete forfeiture" approach, and geographic overlays.[593] In reaching its decision, the Commission

[592] *See e.g., Lower 700 MHz Report and Order*, 17 FCC Rcd at 1058-62 ¶¶ 89-96 (adopting a combination of large regional areas and small geographic areas based on record).

[593] *See supra* ¶¶ 32-36.

fully considered but rejected, at this time, the "keep what you use" re-licensing approach in the context of future band designations. The Commission indicated that, after being given time to mature and take effect, if the secondary markets rules and policies do not provide sufficient incentives to increase spectrum access in rural areas, the Commission would support future consideration of "keep what you use" approaches in the context of specific service rulemakings for new licensed services.

Cellular cross-interest rule. The *Report and Order* eliminates the remaining components of the cellular cross-interest rule that currently apply only in RSAs and transitions to case-by-case review for cellular transactions. To facilitate additional access to capital by cellular carriers in rural areas, the Commission, before adopting this new rule, sought comment regarding whether the prohibition against cellular cross-interests in all RSAs remains in the public interest and whether the current cross-interest rule should be retained in RSAs with three or fewer CMRS competitors. Alternatively, the Commission sought comment on whether to eliminate the prohibition for all RSAs where the ownership interest being obtained is not a controlling interest (*i.e.*, where the interest is a non-controlling interest and where the transaction otherwise would not require prior FCC approval). The Commission, however, rejected these alternatives and found that elimination of the cellular cross-interest rule and reliance on a uniform case-by-case review process for all aggregations of spectrum and potentially anticompetitive cellular cross-interests in RSAs is currently the better approach as compared to the old, prophylactic limits. The Commission believes that modification of the rule is necessary to better encourage more transactions and levels of financing that are in the public interest while still maintaining much of the protection afforded by the cellular cross-interest rule. The *Report and Order* agreed with commenters that the approach limiting cross-interests in RSAs, as well as the proposal to eliminate the rule only in counties with more than three competitors, may interfere with investment in rural areas by discouraging certain financing in the RSA portions of a regional market but not in the MSA portions. The Commission believes that elimination of the cellular cross-interest rule will provide greater flexibility to all carriers, including small entities.

Conditional security interests to RUS. In this *Report and Order*, the Commission relaxes its security interest policy to permit commercial and private wireless, terrestrial-based licensees to grant RUS a conditional security interest in their FCC licenses.[594] The Commission believes this action will significantly increase the financing opportunities for all licensees, including those classified as small entities, by increasing the value of their available collateral. Although one commenter suggested in the alternative that permitting RUS to obtain a security interest in an FCC license would make the RUS lending process more onerous, the Commission rejected this idea and believes that its new policy will enhance RUS loan opportunities. The Commission believes that allowing FCC licenses to be used as collateral will serve the public interest by facilitating licensees' access to capital. In doing so, the policy will provide increased flexibility for all licensees, including small entities, seeking to expand into rural areas.

Increase of power limits for certain services. The Commission amends its regulations to increase cellular, PCS, and AWS power limits in rural areas as a means of encouraging service to these areas. In doing so, the Commission evaluated the technical and operations rules for the various services at issue and found that increasing power limits may provide measurable benefits without creating harmful interference. Although it considered and alternative proposal to adopt such flexibility for other services in addition to cellular, PCS, and AWS, the Commission rejected this alternative due to lack of support in

[594] *See id.* at ¶¶ 51-58.

the record. However, licensees in other services may file a request for waiver of service-specific power limits.

Substantial service construction requirement. The Commission amends its regulations to provide a substantial service construction benchmark[595] for the following licensees: 30 MHz broadband PCS licensees; 800 MHz SMR licensees (blocks A, B, and C); certain 220 MHz licensees; LMS licensees; and 700 MHz public safety licensees. These licensees now have the option of satisfying their construction requirements by providing substantial service or by complying with other service-specific construction benchmarks already available to them under the Commission's rules.[596] As part of the amendments and in order to provide licensees with guidance, the Commission adopts safe harbors for providing substantial service to rural areas: A licensee will be deemed to have met the substantial service requirement if it provides coverage to at least 75 percent of the geographic area of at least 20 percent of the "rural areas" within its licensed area. With respect to fixed wireless services, the substantial service requirement is met if a licensee constructs at least one end of a permanent link in at least 20 percent of the number of "rural areas" within its licensed area.

The Commission implements this rule change in order to increase licensees' flexibility to develop rural-focused business plans and to allow all licensees, including small entities, to deploy spectrum-based services in more sparsely populated areas without being bound to concrete population or geographic coverage requirements. Certain commenters urged the adoption of a substantial service standard only for those licensees with "small geographic territories." The Commission rejected this alternative, stating that it would only result in focused coverage of populated areas instead of more rural areas. The Commission also rejected proposals for a "very rural area" safe harbor or to modify safe harbors to include a population component. The Commission noted that several commenters proposed as an alternative that a population component be included to make the safe harbor more meaningful for licensees whose licensed areas include counties with large land areas. These commenters argued that in such circumstances, it may be easier for a licensee to satisfy population requirements instead of the substantial service safe harbor. The Commission, in rejecting these alternatives, stated that the safe harbors are not intended to be the only means of providing substantial service, and that it will take into consideration a situation in which a licensee is serving a "very rural area" or a very large geographic area.

Infrastructure sharing. In this *Report and Order*, the Commission adopts a more flexible *de facto* control standard when interpreting whether a licensee (or spectrum lessee) retains *de facto* control for purposes of Section 310(d) when engaging in an infrastructure sharing arrangement involving facilities only. Although the *Secondary Markets Report and Order* initially set out this policy for the purposes of spectrum sharing only, the Commission believes that extending this policy to infrastructure sharing arrangements will provide the potential for savings in both capital costs for the construction of facilities and for improved coverage in rural areas. The Commission noted that most commenters supported the adoption of this more flexible standard, which they believe will help to alleviate the significant financial barriers small regional entities face when constructing wireless networks. Some commenters, on the other hand, stated their concern with the potential for interference that may result from the collocation of antennas. In rejecting this concern as needless, the Commission pointed out that all parties to

[595] *See id.* at ¶¶ 75-84.

[596] *See id.* at ¶ 75.

infrastructure sharing arrangements, including small entities, must continue to comply with the Commission's interference and non-interference related rules and policies.

F. Report to Congress

The Commission will send a copy of the *Report and Order*, including this FRFA, in a report to be sent to Congress pursuant to the Congressional Review Act.[597] In addition, the Commission will send a copy of the *Report and Order*, including the FRFA, to the Chief Counsel for Advocacy of the SBA. A copy of the *Report and Order* and the FRFA (or summaries thereof) will also be published in the Federal Register.[598]

[597] *See* 5 U.S.C. § 801(a)(1)(A).

[598] *See* 5 U.S.C. § 604(b)

for special provisions such as bidding credits and installment payments.[700] A "small business" is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding $15 million for the preceding three years. Additionally, a "very small business" is an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than $3 million for the preceding three years. An auction of 52 MEA licenses commenced on September 6, 2000, and closed on September 21, 2000. Of the 104 licenses auctioned, 96 licenses were sold to nine bidders. Five of these bidders were small businesses that won a total of 26 licenses. A second auction of 700 MHz Guard Band licenses commenced on February 13, 2001 and closed on February 21, 2001. All eight of the licenses auctioned were sold to three bidders. One of these bidders was a small business that won a total of two licenses.[701]

In addition, the SBA has developed a small business size standard for Cable and Other Program Distribution,[702] which includes all such companies generating $12.5 million or less in annual receipts.[703] According to Census Bureau data for 1997, there were a total of 1,311 firms in this category, total, that had operated for the entire year.[704] Of this total, 1,180 firms had annual receipts of under $10 million, and an additional 52 firms had receipts of $10 million or more but less than $25 million.[705] Consequently, we estimate that the majority of providers in this service category are small businesses that may be affected by the rules and policies proposed in the *Further Notice.*

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

The *Further Notice* does not propose any specific reporting, recordkeeping or compliance requirements. However, we seek comment on what, if any, requirements may arise as a result of our discussion in the *Further Notice*.

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

The RFA requires an agency to describe any significant, specifically small business, alternatives that it has considered in developing its 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

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[700] See Service Rules for the 746-764 MHz Bands, and Revisions to part 27 of the Commission's Rules, WT Docket No. 99-168, Second Report and Order, 15 FCC Rcd 5299 (2000), 65 FR 17599 (Apr. 4, 2000).

[701] Public Notice, "700 MHz Guard Band Auction Closes," DA 01-478 (rel. Feb. 22, 2001).

[702] 13 C.F.R. § 121.201, NAICS code 517510.

[703] *Id.*

[704] U.S. Census Bureau, 1997 Economic Census, Subject Series: Information, "Establishment and Firm Size (Including Legal Form of Organization)," Table 4 (issued October 2000).

[705] *Id.*

Other Wireless Telecommunications" definition under the SBA rules. This definition provides that a small entity is any entity employing no more than 1,500 persons.[693] The Commission's licensing database indicates that, as of January 20, 1999, of the 8,670 total MAS station authorizations, 8,410 authorizations were for private radio service, and of these, 1,433 were for private land mobile radio service.

Incumbent 24 GHz Licensees. The rules that we adopt could affect incumbent licensees who were relocated to the 24 GHz band from the 18 GHz band, and applicants who wish to provide services in the 24 GHz band. The Commission did not develop a definition of small entities applicable to existing licensees in the 24 GHz band. Therefore, the applicable definition of small entity is the definition under the SBA rules for "Cellular and Other Wireless Telecommunications." This definition provides that a small entity is any entity employing no more than 1,500 persons.[694] The 1992 Census of Transportation, Communications and Utilities, conducted by the Bureau of the Census, which is the most recent information available, shows that only 12 radiotelephone (now Wireless) firms out of a total of 1,178 such firms that operated during 1992 had 1,000 or more employees.[695] This information notwithstanding, we believe that there are only two licensees in the 24 GHz band that were relocated from the 18 GHz band: Teligent[696] and TRW, Inc. It is our understanding that Teligent and its related companies have less than 1,500 employees, though this may change in the future. TRW is not a small entity. Thus, only one incumbent licensee in the 24 GHz band is a small business entity.

Future 24 GHz Licensees. With respect to new applicants in the 24 GHz band, we have defined "small business" as an entity that, together with controlling interests and affiliates, has average annual gross revenues for the three preceding years not exceeding $15 million.[697] "Very small business" in the 24 GHz band is defined as an entity that, together with controlling interests and affiliates, has average gross revenues not exceeding $3 million for the preceding three years.[698] The SBA has approved these definitions.[699] The Commission will not know how many licensees will be small or very small businesses until the auction, if required, is held.

700 MHz Guard Band Licenses. In the 700 MHz Guard Band Order, we adopted a small business size standard for "small businesses" and "very small businesses" for purposes of determining their eligibility

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[693] *See* 13 C.F.R. § 121.201, NAICS code 517212.

[694] *See id.*

[695] *1992 Census, Series UC-92-S-1* at *Firm Size* 1-123.

[696] Teligent acquired the Digital Electronic Message Service (DEMS) licenses of FirstMark, the only licensee other than TRW in the 24 GHz band whose license has been modified to require relocation to the 24 GHz band.

[697] Amendments to Parts 1, 2, 87 and 101 of the Commission's Rules To License Fixed Services at 24 GHz, *Report and Order*, 15 FCC Rcd 16934, 16967 ¶ 77 (2000) (*24 GHz Report and Order*); *see also* 47 C.F.R. § 101.538(a)(2).

[698] *24 GHz Report and Order*, 15 FCC Rcd at 16967 ¶ 77; *see also* 47 C.F.R. § 101.538(a)(1).

[699] *See* Letter to Margaret Wiener, Deputy Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, Federal Communications Commission, from Gary Jackson, Assistant Administrator, Small Business Administration, dated July 28, 2000.

Air-Ground Radiotelephone Service. We use the SBA definition applicable to cellular and other wireless telecommunication companies, *i.e.*, an entity employing no more than 1,500 persons.[687] There are approximately 10 licensees in the Air-Ground Radiotelephone Service, and the Commission estimates that almost all of them qualify as small entities under the SBA definition.

Offshore Radiotelephone Service. This service operates on several ultra high frequency (UHF) TV broadcast channels that are not used for TV broadcasting in the coastal area of the states bordering the Gulf of Mexico. At present, there are approximately 55 licensees in this service. We use the SBA definition applicable to cellular and other wireless telecommunication companies, *i.e.*, an entity employing no more than 1,500 persons.[688] The Commission is unable at this time to estimate the number of licensees that would qualify as small entities under the SBA definition. The Commission assumes, for purposes of this FRFA, that all of the 55 licensees are small entities, as that term is defined by the SBA.

Multiple Address Systems (MAS). Entities using MAS spectrum, in general, fall into two categories: (1) those using the spectrum for profit-based uses, and (2) those using the spectrum for private internal uses. With respect to the first category, the Commission defines "small entity" for MAS licenses as an entity that has average gross revenues of less than $15 million in the three previous calendar years.[689] "Very small business" is defined as an entity that, together with its affiliates, has average gross revenues of not more than $3 million for the preceding three calendar years.[690] The SBA has approved of these definitions.[691] The majority of these entities will most likely be licensed in bands where the Commission has implemented a geographic area licensing approach that would require the use of competitive bidding procedures to resolve mutually exclusive applications. The Commission's licensing database indicates that, as of January 20, 1999, there were a total of 8,670 MAS station authorizations. Of these, 260 authorizations were associated with common carrier service. In addition, an auction for 5,104 MAS licenses in 176 EAs began November 14, 2001, and closed on November 27, 2001.[692] Seven winning bidders claimed status as small or very small businesses and won 611 licenses.

With respect to the second category, which consists of entities that use, or seek to use, MAS spectrum to accommodate their own internal communications needs, we note that MAS serves an essential role in a range of industrial, safety, business, and land transportation activities. MAS radios are used by companies of all sizes, operating in virtually all U.S. business categories, and by all types of public safety entities. For the majority of private internal users, the definitions developed by the SBA would be more appropriate. The applicable definition of small entity in this instance appears to be the "Cellular and

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[687] *Id.*

[688] *Id.*

[689] *See* Amendment of the Commission's Rules Regarding Multiple Address Systems, *Report and Order*, 15 FCC Rcd 11956, 12008 ¶ 123 (2000).

[690] *Id.*

[691] *See* Letter to Thomas Sugrue, Chief, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, Small Business Administration, dated June 4, 1999.

[692] *See* "Multiple Address Systems Spectrum Auction Closes," *Public Notice*, 16 FCC Rcd 21011 (2001).

no more than $2 million in annual profits each year for the previous two years.[679] In the *218-219 MHz Report and Order and Memorandum Opinion and Order*, we defined a small business as an entity that, together with its affiliates and persons or entities that hold interests in such an entity and their affiliates, has average annual gross revenues not exceeding $15 million for the preceding three years.[680] A very small business is defined as an entity that, together with its affiliates and persons or entities that hold interests in such an entity and its affiliates, has average annual gross revenues not exceeding $3 million for the preceding three years.[681] The SBA has approved of these definitions.[682] At this time, we cannot estimate the number of licenses that will be won by entities qualifying as small or very small businesses under our rules in future auctions of 218-219 MHz spectrum. Given the success of small businesses in the previous auction, and the prevalence of small businesses in the subscription television services and message communications industries, we assume for purposes of this FRFA that in future auctions, many, and perhaps all, of the licenses may be awarded to small businesses.

Location and Monitoring Service (LMS). Multilateration LMS systems use non-voice radio techniques to determine the location and status of mobile radio units. For purposes of auctioning LMS licenses, the Commission has defined "small business" as an entity that, together with controlling interests and affiliates, has average annual gross revenues for the preceding three years not exceeding $15 million.[683] A "very small business" is defined as an entity that, together with controlling interests and affiliates, has average annual gross revenues for the preceding three years not exceeding $3 million.[684] These definitions have been approved by the SBA.[685] An auction for LMS licenses commenced on February 23, 1999, and closed on March 5, 1999. Of the 528 licenses auctioned, 289 licenses were sold to four small businesses. We cannot accurately predict the number of remaining licenses that could be awarded to small entities in future LMS auctions.

Rural Radiotelephone Service. We use the SBA definition applicable to cellular and other wireless telecommunication companies, *i.e.*, an entity employing no more than 1,500 persons.[686] There are approximately 1,000 licensees in the Rural Radiotelephone Service, and the Commission estimates that there are 1,000 or fewer small entity licensees in the Rural Radiotelephone Service that may be affected by the rules and policies adopted herein.

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[679] Implementation of Section 309(j) of the Communications Act – Competitive Bidding, *Fourth Report and Order*, 9 FCC Rcd 2330 (1994).

[680] Amendment of Part 95 of the Commission's Rules to Provide Regulatory Flexibility in the 218-219 MHz Service, *Report and Order and Memorandum Opinion and Order*, 15 FCC Rcd 1497 (1999).

[681] *Id.*

[682] *See* Letter to Daniel Phythyon, Chief, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, Small Business Administration, dated January 6, 1998.

[683] Amendment of Part 90 of the Commission's Rules to Adopt Regulations for Automatic Vehicle Monitoring Systems, *Second Report and Order*, 13 FCC Rcd 15182, 15192 ¶ 20 (1998); *see also* 47 C.F.R. § 90.1103.

[684] *Id.*; *see also* 47 C.F.R. § 90.1103.

[685] *See* Letter to Thomas Sugrue, Chief, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, Small Business Administration, dated February 22, 1999.

[686] 13 C.F.R. § 121.201, NAICS code 517212.

auction for one license in the 1670-1674 MHz band commenced on April 30, 2003 and closed the same day. One license was awarded. The winning bidder was not a small entity.

39 GHz Service. The Commission defines "small entity" for 39 GHz licenses as an entity that has average gross revenues of less than $40 million in the three previous calendar years.[672] "Very small business" is defined as an entity that, together with its affiliates, has average gross revenues of not more than $15 million for the preceding three calendar years.[673] The SBA has approved these definitions.[674] The auction of the 2,173 39 GHz licenses began on April 12, 2000, and closed on May 8, 2000. The 18 bidders who claimed small business status won 849 licenses.

Local Multipoint Distribution Service. An auction of the 986 Local Multipoint Distribution Service (LMDS) licenses began on February 18, 1998, and closed on March 25, 1998. The Commission defined "small entity" for LMDS licenses as an entity that has average gross revenues of less than $40 million in the three previous calendar years.[675] An additional classification for "very small business" was added and is defined as an entity that, together with its affiliates, has average gross revenues of not more than $15 million for the preceding three calendar years.[676] These regulations defining "small entity" in the context of LMDS auctions have been approved by the SBA.[677] There were 93 winning bidders that qualified as small entities in the LMDS auctions. A total of 93 small and very small business bidders won approximately 277 A Block licenses and 387 B Block licenses. On March 27, 1999, the Commission re-auctioned 161 licenses; there were 32 small and very small business winning bidders that won 119 licenses.

218-219 MHz Service. The first auction of 218-219 MHz (previously referred to as the Interactive and Video Data Service or IVDS) spectrum resulted in 178 entities winning licenses for 594 Metropolitan Statistical Areas (MSAs).[678] Of the 594 licenses, 567 were won by 167 entities qualifying as a small business. For that auction, we defined a small business as an entity that, together with its affiliates, has no more than a $6 million net worth and, after federal income taxes (excluding any carry over losses), has

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[672] *See* Amendment of the Commission's Rules Regarding the 37.0-38.6 GHz and 38.6-40.0 GHz Band, *Report and Order*, 12 FCC Rcd 18600 (1997).

[673] *Id.*

[674] *See* Letter to Margaret Wiener, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, Federal Communications Commission, from Hector Barreto, Administrator, Small Business Administration, dated January 18, 2002.

[675] *See* Rulemaking to Amend Parts 1, 2, 21, 25, of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band, Reallocate the 29.5-30.5 Frequency Band, to Establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services, *Second Report and Order, Order on Reconsideration, and Fifth Notice of Proposed Rule Making,* 12 FCC Rcd 12545, 12689-90 ¶ 348 (1997).

[676] *Id.*

[677] *See* Letter to Daniel Phythyon, Chief, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, Small Business Administration, dated January 6, 1998.

[678] *See* "Interactive Video and Data Service (IVDS) Applications Accepted for Filing," *Public Notice*, 9 FCC Rcd 6227 (1994).

were 1,087,267 licensees operating 12,481,989 transmitters in the PLMR bands below 512 MHz. Because any entity engaged in a commercial activity is eligible to hold a PLMR license, the revised rules in this context could potentially impact every small business in the United States.

Fixed Microwave Services. Fixed microwave services include common carrier,[666] private-operational fixed,[667] and broadcast auxiliary radio services.[668] Currently, there are approximately 22,015 common carrier fixed licensees and 61,670 private operational-fixed licensees and broadcast auxiliary radio licensees in the microwave services. The Commission has not yet defined a small business with respect to microwave services. For purposes of this FRFA, we will use the SBA's definition applicable to "Cellular and Other Wireless Telecommunications" companies – that is, an entity with no more than 1,500 persons.[669] The Commission does not have data specifying the number of these licensees that have more than 1,500 employees, and thus is unable at this time to estimate with greater precision the number of fixed microwave service licensees that would qualify as small business concerns under the SBA's small business size standard. Consequently, the Commission estimates that there are 22,015 or fewer small common carrier fixed licensees and 61,670 or fewer small private operational-fixed licensees and small broadcast auxiliary radio licensees in the microwave services that may be affected by the rules and policies adopted herein. The Commission notes, however, that the common carrier microwave fixed licensee category includes some large entities.

Wireless Communications Services. This service can be used for fixed, mobile, radiolocation, and digital audio broadcasting satellite uses. The Commission defined "small business" for the wireless communications services (WCS) auction as an entity with average gross revenues of $40 million for each of the three preceding years, and a "very small business" as an entity with average gross revenues of $15 million for each of the three preceding years.[670] The SBA has approved these definitions.[671] The FCC auctioned geographic area licenses in the WCS service. In the auction, which commenced on April 15, 1997 and closed on April 25, 1997, there were seven bidders that won 31 licenses that qualified as very small business entities, and one bidder that won one license that qualified as a small business entity. An

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[666] 47 C.F.R. §§ 101 *et seq.* (formerly, part 21 of the Commission's Rules).

[667] Persons eligible under parts 80 and 90 of the Commission's rules can use Private Operational-Fixed Microwave services. *See generally* 47 C.F.R. parts 80 and 90. Stations in this service are called operational-fixed to distinguish them from common carrier and public fixed stations. Only the licensee may use the operational-fixed station, and only for communications related to the licensee's commercial, industrial, or safety operations.

[668] Auxiliary Microwave Service is governed by part 74 of Title 47 of the Commission's Rules. *See* 47 C.F.R. Part 74. Available to licensees of broadcast stations and to broadcast and cable network entities, broadcast auxiliary microwave stations are used for relaying broadcast television signals from the studio to the transmitter, or between two points such as a main studio and an auxiliary studio. The service also includes mobile TV pickups, which relay signals from a remote location back to the studio.

[669] 13 C.F.R. § 121.201, NAICS code 517212.

[670] Amendment of the Commission's Rules to Establish Part 27, the Wireless Communications Service (WCS), *Report and Order*, 12 FCC Rcd 10785, 10879 ¶ 194 (1997).

[671] *See* Letter to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, Small Business Administration, dated December 2, 1998.

licenses for the upper 200 channels in the 800 MHz SMR band.[661] A second auction for the 800 MHz band was held on January 10, 2002 and closed on January 17, 2002 and included 23 BEA licenses. One bidder claiming small business status won five licenses.[662]

The auction of the 1,050 800 MHz SMR geographic area licenses for the General Category channels began on August 16, 2000, and was completed on September 1, 2000. Eleven bidders won 108 geographic area licenses for the General Category channels in the 800 MHz SMR band qualified as small businesses under the $15 million size standard. In an auction completed on December 5, 2000, a total of 2,800 Economic Area licenses in the lower 80 channels of the 800 MHz SMR service were sold. Of the 22 winning bidders, 19 claimed "small business" status and won 129 licenses. Thus, combining all three auctions, 40 winning bidders for geographic licenses in the 800 MHz SMR band claimed status as small business.

In addition, there are numerous incumbent site-by-site SMR licensees and licensees with extended implementation authorizations in the 800 and 900 MHz bands. We do not know how many firms provide 800 MHz or 900 MHz geographic area SMR pursuant to extended implementation authorizations, nor how many of these providers have annual revenues of no more than $15 million. One firm has over $15 million in revenues. We assume, for purposes of this analysis, that all of the remaining existing extended implementation authorizations are held by small entities, as that small business size standard is established by the SBA.

Private Land Mobile Radio (PLMR). PLMR systems serve an essential role in a range of industrial, business, land transportation, and public safety activities. These radios are used by companies of all sizes operating in all U.S. business categories, and are often used in support of the licensee's primary (non-telecommunications) business operations. For the purpose of determining whether a licensee of a PLMR system is a small business as defined by the SBA, we could use the definition for "Cellular and Other Wireless Telecommunications." This definition provides that a small entity is any such entity employing no more than 1,500 persons.[663] The Commission does not require PLMR licensees to disclose information about number of employees, so the Commission does not have information that could be used to determine how many PLMR licensees constitute small entities under this definition. Moreover, because PLMR licensees generally are not in the business of providing cellular or other wireless telecommunications services but instead use the licensed facilities in support of other business activities, we are not certain that the Cellular and Other Wireless Telecommunications category is appropriate for determining how many PLMR licensees are small entities for this analysis. Rather, it may be more appropriate to assess PLMR licensees under the standards applied to the particular industry subsector to which the licensee belongs.[664]

The Commission's 1994 Annual Report on PLMRs[665] indicates that at the end of fiscal year 1994, there

[661] *See* "Correction to Public Notice DA 96-586 'FCC Announces Winning Bidders in the Auction of 1020 Licenses to Provide 900 MHz SMR in Major Trading Areas,'" *Public Notice*, 18 FCC Rcd 18367 (WTB 1996).

[662] *See* "Multi-Radio Service Auction Closes," *Public Notice*, 17 FCC Rcd 1446 (WTB 2002).

[663] *See* 13 C.F.R. § 121.201, NAICS code 517212.

[664] *See generally* 13 C.F.R. § 121.201.

[665] Federal Communications Commission, 60th Annual Report, Fiscal Year 1994, at ¶ 116.

and Order.[651] A "small business" is an entity that, together with affiliates and controlling interests, has average gross revenues for the three preceding years of not more than $40 million.[652] A "very small business" is an entity that, together with affiliates and controlling interests, has average gross revenues for the three preceding years of not more than $15 million.[653] The SBA has approved these small business size standards.[654] A third auction commenced on October 3, 2001 and closed on October 16, 2001. Here, five bidders won 317 (MTA and nationwide) licenses.[655] Three of these claimed status as a small or very small entity and won 311 licenses. A fourth auction commenced on September 24, 2003 and closed on September 29, 2003. Here, four bidders 48 licenses. Four of these claimed status as a very small entity and won 48 licenses.[656] Finally, a fifth auction commenced on September 24, 2003 and closed on September 25, 2003. Here, one bidder won five licenses.[657] That bidder claimed status as a very small entity.

Specialized Mobile Radio (SMR). The Commission awards "small entity" bidding credits in auctions for SMR geographic area licenses in the 800 MHz and 900 MHz bands to firms that had revenues of no more than $15 million in each of the three previous calendar years.[658] The Commission awards "very small entity" bidding credits to firms that had revenues of no more than $3 million in each of the three previous calendar years.[659] The SBA has approved these small business size standards for the 900 MHz Service.[660] The Commission has held auctions for geographic area licenses in the 800 MHz and 900 MHz bands. The 900 MHz SMR auction began on December 5, 1995, and closed on April 15, 1996. Sixty bidders claiming that they qualified as small businesses under the $15 million size standard won 263 geographic area licenses in the 900 MHz SMR band. The 800 MHz SMR auction for the upper 200 channels began on October 28, 1997, and was completed on December 8, 1997. Ten bidders claiming that they qualified as small businesses under the $15 million size standard won 38 geographic area

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[651] Amendment of the Commission's Rules to Establish New Personal Communications Services, Narrowband PCS, *Second Report and Order and Second Further Notice of Proposed Rule Making*, 15 FCC Rcd 10456, 10476 ¶ 40 (2000).

[652] *Id.*

[653] *Id.*

[654] *See* Letter to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, Federal Communications Commission from Aida Alvarez, Administrator, Small Business Administration, dated December 2, 1998.

[655] *See* "Narrowband PCS Auction Closes," *Public Notice*, 16 FCC Rcd 18663 (WTB 2001).

[656] *See* "Narrowband PCS Spectrum Auction Closes," *Public Notice*, 18 FCC Rcd 19751 (WTB 2003).

[657] *See* "Regional Narrowband PCS Spectrum Auction Closes," *Public Notice*, 18 FCC Rcd 19689 (WTB 2003).

[658] 47 C.F.R. § 90.814(b)(1).

[659] *Id.*

[660] *See* Letter to Thomas Sugrue, Chief, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, Small Business Administration, dated August 10, 1999. We note that, although a request was also sent to the SBA requesting approval for the small business size standard for 800 MHz, approval is still pending.

as small entities under the SBA definition.

Broadband Personal Communications Service (PCS). 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.[644] For Block F, an additional small business size standard for "very small business" was added and is defined as an entity that, together with its affiliates, has average gross revenues of not more than $15 million for the preceding three calendar years.[645] These small business size standards, in the context of broadband PCS auctions, have been approved by the SBA.[646] 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 percent of the 1,479 licenses for Blocks D, E, and F.[647] On March 23, 1999, the Commission reauctioned 155 C, D, E, and F Block licenses; there were 113 small business winning bidders.[648]

Narrowband PCS. The Commission held an auction for Narrowband PCS licenses that commenced on July 25, 1994, and closed on July 29, 1994. A second commenced on October 26, 1994 and closed on November 8, 1994. For purposes of the first two Narrowband PCS auctions, "small businesses" were entities with average gross revenues for the prior three calendar years of $40 million or less.[649] Through these auctions, the Commission awarded a total of 41 licenses, 11 of which were obtained by four small businesses.[650] To ensure meaningful participation by small business entities in future auctions, the Commission adopted a two-tiered small business size standard in the *Narrowband PCS Second Report*

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[644] *See* Amendment of Parts 20 and 24 of the Commission's Rules – Broadband PCS Competitive Bidding and the Commercial Mobile Radio Service Spectrum Cap, *Report and Order*, 11 FCC Rcd 7824, 7850-7852 ¶¶ 57-60 (1996); *see also* 47 C.F.R. § 24.720(b).

[645] *See* Amendment of Parts 20 and 24 of the Commission's Rules – Broadband PCS Competitive Bidding and the Commercial Mobile Radio Service Spectrum Cap, *Report and Order*, 11 FCC Rcd 7824, 7852 ¶ 60.

[646] *See* Letter to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, Small Business Administration, dated December 2, 1998.

[647] FCC News, "Broadband PCS, D, E and F Block Auction Closes," No. 71744 (rel. January 14, 1997).

[648] *See* "C, D, E, and F Block Broadband PCS Auction Closes," *Public Notice*, 14 FCC Rcd 6688 (WTB 1999).

[649] Implementation of Section 309(j) of the Communications Act – Competitive Bidding Narrowband PCS, *Third Memorandum Opinion and Order and Further Notice of Proposed Rulemaking*, 10 FCC Rcd 175, 196 ¶ 46 (1994).

[650] *See* "Announcing the High Bidders in the Auction of ten Nationwide Narrowband PCS Licenses, Winning Bids Total $617,006,674," *Public Notice*, PNWL 94-004 (rel. Aug. 2, 1994); "Announcing the High Bidders in the Auction of 30 Regional Narrowband PCS Licenses; Winning Bids Total $490,901,787," *Public Notice*, PNWL 94-27 (rel. Nov. 9, 1994).

Upper 700 MHz Band Licenses. The Commission released a *Report and Order* authorizing service in the upper 700 MHz band.[633] This auction, previously scheduled for January 13, 2003, has been postponed.[634]

Paging. In the *Paging Second Report and Order*, we adopted a size standard for "small businesses" for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.[635] A small business is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding $15 million for the preceding three years.[636] The SBA has approved this definition.[637] An auction of Metropolitan Economic Area (MEA) licenses commenced on February 24, 2000, and closed on March 2, 2000. Of the 2,499 licenses auctioned, 985 were sold.[638] Fifty-seven companies claiming small business status won 440 licenses.[639] An auction of Metropolitan Economic Area (MEA) and EA licenses commenced on October 30, 2001, and closed on December 5, 2001. Of the 15,514 licenses auctioned, 5,323 were sold.[640] One-hundred thirty-two companies claiming small business status purchased 3,724 licenses. A third auction, consisting of 8,874 licenses in each of 175 EAs and 1,328 licenses in all but three of the 51 MEAs commenced on May 13, 2003, and closed on May 28, 2003. Seventy-seven bidders claiming small or very small business status won 2,093 licenses.[641] Currently, there are approximately 24,000 Private Paging site-specific licenses and 74,000 Common Carrier Paging licenses. According to the most recent *Trends in Telephone Service,* 608 private and common carriers reported that they were engaged in the provision of either paging or "other mobile" services.[642] Of these, we estimate that 589 are small, under the SBA-approved small business size standard.[643] We estimate that the majority of private and common carrier paging providers would qualify

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[633] Service Rules for the 746-764 and 776-794 MHz Bands, and Revisions to Part 27 of the Commission's Rules, *Second Memorandum Opinion and Order*, 16 FCC Rcd 1239 (2001).

[634] *See* "Auction of Licenses for 747-762 and 777-792 MHz Bands (Auction No. 31) Is Rescheduled," *Public Notice*, 16 FCC Rcd 13079 (WTB 2003).

[635] Revision of Part 22 and Part 90 of the Commission's Rules to Facilitate Future Development of Paging Systems, *Second Report and Order*, 12 FCC Rcd 2732, 2811-2812 ¶¶ 178-181 (*Paging Second Report and Order*); *see also* Revision of Part 22 and Part 90 of the Commission's Rules to Facilitate Future Development of Paging Systems, *Memorandum Opinion and Order on Reconsideration*, 14 FCC Rcd 10030, 10085-10088 ¶¶ 98-107 (1999).

[636] *Paging Second Report and Order*, 12 FCC Rcd at 2811 ¶ 179.

[637] *See* Letter to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, from Aida Alvarez, Administrator, Small Business Administration, dated December 2, 1998.

[638] *See* "929 and 931 MHz Paging Auction Closes," *Public Notice*, 15 FCC Rcd 4858 (WTB 2000).

[639] *See id.*

[640] *See* "Lower and Upper Paging Band Auction Closes," *Public Notice*, 16 FCC Rcd 21821 (WTB 2002).

[641] *See* "Lower and Upper Paging Bands Auction Closes," *Public Notice*, 18 FCC Rcd 11154 (WTB 2003).

[642] *See Trends in Telephone Service,* Industry Analysis Division, Wireline Competition Bureau, Table 5.3 (Number of Telecommunications Service Providers that are Small Businesses) (May 2002).

[643] 13 C.F.R. § 121.201, NAICS code 517211.

auctioned, 693 were sold.[622] Thirty-nine small businesses won 373 licenses in the first 220 MHz auction. A second auction included 225 licenses: 216 EA licenses and 9 EAG licenses. Fourteen companies claiming small business status won 158 licenses.[623] A third auction included four licenses: 2 BEA licenses and 2 EAG licenses in the 220 MHz Service. No small or very small business won any of these licenses.[624]

Lower 700 MHz Band Licenses. We adopted criteria for defining three groups of small businesses for purposes of determining their eligibility for special provisions such as bidding credits.[625] We have defined a small business as an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding $40 million for the preceding three years.[626] A very small business is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than $15 million for the preceding three years.[627] Additionally, the lower 700 MHz Service has a third category of small business status that may be claimed for Metropolitan/Rural Service Area (MSA/RSA) licenses. The third category is entrepreneur, which is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than $3 million for the preceding three years.[628] The SBA has approved these small size standards.[629] An auction of 740 licenses (one license in each of the 734 MSAs/RSAs and one license in each of the six EAGs) commenced on August 27, 2002, and closed on September 18, 2002. Of the 740 licenses available for auction, 484 licenses were sold to 102 winning bidders. Seventy-two of the winning bidders claimed small business, very small business or entrepreneur status and won a total of 329 licenses.[630] A second auction commenced on May 28, 2003, and closed on June 13, 2003, and included 256 licenses: 5 EAG licenses and 476 CMA licenses.[631] Seventeen winning bidders claimed small or very small business status and won sixty licenses, and nine winning bidders claimed entrepreneur status and won 154 licenses.[632]

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[622] *See* "FCC Announces It is Prepared to Grant 654 Phase II 220 MHz Licenses After Final Payment is Made," *Public Notice*, 14 FCC Rcd 1085 (WTB 1999).

[623] *See* "Phase II 220 MHz Service Spectrum Auction Closes," *Public Notice*, 14 FCC Rcd 11218 (WTB 1999).

[624] *See* "Multi-Radio Service Auction Closes," *Public Notice*, 17 FCC Rcd 1446 (WTB 2002).

[625] *See* Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59), *Report and Order*, 17 FCC Rcd 1022 (2002).

[626] *Id.* at 1087-88 ¶ 172.

[627] *Id.*

[628] *Id.* at 1088 ¶ 173.

[629] *See* Letter to Thomas Sugrue, Chief, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, Small Business Administration, dated August 10, 1999.

[630] *See* "Lower 700 MHz Band Auction Closes," *Public Notice*, 17 FCC Rcd 17272 (WTB 2002).

[631] *See* "Lower 700 MHz Band Auction Closes," *Public Notice*, 18 FCC Rcd 11873 (WTB 2003).

[632] *Id.*

1,000 or more employees.[614] Therefore, even if all 12 of these firms were cellular telephone companies, nearly all cellular carriers are small businesses under the SBA's definition.

220 MHz Radio Service – Phase I Licensees. The 220 MHz service has both Phase I and Phase II licenses. Phase I licensing was conducted by lotteries in 1992 and 1993. There are approximately 1,515 such non-nationwide licensees and four nationwide licensees currently authorized to operate in the 220 MHz band. The Commission has not developed a definition of small entities specifically applicable to such incumbent 220 MHz Phase I licensees. To estimate the number of such licensees that are small businesses, we apply the small business size standard under the SBA rules applicable to "Cellular and Other Wireless Telecommunications" companies. This category provides that a small business is a wireless company employing no more than 1,500 persons.[615] According to the Census Bureau data for 1997, only 12 firms out of a total of 1,238 such firms that operated for the entire year, had 1,000 or more employees.[616] If this general ratio continues in the context of Phase I 220 MHz licensees, the Commission estimates that nearly all such licensees are small businesses under the SBA's small business standard.

220 MHz Radio Service – Phase II Licensees. The 220 MHz service has both Phase I and Phase II licenses. The Phase II 220 MHz service is subject to spectrum auctions. In the *220 MHz Third Report and Order*, we adopted a small business size standard for defining "small" and "very small" businesses for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.[617] This small business standard indicates that a "small business" is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding $15 million for the preceding three years.[618] A "very small business" is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that do not exceed $3 million for the preceding three years.[619] The SBA has approved these small size standards.[620] Auctions of Phase II licenses commenced on September 15, 1998, and closed on October 22, 1998.[621] In the first auction, 908 licenses were auctioned in three different-sized geographic areas: three nationwide licenses, 30 Regional Economic Area Group (EAG) Licenses, and 875 Economic Area (EA) Licenses. Of the 908 licenses

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[614] U.S. Census Bureau, 1997 Economic Census, Information – Subject Series, Establishment and Firm Size, Table 5 (Employment Size of Firms Subject to Federal Income Tax), NAICS code 517212 (2002). The Census Bureau will be issuing 2002 Economic Census data relating to telecommunications entities in late 2004.

[615] 13 C.F.R. § 121.201, NAICS code 517212.

[616] U.S. Census Bureau, 1997 Economic Census, Subject Series: Information, Establishment and Firm Size (Including Legal Form Organization), Table 5, NAICS code 517212 (2002).

[617] Amendment of Part 90 of the Commission's Rules to Provide For the Use of the 220-222 MHz Band by the Private Land Mobile Radio Service, *Third Report and Order*, 12 FCC Rcd 10943, 11068-70 ¶¶ 291-295 (1997).

[618] *Id.* at 11068 ¶ 291.

[619] *Id.*

[620] *See* Letter to Daniel Phythyon, Chief, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, Small Business Administration, dated January 6, 1998.

[621] *See generally* "220 MHz Service Auction Closes," *Public Notice*, 14 FCC Rcd 605 (WTB 1998).

as easements[607] to move unused or underused spectrum to those carriers who may be able to use it more intensively. At the same time, the Commission seeks comment on the economic impact of employing the above approaches and whether there are different services that may benefit from a different approach to expanded spectrum access.

B. Legal Basis.

The Commission tentatively concludes that it has authority under Sections 4(i), 11, 303(r), 309(j) and 706 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 157, 161, 303(r), and 309(j).

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

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 rules adopted herein.[608] The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."[609] In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.[610] 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).[611]

Cellular Licensees. The SBA has developed a small business size standard for small businesses in the category "Cellular and Other Wireless Telecommunications."[612] Under that SBA category, a business is small if it has 1,500 or fewer employees.[613] According to the Bureau of the Census, only twelve firms out of a total of 1,238 cellular and other wireless telecommunications firms operating during 1997 had

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(Continued from previous page)

[606] *See supra* ¶¶ 159-161.

[607] *See supra* ¶¶ 162-163.

[608] 5 U.S.C. § 604(a)(3).

[609] 5 U.S.C. § 601(6).

[610] 5 U.S.C. § 601(3) (incorporating by reference the definition of "small business concern" in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register."

[611] 15 U.S.C. § 632.

[612] 13 C.F.R. § 121.201, North American Industry Classification System (NAICS) code 517212.

[613] *Id.*

APPENDIX C

INITIAL REGULATORY FLEXIBILITY ANALYSIS

As required by the Regulatory Flexibility Act of 1980, as amended (RFA),[599] the Commission has prepared this present Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on a substantial number of small entities by the policies and rules proposed in this *Further Notice of Proposed Rulemaking* (*Further Notice*). Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments on the *Further Notice* provided in paragraph 183 of the item. The Commission will send a copy of the *Further Notice*, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).[600] In addition, the *Further Notice* and IRFA (or summaries thereof) will be published in the Federal Register.[601]

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

In the *Further Notice*, the Commission seeks to expand upon the record received in response to the *Notice of Proposed Rulemaking* in WT Dockets 02-381, 01-14, and 03-202, with respect to additional measures that the Commission can take in order to promote the further expansion of spectrum-based services into rural areas. As the Commission observed in the *Report and Order*, there may be circumstances in which our market-oriented policies lack the ability to foster access to spectrum and deployment of wireless service in rural areas.[602] In situations such as these, therefore, it may be appropriate to impose renewal-term performance requirements for both existing and future licenses in order to continue to encourage the provisioning of wireless service to rural areas.[603] Based on these observations, the *Further Notice* seeks comment in the following areas.

First, the Commission seeks comment on the appropriate mechanism to further ensure that spectrum continues to be put to its highest valued use. Specifically, the *Further Notice* seeks additional comment concerning the effectiveness of the Commission's partitioning, disaggregation, and secondary markets rules as well as other market-based policies and rules in making wireless services available in more rural areas.[604]

Second, the Commission also seeks comment on the potential use of "keep what you use" relicensing mechanisms,[605] renewal term substantial service requirements,[606] and other alternatives such

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[599] *See* 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. § 601 – 612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

[600] *See* 5 U.S.C. § 603(a).

[601] *See* 5 U.S.C. § 603(a).

[602] *See supra* ¶¶ 39-41.

[603] *See supra* ¶ 39.

[604] *See supra* ¶¶ 146-151.

[605] *See supra* ¶¶ 152-158.

thereof, for small entities.[706]

As stated, this *Further Notice* seeks detailed comment on additional measures that the Commission can take in order to promote the further deployment of wireless services to rural and underserved areas. As a general matter, it is reasonable to conclude that targeted programs designed to encourage deployment of services in high cost or hard-to-serve rural areas could impose additional regulatory requirements on a substantial number of carriers, including small entities. Overall, however, the Commission believes that by creating further opportunities for carriers to serve rural areas, small entities could see a significant positive economic impact as a result of a new ability to deploy their services in smaller, rural areas to which their business plans may be better suited. A more specific discussion of the impact to small entities is detailed below.

In this *Further Notice*, the Commission seeks additional comment on the effectiveness of its current partitioning, disaggregation, and secondary markets spectrum leasing rules in the deployment of wireless service to rural areas. Specifically, the Commission seeks to develop a better understanding of the ways in which these rules may be insufficient to promote access to spectrum for all carriers, including small entities. For example, the Commission seeks comment on an alternative proposal initially suggested by a previous commenter, which would modify the current rules to provide bidding credits for auction winners that commit to partitioning portions of their licenses to rural carriers. This plan could impact all rural carriers, including small entities, by giving them greater access to spectrum. In addition, the Commission also requests comment on an alternative approach to the current spectrum leasing rules that would require carriers to take affirmative steps to enter into spectrum leasing arrangements, such as requiring them to report leasing requests made to them and the reasons the requests did not result in a lease. An alternative such as this could impact small entities by enabling them to enter smaller spectrum leasing arrangements for which they may be better suited.

The *Further Notice* also seeks comment on the potential use of "keep what you use" relicensing mechanisms as well as renewal term substantial service requirements in order to further encourage the provisioning of wireless service to rural areas. However, the Commission also seeks comment on the alternative raised by commenters that a "keep what you use" approach could potentially impede the efforts taken by the Commission with the secondary markets rules. In addition, the *Further Notice* requests comment on an alternative approach that would adopt a substantial service construction requirement for licenses that are beyond their initial terms. In this respect, the Commission asks whether such measures would promote access to spectrum in sparsely populated areas and thereby ease the way for carriers, including small entities, to serve rural and underserved areas.

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

None.

[706] 5 U.S.C. § 603 (c)(1)-(4).

APPENDIX D

LIST OF COMMENTING PARTIES
WT DOCKET NOS. 03-202, 02-381, 01-14

COMMENTS

AT&T Wireless Services, Inc. (AT&T Wireless)
Blanchard, Lewis
Blooston Law Firm (Blooston)
Cellular Telecommunications and Internet Association (CTIA)
Cingular Wireless LLC (Cingular)
Connell, Dan
Council Tree Communications, Inc. (Council Tree)
Dobson Communications Corporation (Dobson)
Fiene, Curtis L.
Histed, Edward
Holbrook, D.
Itron, Inc. (Itron)
Klang, Kirsten
MDS America, Incorporated (MDS America)
Millry Corporation (Millry)
National Rural Telecommunications Cooperative (NRTC)
National Telecommunications Cooperative Association (NTCA)
Nextel Partners, Inc. (Nextel Partners)
NTCH, Inc. (NTCH)
Organization for the Promotion and Advancement of Small Telecommunications Companies/Rural Telecommunications Group (OPASTCO/RTG)
Ploof, Randall
Rizzo, Ronald
Rural Cellular Association (RCA)
Schultz, Michael
Southern Communications Services, Inc. D/B/A Southern LINC (Southern LINC)
Thesen, Colleen
United States Cellular Corporation (USCC)
UTStarcom, Inc. (UTStarcom)
Watson, James
Wireless Communications Association International, Inc. (WCAI)

REPLY COMMENTS

American Mobile Telecommunications Association, Inc. (AMTA)
Arctic Slope Telephone Association Cooperative, Inc. (Arctic Slope)
AT&T Wireless Services, Inc. (AT&T Wireless)
Blooston Law Firm (Blooston)
DIRECTV, Inc. (DIRECTV)
Ericsson, Inc. (Ericsson)
Gleaton, Bill
Hughes Network Systems, Inc. (Hughes)
Industrial Telecommunications Association, Inc. (ITA)

Nextel Communications, Inc. (Nextel Communications)
Nextel Partners, Inc. (Nextel Partners)
Organization for the Promotion and Advancement of Small Telecommunications Companies/Rural Telecommunications Group (OPASTCO/RTG)
Skybridge L.L.C. (Skybridge)
Southern Communications Services, Inc. D/B/A Southern LINC (Southern LINC)
Sprint PCS L.P. d/b/a Sprint PCS (Sprint)
T-Mobile USA, Inc. (T-Mobile)
United States Cellular Corporation (USCC)
Western Wireless Corporation (Western Wireless)
Wireless Communications Association International, Inc. (WCAI)
XM Radio Inc. (XM Radio)

EX PARTES/LATE FILED

Andersen, Kent
Bruenning, Michael
Byrom, Liz
Cellular Telecommunications and Internet Association (CTIA)
Dobson Communications Corp. (Dobson)
Ericsson, Inc.
Gail, Gary
General Electric Capital Corporation
Knipe, Chris
Ledger, John H.
Nextel Partners, Inc. (Nextel Partners)
Nortel Networks (Nortel)
Nunez, Alexandra
Peede, Carl W.
Qualcomm, Inc.
Rural Cellular Association (RCA)
Rural Utilities Service
Starchild

PETITIONS FOR RECONSIDERATION – WT Docket No. 01-14

Cingular Wireless LLC (Cingular)
Dobson Communications Corp./ Western Wireless Corp./Rural Cellular Corp. (Dobson/Western/RCC)
Sprint PCS L.P. d/b/a Sprint PCS (Sprint)
Cellular Telecommunications & Internet Association (CTIA)
Verizon Wireless (Verizon)

YEAR 2002 BIENNIAL REGULATORY REVIEW COMMENTS – WT Docket 02-310

Dobson Communications Corp., Rural Cellular Corp. and Western Wireless Corp.
Cellular Telecommunications & Internet Association (CTIA)

STATEMENT OF
CHAIRMAN MICHAEL K. POWELL

Re: Facilitating the Provision of Spectrum-Based Services to Rural Areas and Promoting Opportunities for Rural Telephone Companies to Provide Spectrum-Based Services (WT Docket No. 02-38); et al., Report and Order and Further Notice of Proposed Rulemaking.

Encouraging increased development and deployment of spectrum-based services to rural areas is vital to achieve the Commission's dual objectives of promoting increased facilities-based competition and providing ubiquitous, affordable broadband services to all Americans. Today's Agenda Meeting focuses on providing carriers sufficient incentives, financing opportunities, and access to spectrum to deploy inexpensive wireless services in rural areas.

I remain committed to facilitating wireless services to rural areas thereby enabling Americans, regardless of where they travel, reside, or conduct business, to communicate effectively. The importance of this objective becomes clear when one realizes that of the 3,200 counties in America, approximately 72 percent are rural and that 21 percent of all Americans reside in these rural counties. These Americans are entitled to the same benefits and choices as those residing in urban or populated areas. In recent visits to Tennessee and South Dakota, I saw first hand the transformative power that broadband communications access can have in rural America. Economic development, education, and health care can benefit when our rural communities get connected.

Today's Order adopts initiatives and policies aimed directly at facilitating access to capital and lowering regulatory and market barriers to spectrum and infrastructure in rural areas. Giving rural licensees the option of granting the Department of Agriculture's Rural Utilities Service a conditional security interest in their spectrum licenses will greatly enhance the licensees' financing opportunities. By eliminating the absolute bar against rural cellular cross-interests and transitioning to a case-by-case review of rural license transfers, the Commission can more effectively guard against anticompetitive transactions without prohibiting transactions that are in the public interest. This Order also relaxes build-out and emissions requirements for rural carriers, which will increase the flexibility of licensees to tailor spectrum-based services to the needs of their customers located in sparsely populated areas.

In an increasingly mobile world, Americans demand seamless and reliable wireless services. Through the adoption of this Order and our complementary actions in the *Secondary Markets* and *Unlicensed Devices* proceedings, we are bolstering this objective by enhancing licensees financing opportunities, streamlining secondary market transactions, and encouraging increased competition to advance the interests of rural America.

STATEMENT OF COMMISSIONER MICHAEL J. COPPS APPROVING IN PART, DISSENTING IN PART

RE: Facilitating the Provision of Spectrum-Based Services to Rural Areas and Promoting Opportunities for Rural Telephone Companies To Provide Spectrum-Based Services; 2000 Biennial Review Spectrum Aggregation Limits for Commercial Mobile Radio Services; and Increasing Flexibility To Promote Access to and the Efficient and Intensive Use of Spectrum and the Widespread Deployment of Wireless Services, and To Facilitate Capital Formation.

When I asked for this proceeding to be initiated a number of years ago, my hope was that the Commission could find a way to improve our efforts to promote wireless service in rural areas. Anyone who lives in rural America knows first hand that rural consumers have fewer choices of carriers, more holes in their coverage, and that there are still areas of our country that have no service at all. I hoped that this proceeding would begin a serious process of establishing a real strategy at the Commission for how to bring the power of wireless communications more fully to rural Americans. But I believe we come up short today.

There are things I support in this Order. On the positive side, we begin the process of giving carriers the authority to increase power in rural areas where interference will not be a problem. This will reduce the costs of serving these areas, and it's a good step that I applaud. We also state that we will continue our practice of deciding on the size of auctioned areas on a case-by-case basis, rather than auctioning everything on a nationwide basis. Having a mix of large and small areas is also good for rural America. I hope that these efforts will help rural consumers, but by themselves they are not going to get the job done.

So what is the FCC's plan to bring better service to rural America? First, we eliminate the rule that prohibits cellular carriers from merging. No rule will henceforth prevent carriers from merging even when there are only two competitors in the market and the merger would result in a monopoly for rural consumers. Last year we tentatively concluded that the cellular cross interest rule should remain in place where there are three or fewer competitors in a market. But the majority rejects this tentative conclusion, and eliminates the rule that protects the most vulnerable consumers. Instead we'll rely on unpredictable case-by-case review unguided by any written Commission standards at all. Unfortunately, that's the first part of the FCC's new plan to help rural wireless consumers.

Second, the FCC will maintain the rule that allows companies to meet their build out requirements by serving only urban markets and ignoring rural customers. Rural carriers have asked to improve the situation with a "use-it-or-lose-it" rule, where if a carrier fails to use its rural spectrum it is returned to the Commission after a period of years to be re-auctioned to someone who will use it. Sounds like a reasonable way to meet our obligations to rural America and to ensure that public spectrum is put to its highest and best use. But today the Commission refuses this request. Instead we push off use-it-or-lose-it into another interminable NPRM, and give national carriers the option, but no requirement, to meet existing rules by serving a percentage of rural counties instead of the cities in each market. How many carriers do you think will chose to build out rural areas ahead of lucrative cities without further incentive or rules under this new plan? Not many. Nonetheless, rejecting use-it-or-lose-it is the second part of the FCC's curious plan for rural America.

Third, we allow, for the first time, corporations to mortgage their spectrum licenses, essentially allowing them to use a public asset as collateral when seeking loans. I don't see how we can allow this

without violating the Communications Act and the intent of Congress. The marginal improvement in access to capital will be small, given that companies today can already grant security interests in stock and in the proceeds of a license sale. But allowing security interests could undermine our authority in Sections 301 and 304 of the Act. The FCC's basic ability to develop wireless policy and manage interference could be threatened. If a court is convinced that an FCC decision to require additional CALEA compliance, E-911 public safety actions, or to change operations to reduce interference unduly puts the investment of a security interest holder at risk, could that court tie the Commission's hands? If so, we would be unable to do our job. Finally, after the NextWave disaster, we should be wary of decisions that put us at a disadvantage in bankruptcy disputes. Yet, allowing security interests creates great uncertainty in this context and could lead to the Commission being unable to protect public funds when a licensee declares bankruptcy. While limiting potential interest holders to our friends at the RUS arguably mitigates some policy concerns, it does not change the legal analysis, and it's just a short step from here for the Commission to parlay today's action into one allowing private banks to hold mortgages in public licenses. Despite the risks and the limited benefit, this is the third part of the FCC's new plan for helping rural America.

I think this item steers us in the wrong direction. We can talk the talk about helping rural America all we want. But someday we're going to have to walk the walk and get the job done. Today we trip.

STATEMENT OF
COMMISSIONER JONATHAN S. ADELSTEIN
APPROVING IN PART, DISSENTING IN PART

Re: Facilitating the Provision of Spectrum-Based Services to Rural Areas and Promoting Opportunities for Rural Telephone Companies to Provide Spectrum-Based Services; WT Docket No. 02-381

I believe that wireless solutions are essential for rural America. Since I have been at the FCC, I have heard from wireless ISPs and mobile wireless companies who are doing their best to provide the latest technologies to all Americans, no matter where they live. So I take very seriously their suggestions about how the FCC can push rural wireless deployment. I also am mindful of our obligations to ensure that consumers of wireless services in rural markets are not left behind. Spectrum is the lifeblood of so many of the new wireless services and innovations that can light up the hardest areas to serve.

With that in mind, I believe that our item today makes some good decisions, but also makes a number of bad ones. While I appreciate the attention to this issue, it is certainly not what I would have drafted to promote rural wireless deployment. Its over-reliance on market mechanisms flies in the face of the very market failures too often experienced in rural areas that our policies should be designed to address. It is far from clear that we really are taking the right steps to truly facilitate deployment of wireless services in rural areas.

In some ways, we get it right. I am pleased that for a number of wireless services, we have increased power levels for base stations located in rural areas. I know that this is an important issue for many operators in rural America, and I am very excited about the potential for this change in our rules to improve the reach of mobile wireless services.

I also support our decision to adopt a new "rural safe harbor" for our substantial service requirement. While the substantial service construction requirement may not be a perfect approach to ensuring that spectrum is put to use, I think the rural safe harbor will enable licensees to pursue rural build out strategies with the comfort of knowing what they need to do to satisfy our construction rules.

I am a supporter of secondary markets. But I would have preferred that we more aggressively embraced the complimentary role of market-based mechanisms and re-licensing approaches such as "keep what you use" in this item. I think we passed up here a real opportunity to tackle a number of significant barriers to spectrum access. I do, however, appreciate the item's conclusion that re-licensing and market-based mechanisms aren't necessarily mutually exclusive and that the two approaches can be complimentary in certain circumstances. I also appreciate the cooperation of my colleagues in adopting a Further Notice that continues to explore possible re-licensing approaches and construction obligations for current and future licensees who hold licenses beyond their first term. I think this will be an important dialogue, and I will continue to push for an approach that provides for re-licensing in the event that market-based mechanisms still result in unused spectrum. We cannot afford to let spectrum lay fallow in rural areas. It is not fair to Rural Americans for companies to buy large swaths of spectrum that cover their homes only to ignore them and build out exclusively in urban areas. If they do not plan to use the spectrum they acquired in rural areas, they should let someone else use it to serve rural consumers.

I recognize that there was support by a number of smaller carriers for a Commission determination to adopt RSA/MSAs for all future licensing. However, I believe that the Commission must retain flexibility in addressing license area sizes on a band by band basis. I want to make a personal commitment, though, to doing what I can to make sure we have a balanced approach in licensing that provides for small and

large license areas, just as I did in our recent Advanced Wireless Services proceeding.

I must dissent from two portions of today's item. First, I am perplexed how the majority's decision to eliminate the cellular cross-ownership rule promotes service in rural areas. I was willing to adopt our tentative conclusion from the NPRM to maintain the restriction, but only for RSAs that are served by three or fewer CMRS providers. While I recognize that such an approach may have posed some implementation difficulties, I do not believe those challenges were so insurmountable that they warrant complete elimination of the rule. Moreover, the majority has failed to provide any real compelling reason for eliminating the rule, instead basing the decision on a determination that the rule should be eliminated because we now have adequate resources and procedures in place to allow for case-by case review and somehow the need for flexibility outweighs any concerns about consolidation over cellular spectrum in markets where competitors would go from three to two or two to one. The item completely fails to address some of the concerns raised by previous Commissions that justified the rule in the first place, such as market conditions in rural areas and the fact that cellular carriers may still possess market power in those RSAs. I cannot see how it would ever make sense in rural areas with two wireless providers to let them merge, leaving consumers with only one monopoly choice. But this approach could let that happen.

Second, I also must dissent from the majority's decision to allow licensees to grant security interests in licenses to the Rural Utilities Service (RUS). This is a difficult decision for me, as I have been a strong supporter of RUS and its funding of broadband and wireless services in rural areas. I ultimately concluded, however, that our decision to allow a security interest to RUS, even as part of the Federal Government, raises significant statutory problems that are not outweighed by the real benefits that may arise. While it was the right decision to limit the ability to gain a security interest to a fellow government agency, since spectrum is a public resource, I am nevertheless concerned about the precedent of this decision. I do appreciate the efforts to limit the scope of the decision as greatly as possible.

Deployment of wireless services in Rural America raises a number of challenges. While we haven't entirely succeeded in addressing many of those challenges today, I look forward to the further notice and a full discussion there on what steps we can take to improving access to spectrum in these areas in the future.