uses for which the 29.25-29.5 GHz uplink band is designated. We also seek comment on another alternative of pairing such GSO uplinks with downlinks at 19.3-19.425 and 19.575-19.7 GHz, and designating the entire 19.3-19.7 GHz for NGSO MSS feeder links. We also seek comment on any other issues concerning downlink operations which may affect the workability of the band segmentation plan.

d. Effect of Decisions at WRC-95 on the Band Segmentation Plan

66. The FCC's recommended proposals for the WRC-95 include proposals designed to eliminate a principle regulatory obstacle to NGSO service -- ITU Radio Regulation 2613 -- from applying in Ka-Band uplink and downlink spectrum.[71] The proposals, if adopted at WRC-95, would facilitate the implementation of the band segmentation plan we propose. However, adoption of different provisions at the WRC-95 could affect the ability to implement the plan. Accordingly, we request comment on what, if any, contingency plans may be appropriate at this stage, and on any other information that develops from the WRC-95 Preparatory process that may be relevant to implementation of the proposed plan.

5. Other Allocations in the 28 GHz band

67. We also recognize that the MSS is allocated on a co-primary basis to the FSS in the 29.5 to 30.0 GHz band. Currently there are no MSS systems operating in the band. However, Norris Satellite Communications, which was licensed to provide FSS services in this band in 1992, initiated the proceeding for the MSS allocation in the 29.5-30 GHz band.[72] It does not appear that FSS and MSS systems can share the same frequencies. We do not believe Norris's plans to implement MSS in this band should prevent consideration of other proposed systems from going forward and providing the public with needed services as quickly as possible. We request comment on whether we should eliminate the allocation for MSS at 29.5-30.0 GHz or whether to modify the MSS allocation as a secondary allocation to FSS systems at 29.5 - 30.0 GHz.

6. Supplemental Tentative Decision on CellularVision's Pioneer's Preference Application

68. In the Tentative Decision on CellularVision's request for a pioneer's preference, the Commission found that CellularVision is the innovator of LMDS technology. Accordingly, it tentatively found that CellularVision should be awarded a pioneer's preference. CellularVision's specific pioneer's preference request was for the Los Angeles MSA -- it argued that the service it was providing in New York was substantially different

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[71] *WRC Preparatory Report* at paras. 59-68.

[72] *See* n. 9 *supra*. Norris however has not implemented its system and we will be reviewing its milestone schedule.

from the service for which it requested a pioneer's preference in Los Angeles. The Commission disagreed, however, and determined not to award a pioneer's preference for LMDS in more than one service area. Accordingly, the Commission stated that if a pioneer's preference to CellularVision were to be awarded, that it would "modify the authorization to [CellularVision] to meet the service area, frequency, and other technical rules developed in this proceeding for the area encompassing [CellularVision's] New York PMSA authorization."[73] However, the Commission further stated that if CellularVision were to inform the Commission that it prefers Los Angeles, and if it were to surrender its New York license, the Commission would grant its pioneer's preference for Los Angeles.[74]

69. CellularVision filed comments to the *Tentative Decision* in which it argued that it was entitled to a pioneer's preference in the Los Angeles area without its affiliate Hye Crest being forced to surrender its New York license. Specifically, CellularVision argued that: a) Hye Crest was licensed prior to the adoption of the pioneer's preference rules; b) the proposed 28 GHz service rules are an outgrowth of the work commenced by CellularVision after Hye Crest was authorized and the pioneer's preference rules were adopted; and, c) the service provided by Hye Crest is different than the service for which CellularVision seeks a pioneer's preference.

70. A number of parties supported CellularVision's pioneer's preference arguments in comments and reply comments to the Tentative Decision. However, we note that all of these filings were made prior to the Commission being granted competitive bidding authority by Congress in August 1993.[75] Due to the fact such authority has drastically altered the pioneer's preference rules by requiring payment from pioneers, and due to the unique circumstances discussed below, we find no further need to consider whether CellularVision is entitled to a preference in Los Angeles. Rather, we propose to change our earlier tentative decision, and grant CellularVision a preference for that portion of the New York BTA (or other geographic service area ultimately adopted) which includes the New York PMSA. The pioneer's preference, covering the portion of the BTA lying outside the PMSA, would be for the portion of the 28 GHz band proposed to be available for LMDS in the Commission's band splitting plan, *infra*, *i.e.*, 27.5 - 28.35 GHz and 29.1 - 29.25 GHz (or whatever band plan is ultimately adopted by the Commission). We seek comment on these proposals. We note that if a pioneer's preference is awarded for the remainder of the BTA, Section 309(j)(13)(B) of the Communications Act, requiring an 85 percent payment of the value of the pioneer's preference license, would apply only to the portion of the New York BTA not covered by CellularVision's existing license for the PMSA. We seek comment on this tentative conclusion. We also clarify that the rules governing our evaluation of CellularVision's

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[73] *First NPRM, supra*, at para. 64.

[74] *First NPRM, supra*, 8 FCC Rcd at 566, paras. 63-65.

[75] *See Omnibus Budget Reconciliation Act of 1993*, Pub. L. No. 103-66, Title VI, Section 6002, 107 Stat. 387, enacted August 10, 1993.

pioneer's preference request are those that were in effect when the Tentative Decision was adopted.[76]

71. Since our tentative decision on its pioneer's preference request in the *First NPRM*, CellularVision has begun serving a significant number of customers within its New York license area. Therefore, we do not believe it is in the public interest for us to continue proposing, in the context of a pioneer's preference award, that CellularVision voluntarily discontinue service in New York and turn in its license. Moreover, we believe that CellularVision has made a commitment to providing service in New York, as evidenced by the fact that it has applied for additional cell sites to cover the remainder of the PMSA. We have held that the choice of which geographic area to be awarded as the pioneer's preference license will be the licensee's.[77] CellularVision's circumstances are unique, however, in that the original license was granted before we established an LMDS service category and adopted regulations to govern the service. Further, the license was granted pursuant to waiver, prior to our adoption of the pioneer's preference rules, and for reasons that are consistent with the underlying objectives of those rules.[78] These unique circumstances, in our view, warrant our tentative decision to waive our rules on our own motion to the extent they would afford CellularVision the opportunity to choose the geographic area to be awarded as the pioneer's preference license. We seek comment on this proposed approach. We also note, of course, that CellularVision would have the opportunity (as would any interested party) to participate in any competitive bidding procedures we may establish in this proceeding for purposes of licensing LMDS service in the Los Angeles area.

72. It is our intention to accommodate CellularVision's operations within the New York PMSA to the maximum extent possible, while minimizing adverse effects of its

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[76] When we adopted amendments to our pioneer's preference evaluation criteria in 1994, we explicitly held that they would not apply to proceedings in which tentative decisions had been issued, such as this one, see *In the Matter of Review of the Pioneer's Preference Rules*, First Report and Order, 9 FCC Rcd 605, para. 9 (1994).

[77] *Report and Order*, GEN Docket No. 90-217, 6 FCC Rcd 3488, 3495, paras. 53-54, *recon. denied*, 7 FCC Rcd 1808, 1802, paras. 28-29.

[78] A pioneer's preference was intended to ensure that innovators have an opportunity to participate in new services that they take a lead in developing. In addition, pioneer's preferences were intended to speed the development of new services and improve existing services. *In the Matter of Establishment of Procedures to Provide a Preference to Applicants Proposing an Allocation for New Services*, 6 FCC Rcd 3488 (1991). In *Hye Crest, supra*, the Commission found that granting CellularVision's waiver application was the most efficient and expeditious means for accommodating Section 7 of the Communications Act of 1934, as amended, 47 U.S.C. § 157, which charges the Commission to "encourage the provision of new technologies." Further, the Commission found that public benefits such as increased competition and greater diversity would be realized for the video marketplace, *Hye Crest Management, Inc., supra*, paras. 18, 24, thus speeding the development of new services and improving existing services through competition.

operations in the 28.35 - 28.5 frequency band on eventual GSO licensees. We propose, if we take favorable action on any renewal application CellularVision files pursuant to its existing license (such a filing would be due in January 1996), to include as a condition of the PMSA license a provision permitting CellularVision to operate on the contiguous 1 GHz for which it is presently licensed for a period of time sufficient to accommodate its operations within the New York PMSA without adversely affecting the eventual GSO licensee. We tentatively conclude that a grandfathering period of 36 months following the release date of the First Report and Order in this proceeding, or until the first GSO satellite is successfully launched, whichever occurs later, is appropriate. We seek comment on this tentative conclusion. We tentatively intend to instruct the Wireless Telecommunications Bureau to condition any such renewed license with a provision specifying that, after the end of the grandfathering period we adopt, the CellularVision license would become subject to our generally applicable rules for the provision of LMDS service. Thus, if the proposed band is adopted, at the end of the grandfathering period CellularVision would be required to cease operation on the 150 MHz allocated for GSO/FSS operations 36 months after release of the First Report and Order in this proceeding or until the first GSO satellite is launched, whichever is later . Simultaneously, CellularVision would be permitted to operate on a co-primary basis on the 150 MHz at 29.1-29.25 GHz. We seek comment on this proposal.

73. Finally, we seek comment on whether it would be appropriate to place conditions on any pioneer's preference license issued to CellularVision, similar to those we placed on other pioneer's preference licensees in PCS. Section 1.402(e) of our rules states that

> As a condition of its license grant, a pioneer's preference grantee will be required to construct a system that substantially uses the design and technologies upon which its pioneer's preference award is based within a reasonable time, as determined by the Commission, after receiving its license. Failure to comply with this provision will result in revocation of the pioneer grantee's license, and transfer of the license will be prohibited until this requirement is met.

For the pioneer's preference licenses we have heretofore granted, we placed a condition on the broadband and narrowband PCS licenses that required that they be held for three years or until the construction requirements applicable to the five-year build-out period have been met, whichever is earlier.[79] We request comment on whether we should place similar restrictions on CellularVision in connection with its proposed pioneer's preference license.

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[79] *Third Report and Order*, GEN Docket No. 90-314, 9 FCC Rcd 1337, 1339, para. 9 (1994) (broadband PCS); 9 FCC Rcd 1309, 1319, para. 72 (1994)(narrowband PCS). This condition was, however, subject to waiver if there were an overriding national objective that could be thwarted, *Third Report and Order*, note 11.

IV. LOCAL MULTIPOINT DISTRIBUTION SERVICE

74. The portion of the 28 GHz band dedicated to LMDS will provide 1 GHz of spectrum for fixed microwave services proposed by LMDS developers. Most of that spectrum will be licensed exclusively for LMDS on a primary basis but 150 MHz is proposed to be licensed on a co-primary basis with MSS feeder links. Herein, we propose service rules based on the record developed in this proceeding, as well as rules for auctioning licenses in instances where there are mutually exclusive applications.

A. Spectrum Licensing

75. LMDS developers and/or manufacturers participating in the Negotiated Rulemaking Committee proposed system plans based on 1 gigahertz of spectrum. LMDS equipment developers have designed and built systems operable on 1 gigahertz of spectrum. In *ex parte* meetings with staff, these LMDS parties, such as CellularVision, Texas Instruments, and several Bell Operating Companies, have stated that without 1 gigahertz of spectrum, LMDS service is not economically viable.

76. Two LMDS parties stated that for their purposes, less than 1 gigahertz of spectrum is adequate. The University of Texas-Pan American, which hopes to implement distance learning capability to the economically depressed area of the Rio Grande Valley, has indicated that 600 MHz of spectrum dedicated exclusively for distance learning will meet their projected needs. In addition, Gigahertz Equipment Company, which has not developed a discrete technology for use in the 28 GHz Band, but which was an active participant in the Negotiated Rulemaking Committee, has offered a partial band segmentation proposal which, assuming two licensees per geographic service area, requested 1500 MHz of spectrum for LMDS. We appreciate the wide variety of plans for service being made by potential LMDS service providers. The University of Texas-Pan American is not contemplating direct commercial service, however. Under Gigahertz Equipment Company's proposal, the total spectrum availability for LMDS, and hence the services available, would be greater in the aggregate than the proposal we make herein, however, individual licensees would be more restricted. We request comment from these and other parties on the number and size of licenses which we should make available and on the amount of spectrum each licensee should have, see *infra*, paras. 78-80, and whether our geographic partitioning and spectrum disaggregation proposals will help meet the needs of parties requiring less than 1 GHz.

77. To the extent LMDS systems are used to provide video services, we tentatively conclude that LMDS will be competing in a multichannel video programming distribution (''MVPD'') market, which includes, *inter alia*, cable operators, DBS providers, wireless cable systems, satellite master antenna television systems, and video dialtone systems. We seek comment on that conclusion. As the Commission recognized last year in its Annual Report on the status of competition in this market, ''cable television remains the dominant medium

for providing consumers with multichannel video programming."[80] On the other hand, the Commission observed that competitive entry of alternative distribution technologies in the coming months and years should significantly affect this market.[81]

78. Against this backdrop, we seek comment on whether it is advisable, from a competitive standpoint, to license more than one LMDS operator per market and on any competitive concerns raised by the grant of a 1000 MHz block to a single LMDS licensee in each market. While allowing one LMDS provider per market may help ensure the competitive viability of this fledgling service, and thereby maximize the ability of LMDS licensees to provide significant competition to other services, we recognize that digital LMDS is being developed that has the potential to greatly increase the capacity of LMDS systems. For example, Texas Instruments, whose digital LMDS system is being manufactured for use in other countries, estimates that 16,000 telephony subscribers per LMDS cell (of three miles radius) could be served concurrently with about 200 video-on-demand channels.[82] We seek comment on when digital LMDS technology will be commercially available in this country and the extent to which digital technology will expand the capacity of LMDS systems. We also seek comment on whether the increased capacity associated with digital technology should affect our ultimate decision about the minimum amount of spectrum needed to operate a competitively viable system and the number of LMDS licenses that should be made available in a single market.

79. Possible schemes include issuing only one license per market for the entire 1000 MHz; issuing two licenses, one for the 850 MHz contiguous band of spectrum and one for the 150 MHz co-primary portion; and issuing three licenses, two for 425 MHz and one for the 150 MHz co-primary segment. We seek comment on each of these licensing schemes. If the licensing scheme which we ultimately adopt includes more than one license per market, we seek comment on whether to permit aggregation of licenses within the same geographic service area.

80. Whatever our decision on the final number of LMDS licenses per market, we are aware that continued improvements in technology may eventually make it possible for individual licensees to reduce the amount of spectrum they need for the types of services they propose to provide. Accordingly, we propose to permit spectrum disaggregation of spectrum by LMDS licensees. Commenters favoring disaggregation should address how a licensee would accomplish such disaggregation and what procedural and substantive rules the Commission should promulgate for licensing disaggregated licenses. In addition, we request

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[80] *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming,* First Report, 9 FCC Rcd 7442, para. 201 (1994).

[81] *Id.* at para. 246.

[82] Texas Instruments letter notice of *ex parte* communication, June 6, 1995.

comment on whether designated entity licensees that received bidding credits or permission to make installment payments should be allowed to disaggregate spectrum.

81. Finally, we have noted, *supra*, para. 77, that there may be significant competition facing LMDS service providers from providers of other services. Accordingly, while we do not propose a restriction on the amount of spectrum which may be held by one licensee, we request comment on the advisability of implementing such a restriction on LMDS licensees, and what form that restriction would take.

B. Geographic Service Areas

82. In the *First NPRM*, we proposed to use the Rand McNally Commercial Atlas and Marketing Guide Basic Trading Areas (BTAs), which are areas, defined by counties, in which the residents purchase goods. We also asked for comment on whether other geographic areas should be used. A number of parties commenting on the *First NPRM* suggested that MSA[83] and RSA[84] licensing would be preferable to BTAs.[85] They argued variously that the MSA/RSA definitions are well understood by the Commission and the communications industry, that smaller and medium-sized businesses will have more opportunities to participate if the service areas are smaller than BTAs, that transaction costs are lower for smaller areas, that smaller geographic areas are more conducive to the Commission's proposal to have a short build-out time for LMDS, and that the smaller areas will promote diverse locally-oriented service offerings and expanded rural service options.

83. Other parties commenting on the *First NPRM* supported the use of BTAs,[86] arguing that the larger area would result in economies of scale, foster participation by the most providers, facilitate addressing local government concerns in a cohesive manner, lower the cost of interference coordination among LMDS licensees, and increase the potential for larger capital returns due to the larger customer base.

84. Parties disagreed on whether MSA/RSA or BTA licensing is better for speeding service to rural areas. Parties supporting BTA licensing indicate that, with an urban infrastructure, the marginal cost to supply LMDS to the rural portion of a BTA would be

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[83] Metropolitan Statistical Area, as defined by the Census Bureau.

[84] Rural Service Areas, as defined in 60 RR 2d at 1035, FCC 86-302, July 18, 1986. MSAs and RSAs are generally much smaller than BTAs.

[85] *See*, for example, *Comments* of United States Telephone Association, BellSouth, GTE Service Corporation, M3 Illinois Telecommunications Corporation, NYNEX, and Sprint Corporation.

[86] *See*, for example, *Comments* of Suite 12 Group, Bell Atlantic, Ameritech, Cellular Television Associates, and RSW Communications, Ltd.

much less than if that were the only service area.[87] Others argued that larger areas would necessarily result in delayed service, and that the speediest service would be provided by licensing smaller areas.

85. One party, UTC, argued that the Commission should use local access and transport areas (LATAs), for administrative convenience, and to match more closely customers' perception of their communities of interest. UTC stated that the growing perception of regionalism is evident by the increasing number of requests to state public utility commissions by LECs to increase their service areas to more closely correspond with customers' perceptions of their interest areas.

86. We have not proposed the larger MTA licensing area because few parties commenting on the *First NPRM* believed that areas larger than BTAs would be appropriate for licensing. For this reason, we also are not proposing Basic Economic Areas (BEAs), which are smaller than MTAs but larger than BTAs. Finally, we believe using MSA/RSAs are inappropriate for LMDS because RSAs tend not to have significant commercial centers. We request comment on these conclusions.

87. We continue to believe that BTAs are the best geographic area for licensing LMDS.[88] We believe that, based on the record submitted thus far in this proceeding, there is a reasonable likelihood that services provided through use of the LMDS spectrum will have a local focus. BTA service areas, we tentatively conclude, will best approximate the likely scope of the service areas for these services.

88. In the *1995 Commercial Atlas and Marketing Guide*, published by Rand McNally, there are 487 Basic Trading Areas listed, which include the 50 States. We propose to use these BTAs, except for the New York BTA. We note that we have already granted a license in the New York PMSA to CellularVision, pursuant to a waiver. Therefore, instead of issuing a license for the New York BTA we propose to issue a license for the geographic area encompassed by the New York BTA minus the New York PMSA. As explained above, if we take favorable action on a CellularVision license renewal application for the New York PMSA, we have proposed to condition the renewed license to ensure that it conforms to our final band plan. In addition, we propose to add individually as additional areas for licensing,

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[87] Suite 12 *Reply Comments* to the *First NPRM*.

[88] Rand McNally is the copyright owner of the MTA/BTA Listings, which list the BTAs contained in each MTA and the counties within each BTA, as embodied in Rand McNally's Trading Area System MTA/BTA Diskette, and geographically represented in the map contained in Rand McNally's Commercial Atlas & Marketing Guide. The conditional use of Rand McNally's copyrighted material by interested persons is authorized under a blanket license agreement dated February 10, 1994, and covers use by LMDS applicants. This agreement requires authorized users of the material to include a legend on reproductions (as specified in the license agreement) indicating Rand McNally's ownership.

the United States territories and possessions over which the FCC has jurisdiction: the Virgin Islands, American Samoa, Guam, Puerto Rico, and the Commonwealth of Northern Marinas.

89. We have undertaken an examination of geographic partitioning in other proceedings, and we wish to consider that issue in this proceeding as well. As used herein, geographic partitioning is the assignment by the licensee of its license in a portion of its service area. We propose that partitioning would be treated as any other assignment situation: the parties would be required to file an application containing the appropriate information for a licensing decision, and the Commission would, upon review, either grant or deny the application.[89] In the case of broadband PCS licenses, for example, we decided to permit geographic partitioning only for rural telephone companies for purposes of expediting the provision of service in rural areas.[90] Geographic partitioning is a method for the original licensee to recoup some of its initial licensing and construction costs, while providing a method for entities with specific local concerns or insufficient capital to purchase rights on the entire service area to acquire a portion of the geographic area originally licensed. At the same time, the public, particularly in rural areas, is served sooner than it might otherwise have been if all build-out in a particular geographic area is the responsibility of one licensee.

90. Some aspects of LMDS distinguish it from most PCS services. Construction costs for LMDS may be greater than for PCS; LMDS is not as far developed as is PCS as a service or in equipment capabilities; the higher frequency band in which LMDS operates makes a much shorter transmission path; and the fixed nature of the proposed services limits LMDS customers to those residing within the reach of cell hub transmitters. For these reasons, we tentatively conclude that geographic partitioning for any part of the license area may be appropriate for LMDS licensees.

91. Accordingly, we seek comment on whether the most rapid build-out of LMDS would occur if we permit partitioning of the license pursuant to eligibility and other rules adopted for this service. We seek comment regarding whether geographic partitioning should be established in the case of LMDS licenses, and on the manner in which our proposed build-out requirement would be applied to a partitioned license.

C. LMDS Services and Regulation

92. In the *First NPRM*, we proposed to allow licensees to determine what services they want to offer. We further suggested in the *First NPRM* that parties be able to choose

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[89] *See, e.g.,* 47 U.S.C. § 22.947(b).

[90] *See* Implementation of Section 309(j) of he Communications Act -- Competitive Bidding, PP Docket No. 93-253, Fifth Report and Order, -- FCC Rcd --- (1994) (*Auctions Fifth Report and Order*), *reconsideration*, Implementation of Section 309(j) of he Communications Act -- Competitive Bidding, PP Docket No. 93-253, Fifth Memorandum Opinion and Order, -- FCC Rcd --- (1994) (*Auctions Fifth Memorandum Opinion and Order*).

whether they wanted to offer common carrier or private carrier services on a channel-by-channel, cell-by-cell basis.[91] Many commenters encouraged the Commission to keep as much flexibility as possible for licensees to determine what category of services they would like to offer. Many also suggested that the Commission should ensure that licensees were operating in a manner consistent with their claimed regulatory status. Telephone companies in particular argued that there should be parity with regard to regulatory status of telecommunications services providers. Several parties pointed out that private carriers are barred from offering local exchange service. However, TDS proposed that the Commission have a presumption of common carrier status for LMDS licensees, and make a determination of private carrier status on a case-by-case basis.

93. Based on the system and service descriptions received in the record during this proceeding, especially the Negotiated Rulemaking proceeding, we can predict more accurately than before the *First NPRM* the types of services likely to be offered in this band. Current proposals for LMDS include video distribution, broadband video telecommunications, and two-way data and voice subscriber-based services. We note that LMDS, when used for video distribution, would not generally be regulated as a cable system under Title VI of the Communications Act, except in certain limited circumstances.[92] For example, the Commission has held where wires are used to connect buildings that are not under common ownership, control or management the facility will be deemed a "cable system" for purposes of the Act.[93]

94. We request comment on three alternatives for regulating LMDS licensees. One option is that licensees would be presumed to be common carriers subject to Title II regulation to the extent the system is used to provide two-way data, voice, and other telecommunications services, and in the absence of evidence demonstrating that they provide only private carriage. In support of this option, we would find that the core Title II provisions, prohibiting unreasonable discrimination, and unjust and unreasonable rates, and imposing an obligation to serve on reasonable request, serve the public interest by promoting broad availability of services at reasonable and non-discriminatory rates. Under this option, licensees interested in applying for consideration as a private carrier would be required to file a motion with the Commission, setting forth the justification for such treatment. Private wireless service providers would be subject to statutory requirements pertaining to private wireless services, and common carrier providers would be regulated under Title II common carrier rules. We seek comment on the extent to which an LMDS licensee should be subject to Title II regulation, assuming we were to adopt this option, in circumstances where its system is used to distribute video programming. Commenters should address whether the

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[91] *First NPRM*, 8 FCC Rcd at 561.

[92] *In the Matter of Definition of Cable Television System, aff'd sub nom., FCC v. Beach Communications, Inc.*, __ U.S. __, 113 S.Ct 2096 (1993)

[93] *Id.*, 5 FCC Rcd at 7640, paras. 14-15.

capacity or technical characteristics of a video distribution system or the extent to which capacity is made available to unaffiliated programmers impact whether an LMDS licensee should be considered a common carrier.

95. The second option we will consider is the same one set forth in the *First NPRM*.[94] In their applications, successful bidders would specify the types of services they expect to offer and indicate the regulatory status under which those services would be offered. Licensees would be required to describe their proposed service in sufficient detail for the Commission to confirm that their requested status complies with relevant judicial and/or statutory standards. The Commission would retain oversight of the parties' compliance with the statutory and judicial standards for status based on the type of service offered. *See, e.g., National Association of Regulatory Utility Commissioners v. FCC*, 525 F.2d 630 (D.C. Cir.) *cert. denied* 425 US 999 (1976)(NARUC I).

96. The third option we will consider for LMDS licensees is to treat them similarly to the way in which MMDS licensees are treated. MMDS licensees are permitted to provide service as common carriers or private carriers. Under the MMDS rules, however, licensees operating as private carriers must comply with common carriage rules, except for the tariffing requirement. At least to the extent that licensees provide video distribution services, this option would permit LMDS licensees, although presumptively common carriers, to file a notification of intent to operate as a private carrier.

D. Eligibility

97. In the first NPRM, we proposed not to adopt restrictions on the ownership of LMDS licenses. We requested comments on interpretation of the Cable Act with regard to the participation of telephone companies and cable companies in LMDS. In this Notice, we seek additional comment on these issues.

1. Telephone Companies

98. In comments to the *First NPRM*, parties disagreed on whether the Commission should permit local exchange carriers (LECs) to be LMDS licensees. Parties in favor of allowing telephone company participation said, *inter alia*, that telephone companies should be given the opportunity to integrate LMDS into their operations; that LECs do not possess any monopoly power with regard to LMDS and that they would have no bottleneck market power through provision of LMDS; that current statutes and regulations do not bar LEC participation; that LECs have resources, expertise and public service commitment that would

[94] 8 FCC Rcd 557, 561, paras. 25-26.

benefit LMDS; and that imposing restrictions would be "overreaching" by the Commission.[95]

99. Those opposed to permitting LEC participation said that LECs would misuse their resources and market power to preempt competition in both video and telecommunications services; and that the Cable Act bars LECs from being licensed to provide LMDS.[96]

100. Currently, there are no statutory or regulatory restrictions that prohibit a local exchange carrier from holding an interest in a wireless cable operator or LMDS licensee that does not otherwise meet the statutory definition of a cable system. The statutory cable-telephone cross-ownership restriction, prohibiting LEC provision of "video programming" to subscribers within its service area, has been construed to apply *only* to a LEC's provision of video programming through a wired cable system.[97] In a 1990 order, the Commission determined that the structure of the statute and its legislative history indicated that Congress intended only to prohibit a LEC's distribution of video programming over a cable system, and that the term "cable system," as used in the 1984 Cable Act, encompassed only "video delivery systems that employ cable, wire or other physically closed or shielded transmission paths." The Commission held that typically, wireless cable systems did not constitute such a system within the meaning of the Act.[98] The Commission's decision that the cable-telco ban does not extend to a telephone company's acquisition of wireless cable facilities was recently upheld by the Court of Appeals for the D.C. Circuit.[99] Thus, to the extent that telephone companies acquiring LMDS spectrum use that spectrum to provide video programming to subscribers within a BTA, they would not be subject to the telco-cable cross-ownership ban. We seek comment on this conclusion.

101. We also seek further comment on competitive issues associated with acquisition of a BTA service area by telecommunications providers operating in the same area, assuming that spectrum in the 28 GHz band may be used to provide telephone service. For example, does the potential control by a LEC of 1000 MHz of spectrum in its service area raise competitive concerns? To what extent can this spectrum be used to provide service that is

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[95] *See*, for example, *Comments* of GTE Service Corporation, Sprint Corporation, Telephone and Data Systems, Inc., U S WEST, Leaco Rural Telephone Cooperative, and (filing jointly) Rock Hill Telephone Company, Fort Mill Telephone Company, and Lancaster Telephone Company.

[96] *See*, for example, *Comments* of Cellular Television Associates, Inc. , Coalition for Wireless Cable, M3 Illinois Telecommunications Corporation, and Wireless Cable Association International, Inc.

[97] *In the Matter of Definition of a Cable Television System, Report & Order*, 5 FCC Rcd 7638 (1990).

[98] *Id.*

[99] *American Scholastic TV Programming Foundation v. FCC*, No. 93-1652 (D.C. Cir. Feb. 10, 1995).

competitive with local telephone service, particularly the provision of access services to residential and business subscribers? Would allowing a LEC to acquire LMDS licenses in its service area eliminate a potential and important new source of competition in the local exchange market? Given the LECs' current monopoly status with regard to the provision of local exchange service, would LECs be likely to acquire LMDS spectrum as a means of forestalling competitive entry into the local exchange market, for example, by warehousing spectrum or diverting it to less optimal uses? Would our proposed buildout requirements discussed in paras. 113-116, *infra*, address this concern? How should any elimination of this potential source of competition to LECs be addressed by the Commission? In particular, should the Commission limit LMDS spectrum that can be acquired by a LEC in its service areas? In addition, given announced LEC plans to offer video service to their telephone subscribers over their wired plant, we seek comment on any competitive issues raised by the acquisition of LMDS spectrum.

2. Commercial Mobile Radio Service Providers

102. We also seek comment on whether we should limit the extent to which an existing Commercial Mobile Radio Service (CMRS) provider can acquire LMDS spectrum in its service area. We tentatively conclude, based on the record in this proceeding, that using current technology, LMDS spectrum cannot be used to provide mobile radio services. Acquisition of LMDS spectrum by a CMRS provider would not affect horizontal concentration or otherwise raise competitive concerns even in a broadly-defined market including all CMRS services. For similar reasons, we see no need to include the acquisition of LMDS spectrum in the Commission's CMRS spectrum caps, which place limits on the amount of spectrum that can be controlled by a carrier in any particular market.[100] We seek comment on these conclusions.

3. Cable Television Companies

103. Parties commenting in response to the *First NPRM* disagreed on whether cable television companies should be permitted to participate in LMDS. Some argue that to permit cable television companies to acquire a potentially powerful competitor would deter

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[100] *See Amendment of the Commission's Rules to Establish New Personal Communications Services*, Memorandum Opinion & Order, 9 FCC Rcd 4957, 4983-86 (1994) ("*PCS MO&O*"); *Amendment of the Commission's Rules to Establish New Personal Communications Services*, Second Report & Order, 8 FCC Rcd 7700, 7728; *Implementation of Sections 3(n) and 332 of the Communications Act - Regulatory Treatment of Mobile Services; Amendment of Part 90 of the Commission's Rules to Facilitate Future Development of Specialized Mobile Radio Systems in the 800 MHz Frequency Band; Amendment of Parts 2 and 90 of the Commission's Rules to Provide for the Use of 200 Channels Outside the Designated Filing Areas in the 896-901 MHz and 935-940 MHz Band Allotted to the Specialized Mobile Radio Pool*, Third Report & Order, 9 FCC Rcd 7988, 8109-10, para. 263.

competition in video services.[101] Others argue that the Cable Act prohibits licensing cable companies in wireless cable services.[102] Parties in favor of permitting cable companies to obtain LMDS licenses argue that a cross-ownership ban unfairly would foreclose cable operators from participation in LMDS in areas much larger than their cable franchises; and that the Cable Act prohibits cable television companies from owning licenses in the Multichannel Multipoint Distribution Service (MMDS), but not in any other wireless cable service, such as LMDS.[103]

104. We tentatively agree with those commenters who observe that there are presently no statutory or regulatory restrictions that prohibit a cable operator from holding an interest in an LMDS licensee. While Section 613 of the Communications Act does prohibit a cable operator from holding an MMDS license in any portion of the franchise area served by that cable operator's cable system, the language of that provision is limited, on its face, to MMDS.[104] On the other hand, we note that some of the same policy reasons that might justify imposition of a cable-LMDS cross ownership ban formed the basis for Congress' imposition of the cable-MMDS ban.[105] We seek comment on our tentative conclusion regarding the scope of the cable-MMDS ban.

105. As we recognized above, however, cable operators continue to dominate the market for multichannel video distribution, and LMDS represents an important new source of competition in that market. Accordingly, we continue to have concerns about cable operator acquisition of this spectrum within the LMDS geographic service area encompassing its cable franchise region, and seek additional comment on whether cable operators should be

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[101] *See*, for example, comments of Cellular Television Associates, Coalition for Wireless Cable, M3 Illinois Telecommunications Corporation, and the Wireless Cable Association International, Inc.

[102] *See Comments* of GTE Service Corporation and Sprint Corporation.

[103] *See Comments* of Cole, Raywid and Braverman, and (filing jointly) Comcast Corporation, Jones Intercable, Inc., and Cablevision Industries Corporation.

[104] This conclusion is further supported by the fact that in addition to the cable-MMDS cross-ownership ban enacted as part of the 1992 Cable Act, the Senate Bill, S.12, contained a cable-DBS cross-ownership ban, as well. The cable-DBS cross-ownership ban, however, was deleted at Conference "in view of the fact that there [were] no DBS systems operating in the United Sates at {that] time" and adoption of limitations would therefore be "premature." *See* H.R. No. 102-862, 102d Cong., 2d. Sess., 82 (1992). The Commission granted Cellularvision's predecessor a license to provide LMDS service in January 1991. As is the case with DBS, had Congress intended to bring LMDS within the purview of a cable cross ownership ban, it could have enacted specific language to do so.

[105] *See* S. Rep. No. 102-92, 102d Cong., 1st Sess. 47 (1991)(existing cross-ownership rules "enhance competition" and purpose of proposed cable-MMDS rule is to "prevent cable from warehousing its potential competition").

prohibited from acquiring LMDS licensees for BTAs that cover a cable operator's franchise area. For example, would cable operators acquiring LMDS licenses have the incentive and ability to inhibit the full deployment of LMDS facilities that compete with their wired cable facilities, for example, by warehousing spectrum or diverting it to less optimal uses? Or, given that a cable operator's franchise areas might be significantly smaller than LMDS BTA service areas, would prohibiting a cable operator from holding an LMDS license that covers a larger region than its franchise area be justified? In addition, we request comment on whether we should adopt rules similar to our cellular-PCS cross-ownership rules to address the ownership of LMDS licenses by cable operators.[106]

106. We also note, on the other hand, that cable operators are emerging as a potentially significant source of competition to LECs in the provision of local telephone services. We seek comment on whether LMDS spectrum might be an important adjunct to cable operator facilities that can be used in the provision of local telephone services in competition with LECs. Under those circumstances, while prohibiting cable operators from acquiring LMDS licenses might increase competition in the MVPD market, would it also impede competitive entry into local telephony? Would our proposed buildout requirements address this concern? We seek comment on how to balance these competing public interest concerns, and on whether and to what extent cable operators should be permitted to acquire LMDS licenses.

4. Multichannel Multipoint Distribution Service Licensees

107. We also seek comment on whether MMDS licensees should be prohibited from acquiring an LMDS license within their service areas. Our recent order establishing MMDS licensees in BTAs and making other changes to the MMDS processing rules are intended to enable these licensees to compete successfully against cable operators. Like cable operators, however, MMDS licensees may find the two-way capacity of LMDS services appropriate for the provision of local telephone services in competition with LECs. Thus, we are reluctant to propose that MMDS licensees be barred from LMDS. However, we request comment on this issue and on the advisability of permitting one licensee to hold two licenses for a significant amount of scarce spectrum in the same service area. In particular, we request parties' comments on whether antitrust issues would be raised by the same entity holding both types of licenses capable of providing wireless cable competition.

5. Transfer of Control and Assignment of Licenses

108. In the *First NPRM* in this docket, before the Commission obtained the authority to utilize competitive bidding procedures in the case of mutually exclusive applications, we proposed that transfer or assignment of LMDS licenses would not be permitted until the LMDS system had been constructed and was serving the public. Our

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[106] *See* 47 C.F.R. § 24.204.

reason for this proposal was to dissuade insincere applicants. However, unlike a lottery system, the auction process discourages insincere applicants. Thus, since we are proposing the use of competitive bidding to award LMDS licenses,[107] we withdraw our proposal to limit transfer or assignment of LMDS licenses, except in the case of licenses awarded to designated entities. Because of the special consideration accorded designated entities in the auction process, we propose that such licenses be restricted in a manner similar to that proposed for Specialized Mobile Radio licenses.[108] A designated entity would be prohibited from voluntarily assigning or transferring control of its license to any other entity during the three years after license grant. In the fourth and fifth years of the license term, the designated entity would only be able to assign or transfer control of its license to another qualified designated entity, and no unjust enrichment could be gained through the transfer. We request comment on this proposal.

E. Regulation of Common Carriers/Preemption

109. Although we proposed in the *First NPRM* to forbear from regulating rates of LMDS licensees if regulated as common carriers, subsequent judicial interpretation of the Communications Act forecloses this approach to the extent that LMDS providers operate as common carriers. *AT&T v. FCC*, 978 F.2d 727 (D.C. Cir. 19), *Southwestern Bell Corp. v. FCC*, 43 F.3d 1515 (D.C. Cir. 1995)[109] Accordingly, we believe that, to the extent LMDS licensees offer services which are categorized as common carrier offerings that are not within the definition of Commercial Mobile Radio Services (CMRS), we have no alternative but to impose all statutory requirements pertaining to common carriers. In the case of filings required under Section 214 of the Act, we seek comment regarding whether we should consider the development of streamlined filing provisions in the case of LMDS service providers.

110. In the *First NPRM*, we tentatively concluded that state entry and rate regulation should be preempted for LMDS licensees providing video distribution service on a private carrier basis. We requested comment on whether state regulation of LMDS licensees offering other types of service as private carriers, such as private telecommunications or data services, should also be preempted.

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[107] *See* paras. 132-133, *infra*.

[108] *In the Matter of Amendment of Parts 2 and 90 of the Commission Rules to Provide for the Use of 200 Channels. . .* , PR Docket No. 89-553, Second Report and Order and Second Further Notice of Proposed Rulemaking, 3 FCC Rcd. --- (1995), FCC 95-159, (released April 17, 1995) paras. 141-143 (*900 MHz Second Report and Order*).

[109] The Court found that the Commission is mandated by statute to require all telephone common carriers, regardless of size or market power, to file "schedules showing all charges."

111. With regard to common carriers, we tentatively found in the *First NPRM* that any video distribution service would be inherently interstate in nature, and hence potentially subject to preemption. We noted that for telecommunications services, we have jurisdiction over interstate portions of those services, and over mixed intrastate and interstate services to the extent that "intrastate services are not severable from the interstate services, and the state regulations thwart or impede federal law and policies." 8 FCC Rcd at 562. We found that the record did not support a determination of whether interstate and intrastate services could be severed, nor whether any particular state regulatory policies would thwart or impede the Commission's efforts to establish the new service.

112. We reiterate our conclusion that we cannot make a determination at this time that preemption of state regulation of common carrier aspects of LMDS is appropriate. However, with regard to private carriage video distribution service, we retain our tentative proposal of the *First NPRM*. With regard to all other preemption issues, we propose to defer such issues for future consideration as they arise on a case by case basis. We request comment on this proposal.

F. Construction Requirements

113. In the *First NPRM*, we proposed that LMDS licensees be required to cover 90 percent of their licensed geographic service area within three years. The majority of parties opposed this requirement. They argued, *inter alia*, that this "aggressive" build-out requirement would be impossible to meet because of the time required for the equipment manufacturing process, that at the time there was only one manufacturer of LMDS equipment, and that diversity of technological choices will require more development time. Parties also argued that the size of the proposed geographic service area would make coverage of extensive geographic areas within the short amount of time proposed more difficult.

114. It appears, from the record, that the only potential delays in bringing LMDS services to the public are due to the need to produce the necessary equipment. While some companies have completed much of their research and development processes, it may take time to produce the amount of hub and subscriber equipment needed for LMDS to meet the construction requirement we proposed.

115. It is our intention to foster the most diversity in services and technology possible in provision of LMDS. We are persuaded by parties' arguments that strict build-out requirements may hamper this development by driving licensees to the few existing manufacturers and not allowing room for additional technological development. At the same time, we believe that it may be necessary to ensure that rural areas receive the benefits of LMDS services.

116. The auction procedure may make the need for build-out requirements less necessary. We are aware that equipment prices would be driven up, possibly to an

uneconomic level, if we were to require too rapid a build-out. At the same time, the value of the LMDS spectrum might be adversely affected if applicants faced an uneconomic buildout.

117. Accordingly, we tentatively conclude that some build-out requirement is necessary for LMDS, but one which is more moderate than was proposed in our *First NPRM*. We propose to require licensees to have made service available to a minimum of one-third of the population of their geographic areas within five years from license grant. We propose that licensees will have made service available to a minimum of two-thirds of the population of their geographic areas within ten years from license grant. We request comment on these proposals.

G. Technical rules proposal

118. In the *First NPRM*, we noted our belief that only limited technical regulations may be needed to ensure adequate interference control and coordination of services at the boundaries of adjacent service areas within each block of spectrum. Thus, we requested specific proposals for power, modulation requirements, channelization, bandwidth, emission characteristics, frequency stability, antenna characteristics, *e.g.*, gain, beamwidth, height and polarization, and spectrum utilization. Commenters requested that we not establish standards for modulation requirements, channelization and bandwidth. They believe imposition of standards for these parameters would hamper the development of LMDS for system designs that are still evolving. Evidence of this was displayed during the Negotiated Rulemaking Committee meetings. During efforts to determine the interference levels between LMDS and satellite systems, LMDS proponents presented a variety of system designs and indicated that other formats are being considered. We tentatively conclude that we need only adopt standards that will facilitate coordination between geographically adjacent LMDS systems and between LMDS and MSS feeder link facilities where they share spectrum. We seek comment on the technical proposals herein.

1. Frequency Coordination

119. Under our proposed regulatory scheme, each licensee will have control over its own facilities within its designated service area and therefore be responsible for minimum service performance and interference levels within its system. We recognize, however, that each licensee may need to coordinate its operation with other entities licensed to provide service in geographically adjacent service areas to avoid interference situations. In other services authorized under Part 21, applicants are required to coordinate frequencies with licensees and other applicants whose facilities are likely to be impacted by the new proposals. This process has proven to be extremely beneficial to the common carrier point-to-point microwave industry and the Commission. Given the success of the process in these other cases, it appears that a similar process would benefit LMDS.

120. As one option, we propose to require that applicants coordinate frequencies among themselves at their service areas boundaries.[110] We believe that this process will be highly efficient, provide LMDS operators sufficient system engineering flexibility, and result in fewer interference problems. Alternatively, we could set a maximum power flux density (PFD) level at the service area boundaries. In establishing this limit, we would also include a provision permitting parties to exceed this level should they come to an agreement with geographically adjacent licensees. Through this process parties could resolve interference problems without the Commission's involvement, thereby enabling the introduction of services more expeditiously. We request comment on a reasonable PFD in the event that we decide to adopt this alternative.

121. Another measure that might advance the coordination process would be a requirement that LMDS operators employ only orthogonally-polarized signals. Such signals are achievable by using vertical and horizontal polarized antennas. Depending upon the antenna configurations, adjacent LMDS systems configured to use opposite polarized signals can realize cross-polarization isolation levels of at least 20 dB.[111] If operators were permitted to employ other types of polarizations, *e.g.*, circular, the level of isolation would be significantly less or nil. Theoretically, the isolation between a circular polarized signal and an orthogonal one is 3 dB, although this becomes even less when the signals are depolarized. In the event LMDS and satellite systems are ultimately able to co-frequency share this band, this proposal to limit LMDS to the use of orthogonal polarization, we believe, may be one of the mitigating factors that facilitate co-frequency sharing between LMDS and satellite systems. We request comment on this conclusion. Moreover, in our view, permitting operators to employ other types of polarization would impose some geographical separation requirements on LMDS systems, potentially reducing the size of LMDS service areas and the number of customers who could be served. Our goal is to adopt rules that will maximize LMDS service. Therefore, we request comment on restricting LMDS signal polarizations to vertical and horizontal at the border of each service area.

2. Equivalent Isotropically Radiated Power (EIRP)

122. We note that during the Negotiated Rulemaking Committee, proponents of LMDS described their system characteristics for use in analyzing interference between LMDS and satellite systems. This data revealed differences in LMDS proponents' strategies and system designs, including power levels. For the 28 GHz band, our current rules limit the maximum EIRP to -18 dBW/Hz based on a bandwidth of 20 MHz.[112] Although this amount

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[110] 47 C.F.R. §21.100(d).

[111] "Frequency Reuse in the Cellular LMDS," Suite 12 Group, filed January 6, 1994.

[112] The 28 GHz band is presently designated, terrestrially, for fixed point-to-point microwave use and this power limit reflects this type of radio system. For the LMDS point-to-point intercell connecting links that will operate in the 27.5 - 28.35 GHz band, we do not propose to reduce the

of power should increase path reliability, none of the system designs on record contemplates a level of this magnitude. The maximum proposed by any LMDS proponent is -52 dBW/Hz. Perhaps this is an indication that -18 dBW/Hz far exceed the power requirements of LMDS systems and therefore should be reduced to a more reasonable level. LMDS system designs are still evolving, but we recognize that two of the three known designs require power levels substantially less than -52 dBW/Hz. Imposing an EIRP limit more in line with today's designs should reduce the probability of intersystem interference, cause future systems to be more homogenous with today's technology, and improve the chances of future co-frequency sharing agreements which LMDS and satellite licensees in the 27.5 GHz - 28.35 GHz band may choose to undertake.[113]

123. Therefore, in conjunction with our proposal to require LMDS licensees to coordinate frequencies, we also propose to set the maximum EIRP for LMDS at -52 dBW/Hz for systems that will operate in the 27.5 GHz - 28.35 GHz band. For those systems designed to operate in the LMDS allocation at 29.1 GHz - 29.25 GHz the proposed hub limits are specified in proposed rules §§21.1020 and 21.1021 contained in Appendix 1. These levels are based on the analyses conducted in the NRMC, that demonstrated interference between LMDS systems and MSS feeder links is less likely if LMDS systems maintain an output power within those limits. Based on the present record in this proceeding, we believe these limits provide LMDS systems operators sufficient flexibility and adequate power to meet their needs. No limit is proposed for maximum transmitter output power. This is consistent with our proposal in WT Docket No. 94-148, wherein we proposed to eliminate the limitation on maximum transmitter power and to express power limits in terms of EIRP. In addition, we propose to adopt a 0.001% frequency tolerance for LMDS equipment. We believe that this frequency stability will maximize the use of this spectrum, is within the current state-of-the-art, and can be achieved without significant costs. We request comment on these proposals.

3. Spectral Efficiency

124. Even though we propose to adopt a flexible policy that would allow system designers to subdivide assigned spectrum in a manner that is best for accommodating their service requirements, we seek comment regarding whether there is a need for a measure of modulation spectral efficiency. Currently, the rules require digital modulated systems to comply with a spectral efficiency of 1.0 bps/hz. This standard was adopted many years ago

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power level below that of other fixed point-to-point links. Any such links designed to operate in the 29.1 GHz - 29.25 GHz band will be required to comply with the terms of the sharing agreement discussed in paras. 60-63, *infra*.

[113] Our proposal for power output of consumer equipment is less than what is currently permitted for equipment in this band. *See* ANSI/IEEE C95.1-1992, *Safety Levels with Respect to Human Exposure to Radiofrequency Electromagnetic Fields, 3 KHz - 300 GHz*, approved Sept. 26, 1991, published Apr. 27, 1992, by IEEE; *see also Guidelines for Evaluating Environmental Effects of Radiofrequency Radiation*, ET Docket No. 93-62.

and represented the state-of-the-art at that time. Over the years advanced modulation techniques have been developed and will continue to do so. In light of these developments, we seek comment regarding whether meeting this standard would present any problems to equipment manufacturers. We are aware that the measure represents only one aspect of spectral efficiency of a system. However, our experiences with systems operating in other bands show that it is a reasonable measure and is not an administrative burden. Recognizing that methods of measuring system performance and efficiency standards have advanced along with system designs, we seek comment on whether there is a better gauge of spectral efficiency that would not pose enforcement problems for the Commission. In particular, we request comment on whether the efficiency standards we adopted for Private Land Mobile Radio Services refarming efforts would be appropriate here.[114]

V. SATELLITE SERVICES

125. Given the wide variety of services Ka-band satellites will provide, we seek to license systems as expeditiously as possible. We also seek to encourage multiple entry, as has been our policy in other satellite services.[115]

126. We have existing rules for the GSO/FSS systems in place in Part 25 of the Commission's rules.[116] These include technical rules, such as 2° orbital spacing and full frequency reuse, and licensee qualification rules, for example, a rigorous financial qualification standard. We propose to apply these rules to GSO/FSS systems that will use the 27.5- 30.0 GHz band. We request comment on this. We also request comment on whether specific rules, such as the financial qualification requirement, should be altered and whether any additional rules should be created. We request specific comment on any technical standards that will facilitate sharing under our band segmentation plan.

127. We also request comment on what sort of rules should be created for the NGSO/FSS systems. For example, what sort of financial qualifications should we adopt for these systems? Should spectrum efficiency or service availability standards be adopted? We request specific comment on any technical standards that should be adopted for NGSO/FSS systems that will facilitate sharing under our band segmentation plan.

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[114] *In the Matter of Replacement of Part 90 by Part 88 to Revise the Private Land Mobile Radio Services and Modify the Policies Governing Them.* Report and Order and Further Notice of Proposed Rulemaking, PR Docket No. 92-235, -- FCC Rcd. --, FCC 95-255, released June 23, 1995, para. 97.

[115] *See, e.g., Radiodetermination Satellite Service,* 104 FCC 2d 650 (1986); *Amendment of the Commission's Rules to Establish Rules and Policies Pertaining to a Mobile Satellite Service in the 1610-1626.5/2483.5-2500 MHz Frequency Bands,* Report and Order, CC Docket No. 92-166, FCC 94-261, released Oct. 14, 1994.

[116] *See* 47 C.F.R. §§ 25.114, 25.140, and 25.210.

128. Satellite Licensing Procedures. Following the release of this Notice, we will place the pending satellite applications on separate Public Notice, and will establish cut-off periods for both the GSO/FSS and NGSO/FSS applications to be considered concurrently with these.[117] If all qualified applicants in the processing group cannot be accommodated, we propose to use competitive bidding as the procedure to choose among the mutually exclusive applications to provide domestic service within the United States.[118] We are not auctioning access rights to other countries from either NGSO/FSS or GSO/FSS systems. We are also auctioning access rights to serve the U.S. market only from certain orbit locations for specific frequency bands. We briefly discuss proposals for auctions for GSO/FSS and NGSO/FSS systems. By doing so, we will be in a position to implement an auction as quickly as possible, should we be faced with a mutually exclusive situation, and to ensure that service to the public is not delayed.

VI. COMPETITIVE BIDDING PROCEDURES

A. Competitive Bidding

129. Section 309(j)(1) of the Communications Act, as amended, 47 U.S.C. § 309(j)(1), permits auctions only where mutually exclusive applications for initial licenses or construction permits are accepted for filing by the Commission and where the principal use of the spectrum will involve or is reasonably likely to involve the receipt by the licensee of compensation from subscribers in return for enabling those subscribers to receive or transmit communications signals. [119]

130. The Commission has previously determined that auctions are permissible if at least a majority of the use of the spectrum would be for service to subscribers. In making this determination, we looked to classes of licenses and permits rather than to individual licenses.[120] Based on the service proposals in the extensive record developed in this

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[117] All applicants would have to pay the filing fees set out in our rules, for applications for authority to construct launch and operate a satellite in the FSS.

[118] In general, the Commission considers two or more applications to be "mutually exclusive" if their conflicts are such that the grant of one application would effectively preclude, by reason of harmful electrical interference, the grant of one or more of the other applications. See 47 C.F.R. §25.155(a).

[119] As discussed *infra*, the LMDS services proposed to date all appear to be subscriber-based services. However, we are aware that interest in the use of this spectrum has been demonstrated by two entities interested in manufacturing point-to-point equipment (Digital Corporation and Harris Corp. - Farinon Div.) which is unlikely to be subscriber-based.

[120] *Second Report and Order*, *supra*, n. 79 at 2354.

proceeding to date, we believe that the principal use of the LMDS spectrum will meet these requirements.

131. With respect to the NGSO and GSO FSS applicants, we tentatively conclude that the principal use of the spectrum will be to provide subscription based services,[121] even though certain portions of the spectrum will be used for large bandwidth applications through gateway terminals. We request comment on these tentative conclusions, including information from any potential LMDS or satellite applicants on the type of service they contemplate offering.

132. In addition, we tentatively conclude that the use of competitive bidding to award LMDS and satellite licenses will promote the objectives described in Section 309(j)(3) of the Communications Act. These objectives are:

(A) the development and rapid deployment of new technologies, products, and services for the benefit of the public, including those residing in rural areas, without administrative or judicial delays;

(B) promoting economic opportunity and competition and ensuring that new and innovative technologies are readily accessible to the American people by avoiding excessive concentration of licenses and by disseminating licenses among a wide variety of applicants, including small businesses, rural telephone companies, and businesses owned by members of minority groups and women;

(C) recovery for the public of a portion of the value of the public spectrum made available for commercial use and avoidance of unjust enrichment through the methods employed to award uses of that resource; and

(D) efficient and intensive use of the electromagnetic spectrum.

133. First, based on our experience conducting PCS auctions, we believe that the use of competitive bidding to award GSO/FSS and NGSO/FSS and LMDS licenses, as compared with other licensing methods, will speed the development and deployment of new technologies, products and services to the public with minimal administrative or judicial delay, and will encourage efficient use of the spectrum as required by Sections 309(j)(3)(A) and (D). Second, use of auctions to assign LMDS and satellite licenses will clearly advance the goals of Section 309(j)(3)(C) by enabling us to recover for the public a portion of the value of the public spectrum.[122] By using a licensing methodology which ensures that licenses are

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[121] *See* First Report and Order and Second Notice of Proposed Rulemaking in ET Docket No. 94-32, FCC 95-47, 60 Fed. Reg. 13102 (March 10, 1995) at 33.

[122] *Id.*

assigned to those who value them most highly, it follows that such licensees can be expected to make the most efficient and intensive use of the spectrum. Finally, we believe that using auctions will meet the objectives of Section 309(j)(3)(B) because we propose to adopt competitive bidding rules that foster economic opportunity and the distribution of licenses among a wide variety of applicants including small businesses, rural telephone companies and businesses owned by women and minorities (collectively referred to as "designated entities") who might otherwise face entry barriers.

B. Determining Mutual Exclusivity

134. As noted above, one of the prerequisites for use of the auction procedures is that applications must be mutually exclusive. The Communications Act states that "[n]othing in [Section 309(j)], or in the use of competitive bidding, shall . . . be construed to relieve the Commission of the obligation in the public interest to continue to use engineering solutions, negotiation, threshold qualifications, service regulations, and other means in order to avoid mutual exclusivity in application and licensing proceedings. . . ." 47 U.S.C. § 309(j)(6)(E). With respect to LMDS, we propose to use discrete geographic service areas and spectrum blocks, thus avoiding the possibility of "daisy chain" mutual exclusivity among applications. However, because of the great interest shown in LMDS in this proceeding to date, we anticipate that there will be multiple applications filed for each geographic area. Moreover, we tentatively conclude that it would not serve the public interest for the Commission to avoid mutual exclusivity altogether because doing so would greatly circumscribe the geographic service areas and would defeat the Commission's ability to determine the applicants who would put the spectrum to its highest valued use.

135. We propose to determine mutual exclusivity based on the FCC Form 175 application for LMDS licenses. If more than one application is filed for the same LMDS frequency in the same geographic area then mutual exclusivity would be established and the license will be auctioned. As we indicated in the *Second Report and Order*, if the Commission receives only one application that is acceptable for filing for a particular license, and thus there is no mutual exclusivity, the Commission by Public Notice will cancel the auction for this license and establish a date for the filing of a long-form application, the acceptance of which will trigger the procedures permitting petitions to deny.[123] We seek comment on this proposal, particularly whether some other type of filing method would be more appropriate for determining whether initial applications are mutually exclusive.

136. With respect to GSO/FSS service and NGSO/FSS systems, it is premature to determine whether mutual exclusivity will occur. We intend to open a new filing period permitting additional parties to apply for this spectrum. If additional entities file applications during this filing period, it is possible, given the limited amount of spectrum available, that we may not be able to accommodate all of the applicants' proposals. Under these

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[123] *See Second Report and Order* at para. 165.

circumstances the Commission proposes to award these licenses by auction. We seek comment on this proposal.

C. Competitive Bidding Issues

1. Competitive Bidding Design

(a) General Competitive Bidding Principles

137. The *Competitive Bidding Second Report and Order*,[124] as modified by the *Competitive Bidding Reconsideration Order*,[125] established the criteria to be used in selecting which auction design method to use for each particular auctionable service. Generally, we concluded that awarding licenses to those parties who value them most highly will foster the statutory policy objectives. In this regard, we noted that since a bidder's ability to introduce valuable new services and to deploy them quickly, intensively, and efficiently increases the value of a license to that bidder, an auction design that awards licenses to those bidders with the highest willingness to pay tends to promote the development and rapid deployment of new services and the efficient and intensive use of the spectrum.[126]

138. Based on the foregoing, we concluded that where the licenses to be auctioned are interdependent and their value is expected to be high, simultaneous multiple round auctions would best achieve the Commission's goals for competitive bidding.[127] We also noted, however, that simultaneous multiple round auctions may not be appropriate for all licenses. For example, where there is less interdependence among licenses, there is less benefit to auctioning them simultaneously. Similarly, we explained that when the values of particular licenses to be auctioned are low relative to the costs of conducting a simultaneous multiple round auction, we may consider auction designs that are relatively simple, with low administrative costs and minimal costs to the auction participants.[128]

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[124] *Implementation of Section 309(j) of the Communications Act - Competitive Bidding,* Second Report and Order, PP Docket No. 93-253, 9 FCC Rcd 2348, para. 69 (1994)(Competitive Bidding Second Report and Order).

[125] Competitive Bidding Reconsideration Order, 9 FCC Rcd at 7249 - 50.

[126] See *Competitive Bidding Second Report and Order*, 9 FCC Rcd at 2360-61, para. 70.

[127] *See* 9 FCC Rcd at 2367, paras. 109-111

[128] *See id.* at 2367, paras. 112-113.