

APPENDIX B

FINAL REGULATORY FLEXIBILITY ANALYSIS

(For Report and Order)

25. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),⁸²⁰ an 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 the *Notice of Proposed Rule Making (NPRM)* was incorporated therein. The Commission sought written public comment on the proposals in the *NPRM*, including comment on the IRFA. No comments were submitted specifically in response to the IRFA; we nonetheless discuss certain general comments below. This present Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.⁸²¹

Need for, and Objectives of, the Proposed Rules:

26. In this *Report and Order (R&O)* we adopt a number of changes concerning the rules governing the 2500-2690 MHz band, for the Multipoint Distribution Service (MDS), the Multi-channel Multipoint Distribution Service (MMDS), and the Instructional Television Fixed Service (ITFS). The rules we adopt today include: revising technical rules to increase licensee flexibility; revising the band plan to eliminate the current interleaved channel scheme to provide licensees with contiguous spectrum; implementing service rules for mobile operation; retaining eligibility restrictions to preserve the ITFS service; simplifying and streamlining the licensing process; and implementing application filing and processing electronically via our Universal Licensing System with a six-month transition period after application processing in ULS begins before requiring mandatory electronic filing.

27. We believe the rules we adopt today will both encourage the enhancement of existing services using this band and promote the development of new innovative services to the public, such as providing wireless broadband services, including high-speed Internet access and mobile services. We also believe that our new rules will allow licensees to adapt quickly to changing market conditions and the marketplace, rather than to government regulation, in determining how this band can best be used.

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

28. No comments were submitted specifically in response to the IRFA.

Description and Estimate of the Number of Small Entities to Which the Proposed Rules Will Apply:

29. 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.⁸²² The RFA generally defines

⁸²⁰ 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).

⁸²¹ See 5 U.S.C. § 604.

⁸²² 5 U.S.C. § 603(b)(3).

the term "small entity" as having the same meaning as the terms, "small business," "small organization," and "small governmental jurisdiction."⁸²³ In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.⁸²⁴ A small business concern is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.⁸²⁵ A small organization is generally "any not-for-profit enterprise which is independently owned and operated and is not dominant in its field."⁸²⁶

30. In this section, we further describe and estimate the number of small entity licensees and regulatees that may be affected by rules adopted pursuant to this *NPRM*. The most reliable source of information regarding the total numbers of certain common carrier and related providers nationwide, as well as the number of commercial wireless entities, appears to be the data that the Commission publishes in its *Trends in Telephone Service* report.⁸²⁷

31. Multipoint Distribution Service, Multichannel Multipoint Distribution Service, and ITFS. Multichannel Multipoint Distribution Service (MMDS) systems, often referred to as "wireless cable," transmit video programming to subscribers using the microwave frequencies of the Multipoint Distribution Service (MDS) and Instructional Television Fixed Service (ITFS).⁸²⁸ In connection with the 1996 MDS auction, the Commission established a small business size standard as an entity that had annual average gross revenues of less than \$40 million in the previous three calendar years.⁸²⁹ The MDS auctions resulted in 67 successful bidders obtaining licensing opportunities for 493 Basic Trading Areas (BTAs). Of the 67 auction winners, 61 met the definition of a small business. MDS also includes licensees of stations authorized prior to the auction. At this time, we estimate that of the 61 small business MDS auction winners, 48 remain small business licensees. In addition to the 48 small businesses that hold BTA authorizations, there are approximately 392 incumbent MDS licensees that are considered small entities.⁸³⁰ After adding the number of small business auction licensees to the number

⁸²³ 5 U.S.C. § 601(6).

⁸²⁴ 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." 5 U.S.C. § 601(3).

⁸²⁴ 15 U.S.C. § 632.

⁸²⁵ 15 U.S.C. § 632.

⁸²⁶ 5 U.S.C. § 601(4).

⁸²⁷ FCC, Wireline Competition Bureau, Industry Analysis and Technology Division, *Trends in Telephone Service*, Table 5.3 (May 2002) (*Trends in Telephone Service*).

⁸²⁸ Amendment of Parts 21 and 74 of the Commission's Rules with Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service and Implementation of Section 309(j) of the Communications Act – Competitive Bidding, MM Docket No. 94-131 and PP Docket No. 93-253, *Report and Order*, 10 FCC Rcd 9589, 9593 ¶ 7 (1995) (*MDS Auction R&O*).

⁸²⁹ 47 C.F.R. § 21.961(b)(1).

⁸³⁰ 47 U.S.C. § 309(j). (Hundreds of stations were licensed to incumbent MDS licensees prior to implementation of Section 309(j) of the Communications Act of 1934, 47 U.S.C. § 309(j). For these pre-auction licenses, the applicable standard is SBA's small business size standard for "other telecommunications" (annual receipts of \$11 million or less)). See 13 C.F.R. 121.201, NAICS code 513220.

of incumbent licensees not already counted, we find that there are currently approximately 440 MDS licensees that are defined as small businesses under either the SBA or the Commission's rules. Some of those 440 small business licensees may be affected by the decisions in this *R&O*.

32. In addition, the SBA has developed a small business size standard for Cable and Other Program Distribution, which includes all such companies generating \$12.5 million or less in annual receipts.⁸³¹ 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.⁸³² 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. Consequently, we estimate that the majority of providers in this service category are small businesses that may be affected by the rules and policies adopted herein. This SBA small business size standard is also applicable to ITFS. There are presently 2,032 ITFS licensees. All but 100 of these licenses are held by educational institutions. Educational institutions are included in this analysis as small entities.⁸³³ Thus, we estimate that at least 1,932 licensees are small businesses.

33. MDS is also heavily encumbered with licensees of stations authorized prior to the auction. The SBA has developed a definition of small entities for pay television services that includes all such companies generating \$11 million or less in annual receipts.⁸³⁴ This definition includes multipoint distribution systems, and thus applies to MDS licensees and wireless cable operators that did not participate in the MDS auction. Information available to us indicates that there are [832] of these licensees and operators that do not generate revenue in excess of \$11 million annually. Therefore, for purposes of this IRFA, we find there are approximately [892] small MDS providers as defined by the SBA and the Commission's auction rules, and some of these providers may take advantage of our amended rules to provide two-way MDS.

34. There are presently [2032] ITFS licensees. All but [100] of these licenses are held by educational institutions (these [100] fall in the MDS category, above). Educational institutions may be included in the definition of a small entity.⁸³⁵ ITFS is a non-profit non-broadcast service that, depending on SBA categorization, has, as small entities, entities generating either \$10.5 million or less, or \$11.0 million or less, in annual receipts.⁸³⁶ However, we do not collect, nor are we aware of other collections of, annual revenue data for ITFS licensees. Thus, we find that up to [1932] of these educational institutions are small entities that may take advantage of our amended rules to provide additional flexibility to ITFS.

Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements:

⁸³¹ 13 C.F.R. § 121.201, NAICS code 513220 (changed to 517510 in October 2002).

⁸³² U.S. Census Bureau, 1997 Economic Census, Subject Series: Information, "Establishment and Firm Size (Including Legal Form of Organization)", Table 4, NAICS code 513220 (issued October 2000).

⁸³³ In addition, the term "small entity" within SBREFA applies to small organizations (nonprofits) and to small governmental jurisdictions (cities, counties, towns, townships, villages, school districts, and special districts with populations of less than 50,000). 5 U.S.C. §§ 601(4)-(6). We do not collect annual revenue data on ITFS licensees.

⁸³⁴ 13 C.F.R. § 121.201.

⁸³⁵ See 5 U.S.C. §§ 601 (3)-(5).

⁸³⁶ See 13 C.F.R. § 121.210 (SIC 4833, 4841, and 4899).

35. Applicants for MDS or ITFS licenses must submit license applications through the Universal Licensing System using FCC Form 601,⁸³⁷ and other appropriate forms.⁸³⁸ Licensees will also be required to apply for an individual station license by filing FCC Form 601 for those individual stations that (1) require submission of an Environmental Assessment of the facilities under Section 1.1307 of our Rules;⁸³⁹ (2) require international coordination of the application;⁸⁴⁰ or (3) require coordination with the Frequency Assignment Subcommittee (FAS) of the Interdepartment Radio Advisory Committee (IRAC). While these requirements are new with respect to potential licensees in the ITFS and MDS bands, the Commission has applied these requirements to licensees in other bands. Moreover, the Commission is also eliminating many burdensome filing requirements that have previously been applied to MDS and ITFS.⁸⁴¹

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

36. 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: “(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 such 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.”⁸⁴²

37. Regarding our decision to retain ITFS eligibility restrictions, we realize that certain entities expressed their wishes that eligibility restrictions be lifted throughout the entire ITFS spectrum. However, this concern is mitigated by the fact that even though only qualifying educational institutions can hold licenses in the band, such institutions are free to lease out excess capacity to non-educational entities. Throughout the years, this has been the dominant practice in the band, and in fact, the band is used by non-educational entities. Our decision is also mitigated by the fact that non-educational entities may also acquire this spectrum by entering into negotiations with BRS licensees, who occupy the same spectrum.

38. Herein we have adopted a variation of the band plan recommended by the Wireless Communications Association (WCA), National Instructional Television Fixed Service (NIA) and Catholic Television Network (CTN) (collectively, the Coalition). Our preferred variation contains upper and lower band segments for low-power operations (UBS and LBS, respectively), and a mid band segment (MBS) for high-power operations. We do not anticipate that this variation will have any adverse effect on small entities. This is because the new band plan provides contiguous blocks of spectrum whereas the old band plan provided interleaved channels that prevented licensees from employing innovative technologies. Although some entities rejected the three segment plan we have adopted and

⁸³⁷ 47 C.F.R. § 1.913(a)(1).

⁸³⁸ 47 C.F.R. § 1.2107.

⁸³⁹ 47 C.F.R. § 1.1307.

⁸⁴⁰ See e.g., 47 C.F.R. § 1.928 (regarding frequency coordination arrangements between the U.S. and Canada).

⁸⁴¹ See section IV.D, *supra*.

⁸⁴² See 5 U.S.C. § 603(c).

argued that the Commission should adopt across-the-board power reductions instead of the three band segments which require a shuffling of channel assignments, we believe this alternative would have had a significant negative impact on ITFS and MDS licensees. This is because many of these licensees use this spectrum for high-power operations, and an across-the-board power reduction rule would result in the virtual shut down of such licensees' operations. In contrast, the approach we have adopted will accommodate both high and low-power operations.

39. Regarding our decision to adopt, with some modifications, the Coalition's plan for transitioning licensees to the new band plan, we recognize that some commenters were resistant to the Coalition transition plan criticizing it for having no deadlines and arguing that it would create daisy chains that would actually prevent the transition from being completed.⁸⁴³ However, we believe this concern is mitigated by our decision to set a three year deadline for initiating the transition process. We have also notified interested parties herein that if they do not comply with the three year deadline, we will implement another transition plan, and have sought comment on other transition plans we can implement if we later find that the one we adopt today is not successful. With regard to the possible daisy chain problem, we have modified the Coalition plan to transition to the new band plan using larger areas than the Coalition recommends.

40. Finally, licensees that must transition to the new band plan will be affected in that some will have to bear the costs of such transition. However, the record reflects that licensees unanimously agree that the band plan must be modified, and the transition costs are outweighed by the value and utility of converting the band plan into one which provides licensees with contiguous spectrum.

41. Regarding our decision to implement geographic area licensing for all licensees in the band, we do not anticipate any adverse effect on small entities. Instead, our approach here should benefit all licensees, including small entities, as it reduces the burdens associated with filing applications for new sites.

42. Regarding our decision to provide licensees with the flexibility to employ the technologies of their choice in the band, we do not anticipate any adverse effect on small entities. To the contrary, this decision will allow licensees to quickly adjust to changes in technology and market demand without seeking Commission approval.

43. Regarding our decision to refrain from allowing high-power unlicensed operations in the 2500-2690 MHz band, we recognize that some small businesses would have liked to deploy unlicensed operations in the band. However, we believe this concern is outweighed by the fact that allowing such operations would cause interference to primary operations in the band, thereby creating uncertainty for licensees and discouraging investment in the band. Furthermore, we note that Part 15 of the Commission's Rules provides other opportunities for unlicensed operations in the electromagnetic spectrum. We note specifically that the Commission has initiated another rulemaking that specifically deals with unlicensed operations that may ultimately provide more opportunities for unlicensed use.

44. The regulatory burdens contained in the *R&O*, such as filing applications on appropriate forms and filing transition plans with the Commission, are necessary in order to ensure that the public receives the benefits of innovative new services, or enhanced existing services, in a prompt and efficient manner. Nonetheless, we have reduced burdens wherever possible by eliminating a number of

⁸⁴³ See discussion at para. 70, *supra*.

unnecessary regulations concerning filing requirements.⁸⁴⁴

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

45. None.

Report to Congress:

The Commission will send a copy of this *R&O*, including this FRFA, in a report to be sent to Congress pursuant to the Congressional Review Act.⁸⁴⁵ In addition, the Commission will send a copy of this *R&O*, including this FRFA, to the Chief Counsel for Advocacy of the Small Business Administration. A copy of this *R&O* and FRFA (or summaries thereof) will also be published in the *Federal Register*.⁸⁴⁶

⁸⁴⁴ See section IV.D, *supra*.

⁸⁴⁵ See generally, 5 U.S.C. § 801 (a)(1)(A).

⁸⁴⁶ See 5 U.S.C. § 604(b).

APPENDIX C
FINAL RULES

For the reasons discussed in the preamble, the Federal Communications Commission amends 47 CFR Parts 1, 2, 11, 15, 21, 27, 73, 74, 76, 78, 79, and 101 as follows:

PART 1 – PRACTICE AND PROCEDURE

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

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

2. Section 1.65 is amended by revising paragraph (b) to read as follows:

§ 1.65 Substantial and significant changes in information furnished by applicants to the Commission.

* * * * *

b) Applications in broadcast services subject to competitive bidding will be subject to the provisions of §§ 1.2105(b), 73.5002 and 73.3522 regarding the modification of their applications.

* * * * *

3. Section 1.815 is amended by deleting and reserving paragraph (c)(1).

4. Section 1.933 is amended by adding paragraphs (c)(8) and (c)(9) to read as follows:

§ 1.933 Public notices.

* * * * *

(c) * * *
(8) Broadband Radio Service; and
(9) Educational Broadband Service.

* * * * *

5. Section 1.1102 is amended by revising paragraph (20) to read as follows:

§ 1.1102 Schedule of charges for applications and other filings in the wireless telecommunication services.

* * * * *

20. Broadband Radio Service

Action	FCC Form No.	Fee amount	Payment type code	Address
a. New Station	601 & 159	220.00	CJM	Federal Communications Commission, Wireless Bureau Applications, P.O. Box 358155, Pittsburgh, PA 15251-5155.
b. Major Modification of License	601 & 159	220.00	CJM	Federal Communications Commission, Wireless Bureau Applications, P.O. Box 358994, Pittsburgh, PA 15251-5155.
c. Certification of Commission, Completion of Construction	601 & 159	80.00	CJM	Federal Communications Wireless Bureau Applications, P.O. Box 358155, Pittsburgh, PA 15251-5155.
d. License Renewal	601 & 159	220.00	CJM	Federal Communications Commission, Wireless Bureau Applications, P.O. Box 358155, Pittsburgh, PA 15251-5155.
e. Assignment or Transfer:				
(i) First Station on Application	603 & 159	80.00	CCM	Federal Communications Commission Wireless Bureau Applications, P.O. Box 358155, Pittsburgh, PA 15251-5155.
(ii) Each Additional Station	603 & 159	50.00	CAM	Federal Communications Commission, Wireless Bureau Applications, P.O. Box 358155, Pittsburgh, PA 15251-5155.
f. Extension of Construction Authorization	601 & 159	185.00	CHM	Federal Communications Commission, Wireless Bureau Applications, P.O. Box 358155, Pittsburgh, PA 15251-5155.
g. Special Temporary Authority or Request for Waiver of Prior Construction Authorization	Corres & 159	100.00	CEM	Federal Communications Commission, Wireless Bureau Applications, P.O. Box 358155, Pittsburgh, PA 15251-5155.

6. Section 1.1152 is amended by revising numbered item (8) to read as follows:

§ 1.1152 Schedule of annual regulatory fees and filing locations for wireless radio services.

* * * * *

8. Broadband Radio Service (BRS)..... \$265 FCC, BRS, P.O. Box 358835, Pittsburgh, PA, 15251-5835.

* * * * *

7. Section 1.1307 is amended by revising Table 1 as follows:

§ 1.1307 Actions that may have a significant environmental effect, for which Environmental Assessments (EAs) must be prepared.

* * * * *

Table 1.--Transmitters, Facilities and Operations Subject to Routine Environmental Evaluation

Service (title 47 CFR rule part)	Evaluation required if
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Broadband Radio Service and Educational Broadband Service

(subpart M of part 27) Non-building-mounted antennas: height above ground level to lowest point of antenna < 10 m and power > 1640 W EIRP.

Building-mounted antennas: power > 1640 W EIRP.

BRS and EBS licensees are required to attach a label to subscriber transceiver or transverter antennas that:

- (1) provides adequate notice regarding potential radiofrequency safety hazards, e.g., information regarding the safe minimum separation distance required between users and transceiver antennas;

and

- (2) references the applicable FCC-adopted limits for radiofrequency exposure

specified in § 1.1310.

Wireless Communications Service

- (Part 27) (1) For the 1390-1392 MHz, 1392-1395 MHz, 1432-1435 MHz 1670-1675 MHz and 2385-2390 MHz bands:
 Non-building-mounted antennas: height above ground level to lowest point of antenna <10m and total power of all channels > 2000 W ERP (3280 W EIRP).
 Building-mounted antennas: total power of all channels >2000 W ERP (3280 W EIRP).
 (2) For the 746-764 MHz, 776-794 MHz, 2305-2320 MHz, and 2345-2360 MHz bands.
 Total power of all channels >1000 W ERP (1640 W EIRP).

* * * * *

8. Section 1.7001 is amended by revising paragraph (b) to read as follows:

§ 1.7001 Scope and content of filed reports.

* * * * *

(b) All commercial and government-controlled entities, including but not limited to common carriers and their affiliates (as defined in 47 U.S.C. 153(1)), cable television companies, Broadband Radio Service (BRS) "wireless cable" carriers, other fixed wireless providers, terrestrial and satellite mobile wireless providers, utilities and others, which are facilities-based providers and are providing at least 250 full or one-way broadband lines or wireless channels in a given state, or provide full or one-way broadband service to at least 250 end-user consumers in a given state, shall file with the Commission a completed FCC Form 477, in accordance with the Commission's rules and the instructions to the FCC Form 477, for each state in which they exceed this threshold.

* * * * *

9. Section 1.9005 is amended by redesignating paragraphs (h) through (bb) as paragraphs (j) through (dd) and adding new paragraphs (h) and (i) to read as follows:

§ 1.9005 Included services.

* * * * *

- (h) The Broadband Radio Service (part 27 of this chapter);
 (i) The Educational Broadband Service (part 27 of this chapter);

* * * * *

10. Section 1.9020 is amended by revising paragraph (d)(2)(i) to read as follows:

§ 1.9020 Spectrum manager leasing arrangements.

* * * * *

(d) * * *

(2)(i) The spectrum lessee must meet the same eligibility and qualification requirements that are applicable to the licensee under its license qualification, except that spectrum lessees entering into spectrum leasing arrangements involving licensees in the Educational Broadband Service (*see* § 27.1201) are not required to comply with the eligibility requirements pertaining to such licensees (*see* § 27.1201) so long as the spectrum lessees meet the other eligibility and qualification requirements applicable to Part 27 services (*see* § 27.12).

* * * * *

11. Section 1.9030 is amended by revising paragraph (d)(2)(i) to read as follows:

§ 1.9030 Long-term de facto transfer leasing arrangements.

* * * * *

(d) * * *

(2)(i) The spectrum lessee must meet the same eligibility and qualification requirements that are applicable to the licensee under its license qualification, except that spectrum lessees entering into spectrum leasing arrangements involving licensees in the Educational Broadband Service (*see* § 27.1201) are not required to comply with the eligibility requirements pertaining to such licensees (*see* § 27.1201) so long as the spectrum lessees meet the other eligibility and qualification requirements applicable to Part 27 services (*see* § 27.12).

* * * * *

12. A new Section 1.9047 is added to read as follows:

§ 1.9047 Special provisions relating to spectrum leasing arrangements involving Educational Broadband Service spectrum

Licensees in the Educational Broadcasting Service may enter into spectrum leasing arrangements with spectrum lessees only insofar as such arrangements comply with the applicable requirements for spectrum leasing arrangements involving spectrum in that service as set forth in Section 27.1214 of this chapter.

PART 2 – FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS; GENERAL RULES AND REGULATIONS

13. The authority citation for part 2 continues to read as follows:

AUTHORITY: 47 U.S.C. 154, 302a, 303, and 336, unless otherwise noted.

14. Section 2.106, the Table of Frequency Allocations, is amended by revising pages 51, 52, 53, and footnote NG147 to read as follows.

§ 2.106 Table of Frequency Allocations.

* * * * *

International Table			United States Table		FCC Rule Part(s)
Region 1	Region 2	Region 3	Federal Government	Non-Federal Government	
See previous page for 2300-2450 MHz			2345-2360 Fixed Mobile US339 Radiolocation G2 G120 US327	2345-2360 FIXED MOBILE US339 RADIOLOCATION BROADCASTING- SATELLITE 5.396 US327	Wireless Communications (27) Aviation (87)
			2360-2385 MOBILE US276 RADIOLOCATION G2 G120 Fixed	2360-2385 MOBILE US276	Aviation (87)
			2385-2390 US363	2385-2390 FIXED MOBILE NG174 US363	Wireless Communications (27)
			2390-2400 G122	2390-2400 AMATEUR	Amateur (97)
			2400-2402 5.150 G123 2402-2417	2400-2417 AMATEUR	ISM Equipment (18) Amateur (97)
			5.150 G122	5.150 5.282	
			2417-2450 Radiolocation G2 5.150 G124	2417-2450 Amateur 5.150 5.282	
2450-2483.5 FIXED MOBILE Radiolocation	2450-2483.5 FIXED MOBILE RADIOLOCATION		2450-2483.5	2450-2483.5 FIXED MOBILE Radiolocation	ISM Equipment (18) Auxiliary Broadcasting (74) Private Land Mobile (90) Fixed Microwave (101)
5.150 5.397	5.150 5.394		5.150 US41	5.150 US41	

<p>2483.5-2500 FIXED MOBILE MOBILE-SATELLITE (space-to-Earth) 5.351A Radiolocation</p> <p>5.150 5.371 5.397 5.398 5.399 5.400 5.402</p>	<p>2483.5-2500 FIXED MOBILE MOBILE-SATELLITE (space-to-Earth) 5.351A RADIOLOCATION RADIODETERMINATION- SATELLITE (space-to- Earth) 5.398</p> <p>5.150 5.402</p>	<p>2483.5-2500 FIXED MOBILE MOBILE-SATELLITE (space-to-Earth) 5.351A RADIOLOCATION Radiodetermination-satellite (space-to-Earth) 5.398</p> <p>5.150 5.400 5.402</p>	<p>2483.5-2500 MOBILE-SATELLITE (space-to-Earth) US319 US380 US391 RADIODETERMINATION- SATELLITE (space-to- Earth) 5.398</p> <p>5.150 5.402 US41</p>	<p>2483.5-2495 MOBILE-SATELLITE (space-to-Earth) US319 US380 RADIODETERMINATION- SATELLITE (space-to- Earth) 5.398</p> <p>5.150 5.402 US41 NG147</p> <p>2495-2500 FIXED MOBILE except aeronautical mobile MOBILE-SATELLITE (space-to-Earth) US319 US380 RADIODETERMINATION- SATELLITE (space-to- Earth) 5.398</p> <p>5.150 5.402 US41 US391 NG147</p>	<p>ISM Equipment (18) Satellite Communications (25)</p> <p>ISM Equipment (18) Satellite Communications (25) Wireless Communications (27)</p>
<p>2500-2520 FIXED 5.409 5.410 5.411 MOBILE except aeronautical mobile 5.384A MOBILE-SATELLITE (space- to-Earth) 5.403 5.351A</p> <p>5.405 5.407 5.412 5.414</p>	<p>2500-2520 FIXED 5.409 5.411 FIXED-SATELLITE (space-to-Earth) 5.415 MOBILE except aeronautical mobile 5.384A MOBILE-SATELLITE (space-to-Earth) 5.403 5.351A</p> <p>5.404 5.407 5.414 5.415A</p>		<p>2500-2655</p>	<p>2500-2655 FIXED US205 MOBILE except aeronautical mobile</p>	<p>Wireless Communications (27)</p>
<p>2520-2655 FIXED 5.409 5.410 5.411 MOBILE except aeronautical mobile 5.384A BROADCASTING- SATELLITE 5.413 5.416</p>	<p>2520-2655 FIXED 5.409 5.411 FIXED-SATELLITE (space-to-Earth) 5.415 MOBILE except aeronautical mobile 5.384A BROADCASTING- SATELLITE 5.413 5.416</p>	<p>2520-2535 FIXED 5.409 5.411 FIXED-SATELLITE (space-to-Earth) 5.415 MOBILE except aeronautical mobile 5.384A BROADCASTING- SATELLITE 5.413 5.416</p> <p>5.403 5.415A</p>			

<p>5.339 5.403 5.405 5.412 5.418 5.418B 5.418C</p>	<p>5.339 5.403 5.418B 5.418C</p>	<p>2535-2655 FIXED 5.409 5.411 MOBILE except aeronautical mobile 5.384A BROADCASTING- SATELLITE 5.413 5.416 5.339 5.418 5.418A 5.418B 5.418C</p>	<p>5.339 US205</p>	<p>5.339</p>
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2655-3700 MHz (UHF/SHF)

International Table			United States Table		FCC Rule Part(s)
Region 1	Region 2	Region 3	Federal Government	Non-Federal Government	
2655-2670 FIXED 5.409 5.410 5.411 MOBILE except aeronautical mobile 5.384A BROADCASTING SATELLITE 5.413 5.416 Earth exploration-satellite (passive) Radio astronomy Space research (passive)	2655-2670 FIXED 5.409 5.411 FIXED-SATELLITE (Earth-to-space) (space-to-Earth) 5.415 MOBILE except aeronautical mobile 5.384A BROADCASTING- SATELLITE 5.413 5.416 Earth exploration-satellite (passive) Radio astronomy Space research (passive)	2655-2670 FIXED 5.409 5.411 FIXED-SATELLITE (Earth-to-space) 5.415 MOBILE except aeronautical mobile 5.384A BROADCASTING- SATELLITE 5.413 5.416 Earth exploration-satellite (passive) Radio astronomy Space research (passive)	2655-2690 Earth exploration-satellite (passive) Radio astronomy US269 Space research (passive)	2655-2690 FIXED US205 MOBILE except aeronautical mobile Earth exploration-satellite (passive) Radio astronomy Space research (passive)	Wireless Communications (27)
5.149 5.412 5.420	5.149 5.420	5.149 5.420			
2670-2690 FIXED 5.409 5.410 5.411 MOBILE except aeronautical mobile 5.384A MOBILE-SATELLITE (Earth-to-space) Earth exploration-satellite (passive) Radio astronomy Space research (passive)	2670-2690 FIXED 5.409 5.411 FIXED-SATELLITE (Earth-to-space) (space-to-Earth) 5.415 MOBILE except aeronautical mobile 5.384A MOBILE-SATELLITE (Earth-to-space) Earth exploration-satellite (passive) Radio astronomy Space research (passive)	2670-2690 FIXED 5.409 5.411 FIXED-SATELLITE (Earth-to-space) 5.415 MOBILE except aeronautical mobile 5.384A MOBILE-SATELLITE (Earth-to-space) Earth exploration-satellite (passive) Radio astronomy Space research (passive)			
5.149 5.419 5.420	5.149 5.419 5.420	5.149 5.419 5.420 5.420A	US205	US269	
2690-2700 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive)			2690-2700 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY US74 SPACE RESEARCH (passive)		
5.340 5.421 5.422			US246		

2700-2900 AERONAUTICAL RADIONAVIGATION 5.337 Radiolocation	2700-2900 AERONAUTICAL RADIO- NAVIGATION 5.337 METEOROLOGICAL AIDS Radiolocation G2	2700-2900	
5.423 5.424	5.423 US18 G15	5.423 US18	

* * * * *

NG147 Stations in the broadcast auxiliary service and private radio services licensed as of July 25, 1985, or on a subsequent date following as a result of submitting an application for license on or before July 25, 1985, may continue to operate on a primary basis with the mobile-satellite service and the radiodetermination satellite service.

* * * * *

PART 11--EMERGENCY ALERT SYSTEM (EAS)

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

AUTHORITY: 47 U.S.C. 151, 154(i) and (o), 303(r), 544(g), and 606, unless otherwise noted.

16. Section 11.11 is amended by revising paragraphs (a) and (c) to read as follows:

§ 11.11 The Emergency Alert System (EAS).

a) The EAS is composed of broadcast networks; cable networks and program suppliers; AM, FM Low-power FM (LPFM) and TV broadcast stations; Class A television (CA) stations; Low-power TV (LPTV) stations; cable systems; wireless cable systems which may consist of Broadband Radio Service (BRS), or Educational Broadband Service (EBS) stations; and other entities and industries operating on an organized basis during emergencies at the National, State and local levels. It requires that at a minimum all participants use a common EAS protocol, as defined in § 11.31, to send and receive emergency alerts in accordance with the effective dates in the following tables:

Wireless Cable Systems (BRS/EBS Stations)

[A. Wireless cable systems serving fewer than 5,000 subscribers from a single transmission site must either provide the National level EAS message on all programmed channels--including the required testing--by October 1, 2002, or comply with the following EAS requirements. All other wireless cable systems must comply with B.]

Wireless Cable Systems (BRS/EBS Stations)

* * * * *

(c) For purposes of the EAS, Broadband Radio Service (BRS) and Educational Broadband Service (EBS) stations operated as part of wireless cable systems in accordance with subpart M of part 27 of this chapter are defined as follows:

(1) A "wireless cable system" is a collection of channels in the BRS or EBS used to provide video programming services to subscribers. The channels may be licensed to or leased by the wireless cable system operator.

* * * * *

17. Section 11.31 is amended by revising subparagraph (LLLLLLLL) of paragraph (c) to read as follows:

§ 11.31 EAS protocol.

* * * * *

(c) * * *

LLLLLLLL--This is the identification of the broadcast station, cable system, BRS/EBS station, NWS office, etc., transmitting or retransmitting the message. These codes will be automatically affixed to all

outgoing messages by the EAS encoder.

* * * * *

18. Section 11.35 is amended by revising paragraph (a) to read as follows:

§ 11.35 Equipment operational readiness.

(a) Broadcast stations and cable systems and wireless cable systems are responsible for ensuring that EAS Encoders, EAS Decoders and Attention Signal generating and receiving equipment used as part of the EAS are installed so that the monitoring and transmitting functions are available during the times the stations and systems are in operation. Additionally, broadcast stations and cable systems and wireless cable systems must determine the cause of any failure to receive the required tests or activations specified in §§ 11.61(a)(1) and (2). Appropriate entries must be made in the broadcast station log as specified in § 73.1820 and § 73.1840 of this chapter, cable system record as specified in §§ 76.1700, 76.1708, and 76.1711 of this chapter, BRS station records, indicating reasons why any tests were not received.

* * * * *

PART 15 – RADIO FREQUENCY DEVICES

19. The authority citation for Part 15 continues to read as follows:

AUTHORITY: 47 U.S.C. 154, 302(a), 303, 304, 336, and 544(a), unless otherwise noted.

20. Section 15.205(a) is amended by deleting “2655-2900 MHz” and replacing that listing with “2690-2900 MHz.”

* * * * *

PART 21 – DOMESTIC PUBLIC FIXED RADIO SERVICES

21. Under the authority 47 U.S.C. § 154, amend 47 C.F.R. Chapter I by removing Part 21.

PART 27 – MISCELLANEOUS WIRELESS COMMUNICATIONS SERVICES

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

AUTHORITY: 47 U.S.C. 154 and 303, unless otherwise noted.

23. Section 27.1 is amended by adding the following subparagraph to paragraph (b):

§ 27.1 Basis and purpose.

* * * * *

(9) 2495-2690 MHz.

* * * * *

24. Section 27.3 is amended by deleting paragraph (h) and by redesignating paragraphs (i) through (q) as (h) through (p), respectively.

25. Section 27.4 is amended by adding the following definitions to read as follows:

26.

§ 27.4 Terms and definitions.

* * * * *

Attended operation. Operation of a station by a designated person on duty at the place where the transmitting apparatus is located with the transmitter in the person's plain view.

* * * * *

Booster service area. A geographic area to be designated by an applicant for a booster station, within which the booster station shall be entitled to protection against interference as set forth in this part. The booster service area must be specified by the applicant so as not to overlap the booster service area of any other booster authorized to or proposed by the applicant. However, a booster station may provide service to receive sites outside of its booster service area, at the licensee's risk of interference. The booster station must be capable of providing substantial service within the designated booster service area.

Broadband Radio Service (BRS). A radio service using certain frequencies in the 2150-2162 and 2496-2690 MHz bands which can be used to provide fixed and mobile services, except for aeronautical services.

* * * * *

Documented complaint. A complaint that a party is suffering from non-consensual interference. A documented complaint must contain a certification that the complainant has contacted the operator of the allegedly offending facility and tried to resolve the situation prior to filing. The complaint must then specify the nature of the interference, whether the interference is constant or intermittent, when the interference began and the site(s) most likely to be causing the interference. The complaint should be accompanied by a videotape or other evidence showing the effects of the interference. The complaint must contain a motion for a temporary order to have the interfering station cease transmitting. The complaint must be filed with the Secretary's office and served on the allegedly offending party.

Educational Broadband Service (EBS). A fixed or mobile service, the licensees of which are educational institutions or non-profit educational organizations, and intended primarily for video, data, or voice transmissions of instructional, cultural, and other types of educational material to one or more receiving locations.

* * * * *

Lower Band Segment (LBS). Segment of the BRS/EBS band consisting of channels in the frequencies 2496-2572 MHz.

Middle Band Segment (MBS). Segment of the BRS/EBS band consisting of channels in the frequencies 2572-2614 MHz.

* * * * *

Point-to-point Broadband station. A Broadband station that transmits a highly directional signal from a fixed transmitter location to a fixed receive location.

* * * * *

Remote control. Operation of a station by a designated person at a control position from which the transmitter is not visible but where suitable control and telemetering circuits are provided which allow the performance of the essential functions that could be performed at the transmitter.

* * * * *

Sectorization. The use of an antenna system at an broadband station, booster station and/or response station hub that is capable of simultaneously transmitting multiple signals over the same frequencies to different portions of the service area and/or simultaneously receiving multiple signals over the same frequencies from different portions of the service area.

* * * * *

Studio to transmitter link (STL). A directional path used to transmit a signal from a station's studio to its transmitter.

Temporary fixed broadband station. A broadband station used for the transmission of material from temporary unspecified points to a broadband station.

* * * * *

Unattended operation. Operation of a station by automatic means whereby the transmitter is turned on and off and performs its functions without attention by a designated person.

* * * * *

Upper Band Segment (UBS). Segment of the BRS/EBS band consisting of channels in the frequencies 2614-2690 MHz.

* * * * *

27. Section 27.5 is amended by adding a new paragraph (i) to read as follows:

§ 27.5 Frequencies.

* * * * *

(i) Frequency assignments for the BRS/EBS band.

(1) Pre-transition frequency assignments.

BRS Channel 1: 2150-2156 MHz
BRS Channel 2: 2156-2162 MHz
BRS Channel 2A: 2156-2160 MHz
EBS Channel A1: 2500-2506 MHz
EBS Channel B1: 2506-2512 MHz
EBS Channel A2: 2512-2518 MHz
EBS Channel B2: 2518-2524 MHz
EBS Channel A3: 2524-2530 MHz
EBS Channel B3: 2530-2536 MHz
EBS Channel A4: 2536-2542 MHz
EBS Channel B4: 2542-2548 MHz
EBS Channel C1: 2548-2554 MHz
EBS Channel D1: 2554-2560 MHz
EBS Channel C2: 2560-2566 MHz
EBS Channel D2: 2566-2572 MHz
EBS Channel C3: 2572-2578 MHz
EBS Channel D3: 2578-2584 MHz
EBS Channel C4: 2584-2590 MHz
EBS Channel D4: 2590-2596 MHz
BRS Channel E1: 2596-2602 MHz
BRS Channel F1: 2602-2608 MHz
BRS Channel E2: 2608-2614 MHz
BRS Channel F2: 2614-2620 MHz
BRS Channel E3: 2620-2626 MHz
BRS Channel F3: 2626-2632 MHz
BRS Channel E4: 2632-2638 MHz
BRS Channel F4: 2638-2644 MHz
EBS Channel G1: 2644-2650 MHz
BRS Channel H1: 2650-2656 MHz
EBS Channel G1: 2656-2662 MHz
BRS Channel H1: 2662-2668 MHz
EBS Channel G1: 2668-2674 MHz
BRS Channel H1: 2674-2680 MHz
EBS Channel G1: 2680-2686 MHz
I Channels: 2686-2690 MHz

(2) *Post transition frequency assignments.* The frequencies available in the Broadband Radio Service (BRS) and Educational Broadband Service (EBS) are listed in this section in accordance with the frequency allocations table of §2.106 of this chapter.

i) Lower Band Segment (LBS): The following channels shall constitute the Lower Band Segment:

BRS Channel 1: 2496-2502 MHz
EBS Channel A1: 2502-2507.5 MHz

EBS Channel A2: 2507.5-2513 MHz
EBS Channel A3: 2513-2518.5 MHz
EBS Channel B1: 2518.5-2524 MHz
EBS Channel B2: 2524-2529.5 MHz
EBS Channel B3: 2529.5-2535 MHz
EBS Channel C1: 2535-2540.5 MHz
EBS Channel C2: 2540.5-2546 MHz
EBS Channel C3: 2546-2551.5 MHz
EBS Channel D1: 2551.5-2557 MHz
EBS Channel D2: 2557-2562.5 MHz
EBS Channel D3: 2562.5-2568 MHz
EBS Channel JA1: 2568.00000-2568.33333 MHz
EBS Channel JA2: 2568.33333-2568.66666 MHz
EBS Channel JA3: 2568.66666-2569.00000 MHz
EBS Channel JB1: 2569.00000-2569.33333 MHz
EBS Channel JB2: 2569.33333-2569.66666 MHz
EBS Channel JB3: 2569.66666-2570.00000 MHz
EBS Channel JC1: 2570.00000-2570.33333 MHz
EBS Channel JC2: 2570.33333-2570.66666MHz
EBS Channel JC3: 2570.66666-2571.00000 MHz
EBS Channel JD1: 2571.00000-2571.33333 MHz
EBS Channel JD2: 2571.33333-2571.66666 MHz
EBS Channel JD3: 2571.66666-2572.00000 MHz

ii) Middle Band Segment (MBS): The following channels shall constitute the Middle Band Segment:

EBS Channel A4: 2572-2578 MHz
EBS Channel B4: 2578-2584 MHz
EBS Channel C4: 2584-2590 MHz
EBS Channel D4: 2590-2596 MHz
EBS Channel G4: 2596-2602 MHz
BRS Channel F4: 2602-2608 MHz
BRS Channel E4: 2608-2614 MHz

iii) Upper Band Segment (UBS): The following channels shall constitute the Upper Band Segment:

BRS Channel KH1: 2614.00000-2614.33333 MHz
BRS Channel KH2: 2614.33333-2614.66666 MHz
BRS Channel KH3: 2614.66666-2615.00000 MHz
EBS Channel KG1: 2615.00000-2615.33333 MHz
EBS Channel KG2: 2615.33333-2616.66666 MHz
EBS Channel KG3: 2615.66666-2616.00000 MHz
BRS Channel KF1: 2616.00000-2616.33333 MHz
BRS Channel KF2: 2616.33333-2616.66666MHz
BRS Channel KF3: 2616.66666-2617.00000 MHz
BRS Channel KE1: 2617.00000-2617.33333 MHz
BRS Channel KE2: 2617.33333-2617.66666 MHz
BRS Channel KE3: 2617.66666-2618.00000 MHz
BRS Channel 2: 2618-2624 MHz
BRS Channel E1: 2624-2629.5 MHz
BRS Channel E2: 2629.5-2635 MHz

BRS Channel E3: 2635-2640.5 MHz
EBS Channel F1: 2640.5-2646 MHz
EBS Channel F2: 2646-2651.5 MHz
EBS Channel F3: 2651.5-2657 MHz
BRS Channel H1: 2657-2662.5 MHz
BRS Channel H2: 2662.5-2668 MHz
BRS Channel H3: 2668-2673.5 MHz
BRS Channel G1: 2673.5-2679 MHz
BRS Channel G2: 2679-2684.5 MHz
BRS Channel G3: 2684.5-2690 MHz

Note to paragraph (i)(2): No 125 kHz channels are provided for channels in operation in this service. The 125 kHz channels previously associated with these channels have been reallocated to Channel H3 in the upper band segment.

(3) Frequencies will be assigned as follows:

(i) An EBS licensee is limited to the assignment of no more than one 6 MHz channel in the MBS and three channels in the LBS or UBS for use in a single area of operation. Applicants shall not apply for more channels than they intend to construct within a reasonable time, simply for the purpose of reserving additional channels. The number of channels authorized to an applicant will be based on the demonstration of need for the number of channels requested. The Commission will take into consideration such factors as the amount of use of any currently assigned channels and the amount of proposed use of each channel requested, the amount of, and justification for, any repetition in the schedules, and the overall demand and availability of broadband channels in the community. For those applicant organizations formed for the purpose of serving accredited institutional or governmental organizations, evaluation of the need will only consider service to those specified receive sites which submitted supporting documentation.

(ii) An applicant leasing excess capacity and proposing a schedule which complies in all respects with the requirements of Section 1.9047 will have presumptively demonstrated need for no more than four channels. This presumption is rebuttable by demonstrating that the application does not propose to comport with our educational usage requirements as defined in Section 27.1203, and to transmit the requisite minimum educational usage of Section 1.9047 for genuinely educational purposes.

(4) A temporary fixed broadband station may use any available broadband channel on a secondary basis, except that operation of temporary fixed broadband stations is not allowed within 56.3 km (35 miles) of Canada.

(5)

(i) A point-to-point EBS station on the E and F-channel frequencies, may be involuntarily displaced by a BRS applicant or licensee, provided that suitable alternative spectrum is available and that the BRS entity bears the expenses of the migration. Suitability of spectrum will be determined on a case-by-base basis; at a minimum, the alternative spectrum must be licensable by broadband operators on a primary basis (although it need not be specifically allocated to the broadband service), and must provide a signal that is equivalent to the prior signal in picture quality and reliability, unless the broadband licensee will accept an inferior signal. Potential expansion of the BRS licensee may be considered in determining whether alternative available spectrum is suitable.

(ii) If suitable alternative spectrum is located pursuant to paragraph (h)6(i) of this section, the initiating party must prepare and file the appropriate application for the new spectrum, and must simultaneously serve a copy of the application on the EBS licensee to be moved. The initiating party will

be responsible for all costs connected with the migration, including purchasing, testing and installing new equipment, labor costs, reconfiguration of existing equipment, administrative costs, legal and engineering expenses necessary to prepare and file the migration application, and other reasonable documented costs. The initiating party must secure a bond or establish an escrow account to cover reasonable incremental increase in ongoing expenses that may fall upon the migrated licensee. The bond or escrow account should also account for the possibility that the initiating party subsequently becomes bankrupt. If it becomes necessary for the Commission to assess the sufficiency of a bond or escrow amount, it will take into account such factors as projected incremental increase in electricity or maintenance expenses, or relocation expenses, as relevant in each case.

(iii) The EBS licensee to be moved will have a 60-day period in which to oppose the involuntary migration. The broadband party should state its opposition to the migration with specificity, including engineering and other challenges, and a comparison of the present site and the proposed new site. If involuntary migration is granted, the new facilities must be operational before the initiating party will be permitted to begin its new or modified operations. The migration must not disrupt the broadband licensee's provision of service, and the broadband licensee has the right to inspect the construction or installation work.

28. Section 27.12 is revised to read as follows:

§ 27.12 Eligibility.

Except as provided in §§ 27.604, 27.1201, and 27.1202, any entity other than those precluded by section 310 of the Communications Act of 1934, as amended, 47 U.S.C. 310, is eligible to hold a license under this part.

29. Section 27.50 is amended by redesignating paragraph (h) as (i) and adding a new paragraph (h) to read as follows:

§ 27.50 Power limits.

* * * * *

(h) The following power limits shall apply in the BRS and EBS:

(1) *LBS and UBS*. Base stations are limited to 2000 watts peak EIRP. Mobile stations are limited to 2.0 watts EIRP. Response stations are limited to 2.0 watts transmitter output power.

(2) *MBS*. (i) The maximum EIRP of a main or booster station in the MBS shall not exceed 33 dBW + 10log(X/6) dBW, where X is the actual bandwidth if other than 6 MHz, except as provided in subparagraph (ii) of this section.

(ii) If a main or booster station sectorizes or otherwise uses one or more transmitting antennas with a non-omnidirectional horizontal plane radiation pattern, the maximum EIRP over a 6 MHz channel in dBW in a given direction shall be determined by the following formula:

$$\text{EIRP} = 33 \text{ dBW} + 10 \log(X/6) \text{ dBW} + 10 \log(360/\text{beamwidth}) \text{ dBW}$$
, where X is the channel width in MHz and $10 \log(360/\text{beamwidth}) \leq 6 \text{ dB}$. Beamwidth is the total horizontal plane beamwidth of the individual transmitting antenna for the station or any sector measured at the half-power points.

(3) For television transmission, the peak power of the accompanying aural signal must not exceed 10 percent of the peak visual power of the transmitter. The Commission may order a reduction in aural signal power to diminish the potential for harmful interference.

(4) For main, booster and response stations utilizing digital emissions with non-uniform power spectral density (e.g. unfiltered QPSK), the power measured within any 100 kHz resolution bandwidth within the 6 MHz channel occupied by the non-uniform emission cannot exceed the power permitted within any 100 kHz resolution bandwidth within the 6 MHz channel if it were occupied by an emission with uniform power spectral density, i.e., if the maximum permissible power of a station utilizing a perfectly uniform power spectral density across a 6 MHz channel were 2000 watts EIRP, this would result in a maximum permissible power flux density for the station of $2000/60 = 33.3$ watts EIRP per 100 kHz bandwidth. If a non-uniform emission were substituted at the station, station power would still be limited to a maximum of 33.3 watts EIRP within any 100 kHz segment of the 6 MHz channel, irrespective of the fact that this would result in a total 6 MHz channel power of less than 2000 watts EIRP.

* * * * *

30. Section 27.53 is amended by redesignating paragraph (l) as paragraph (m) by adding a new paragraph (l) to read as follows:

§ 27.53 Emission limits.

* * * * *

(l) For BRS and EBS stations, the power of any emissions outside the licensee's frequency bands of operation shall be attenuated below the transmitter power (P) measured in watts.

(1) For analog operations in the MBS with an EIRP in excess of -9 dBW, the signal shall be attenuated at the channel edges by at least 38 dB relative to the peak visual carrier, then linearly sloping from that level to at least 60 dB of attenuation at 1 MHz below the lower band edge and 0.5 MHz above the upper band edge, and attenuated at least 60 dB at all other frequencies.

(2) For fixed and temporary fixed digital stations, the attenuation shall be not less than $43 + 10 \log (P)$ dB, unless a documented interference complaint is received from an adjacent channel licensee. Provided that the complaint cannot be mutually resolved between the parties, both licensees of existing and new systems shall reduce their out-of-band emissions by at least $67 + 10 \log (P)$ dB measured at 3 MHz from their channel's edges for distances between stations exceeding 1.5 km. For stations separated by less than 1.5 km, the new licensee shall reduce attenuation at least $67 + 10 \log (P) - 20 \log (D_{km}/1.5)$, or when colocated, limit the undesired signal level at the affected licensee's base station receiver(s) at the collocation site to no more than -107 dBm. Mobile Service Satellite licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

(3) For mobile digital stations, the attenuation factor shall be not less than $43 + 10 \log (P)$ dB at the channel edge and $55 + 10 \log (P)$ dB at 5.5 MHz from the channel edges. Mobile Service Satellite licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

(4) Measurement procedure. Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower

resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 1 MHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power. With respect to television operations, measurements must be made of the separate visual and aural operating powers at sufficiently frequent intervals to ensure compliance with the rules.

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

* * * * *

31. Section 27.55 is amended by revising paragraph (a) to include a new subparagraph (4) to read as follows:

Sec. 27.55 Signal Strength Limits.

(a)* * *

(4) BRS and UBS: The predicted or measured median field strength at any location on the geographical border of a licensee's service area shall not exceed the value specified unless the adjacent affected service area licensee(s) agree(s) to a different field strength. This value applies to both the initially offered services areas and to partitioned services areas. Licensees may exceed this signal level where there is no affected licensee that is constructed and providing service. Once the affected licensee is providing service, the original licensee will be required to take whatever steps necessary to comply with the applicable power level at its GSA boundary, absent consent from the affected licensee.

(i) LBS and UBS band: 47 dB [m μ] V/m. This field strength is to be measured at 1.5 meters above the ground over the channel bandwidth (i.e., each 5.5 MHz channel for licensees that hold a full channel block, and for the 5.5 MHz channel for licensees that hold individual channels).

(ii) MBS band: -73.0 dBW/m².

* * * * *

32. Section 27.58 is amended by revising the title of the rule and by revising paragraphs (a), (d) and (e) to read as follows:

§ 27.58 Interference to BRS/EBS Receivers.

(a) WCS licensees shall bear full financial obligation to remedy interference to BRS/EBS block downconverters if all of the following conditions are met:

- (1) The complaint is received by the WCS licensee prior to February 20, 2002;
- (2) The BRS/EBS downconverter was installed prior to August 20, 1998;

(3) The WCS fixed or land station transmits at 50 or more watts peak EIRP;

(4) The BRS/EBS downconverter is located within a WCS transmitter's free space power flux density contour of -34 dBW/m²; and

(5) The BRS/EBS customer or licensee has informed the WCS licensee of the interference within one year from the initial operation of the WCS transmitter or within one year from any subsequent power increases at the WCS station.

* * * * *

(d) If the WCS licensee cannot otherwise eliminate interference caused to BRS/EBS reception, then that licensee must cease operations from the offending WCS facility.

(e) At least 30 days prior to commencing operations from any new WCS transmission site or with increased power from any existing WCS transmission site, a WCS licensee shall notify all BRS/EBS licensees in or through whose licensed service areas they intend to operate of the technical parameters of the WCS transmission facility. WCS and BRS/EBS licensees are expected to coordinate voluntarily and in good faith to avoid interference problems and to allow the greatest operational flexibility in each other's operations.

* * * * *

33. Part 27 is amended to add a new Subpart M to read as follows:

Subpart M—Broadband Radio Service and Educational Broadband Service

27.1200 Change to BRS and EBS.

27.1201 EBS Eligibility.

27.1202 Cable/BRS Cross-ownership.

27.1203 EBS Programming Requirements.

27.1206 Geographic Service Area.

27.1207 BTA License Authorization.

27.1208 Service Areas.

27.1209 Conversion of Incumbent EBS and BRS Stations to Geographic Area Licensing.

27.1210 Remote Control Operation.

27.1211 Unattended Operation.

27.1212 License Term.

27.1213 Designated entity provisions for BRS in Commission auctions commencing prior to January 1, 2004.

27.1214 EBS spectrum leasing arrangements and grandfathered leases.

Technical Standards

27.1220 Transmission standards.

27.1221 Interference Protection.

27.1222 Operations in the 2568-2572 and 2614-2618 bands.

Policies Governing the Transition of the 2500-2690 MHz Band for BRS and EBS.

27.1230 Conversion of the 2500-2690 MHz band.

27.1231 Initiating the transition.

27.1232 Planning the Transition.

27.1233 Reimbursement costs of transitioning.

27.1234 Terminating existing operations in transitioned markets.

27.1235 Post-transition notification.

§ 27.1200 Change to BRS and EBS.

(a) As of [Insert the effective date of the rules], licensees assigned to the Multipoint Distribution Service (MDS) and the Multichannel Multipoint Distribution Service (MMDS) shall be reassigned to the Broadband Radio Service (BRS) and licensees in the Instructional Television Fixed Service (ITFS) shall be reassigned to the Educational Broadband Service (EBS).

§ 27.1201 EBS Eligibility.

(a) With certain limited exceptions set forth in (c) below, a license for an Educational Broadband Service station will be issued only to an accredited institution or to a governmental organization engaged in the formal education of enrolled students or to a nonprofit organization whose purposes are educational and include providing educational and instructional television material to such accredited institutions and governmental organizations, and which is otherwise qualified under the statutory provisions of the Communications Act of 1934, as amended.

(1) A publicly supported educational institution must be accredited by the appropriate state department of education.

(2) A privately controlled educational institution must be accredited by the appropriate state department of education or the recognized regional and national accrediting organizations.

(3) Those applicant organizations whose eligibility is established by service to accredited institutional or governmental organizations must submit documentation from proposed receive sites demonstrating that they will receive and use the applicant's educational usage. In place of this documentation, a state educational television (ETV) commission may demonstrate that the public schools it proposes to serve are required to use its proposed educational usage. Documentation from proposed receive sites which are to establish the eligibility of an entity not serving its own enrolled students for credit should be in letter form, written and signed by an administrator or authority who is responsible for the receive site's curriculum planning. No receive site more than 35 miles from the transmitter site shall be used to establish basic eligibility. The administrator must indicate that the applicant's program offerings have been viewed and that such programming will be incorporated in the site's curriculum. The letter should discuss the types of programming and hours per week of formal and informal programming expected to be used and the site's involvement in the planning, scheduling and production of programming. If other levels of authority must be obtained before a firm commitment to utilize the service can be made, the nature and extent of such additional authorization(s) must be provided.

(4) Nonlocal applicants, in addition to submitting letters from proposed receive sites, must demonstrate the establishment of a local program committee in each community where they apply. Letters submitted on behalf of a nonlocal entity must confirm that a member of the receive site's staff will serve on the local program committee and demonstrate a recognition of the composition and power of the committee. The letter should show that the staff member will aid in the selection, scheduling and production of the programming received over the system.

(b) No numerical limit is placed on the number of stations which may be licensed to a single licensee. A single license may be issued for more than one transmitter if they are to be located at a common site and operated by the same licensee. Applicants are expected to accomplish the proposed operation by the use of the smallest number of channels required to provide the needed service.

(c) (1) Notwithstanding paragraph (a), a wireless cable entity may be licensed on EBS frequencies in areas where at least eight other EBS channels remain available in the community for future EBS use. Channels will be considered available for future EBS use if there are no co-channel operators or applicants within 80.5 km (50 miles) of the transmitter site of the proposed wireless cable operation, and if the transmitter site remains available for use at reasonable terms by new EBS applicants on those channels within three years of commencing operation.

(2) No more than eight EBS channels per community may be licensed to wireless cable entities.

(3) To be licensed on EBS channels, a wireless cable applicant must hold a license or a lease, or must have filed an unopposed application for at least four BRS channels to be used in conjunction with the facilities proposed on the EBS frequencies. An unopposed application is one that faces no competing application(s) or petition(s) to deny. Applicants will be required to confirm their unopposed status after the period for filing competing applications and petitions to deny has passed. If a BRS application is opposed, the companion EBS application will be returned.

(4) To be licensed on EBS channels, a wireless cable applicant must show that there are no BRS channels available for application, purchase or lease that could be used in lieu of the EBS frequencies applied for. A wireless cable entity may apply for EBS channels at the same time it applies for the related BRS frequencies, but if that BRS application is opposed by a timely filed mutually exclusive application or petition to deny, the application for EBS facilities will be returned.

(5) If an EBS application and a wireless cable application for available EBS facilities are mutually exclusive, the EBS application will be granted if the applicant is qualified. An EBS applicant may not file an application mutually exclusive with a wireless cable application if there are other EBS channels available for the proposed EBS facility.

(6) (i) An educational institution or entity that would be eligible for EBS channels that are licensed to a wireless cable entity may be entitled to access to those channels. Requests for access may be made by filing a request with the Commission. A cover letter must clearly indicate that the application is for EBS access to a wireless cable entity's facilities on EBS channels.

(ii) An EBS entity determined by the Commission to have right of access to wireless cable licensed facilities may have access to a maximum of 40 hours per channel per week. The EBS entity has the right to designate 20 of those hours as follows: 3 hours of the EBS entity's choice each day, Monday through Friday, between 8 a.m. and 10 p.m., excluding weekends, holidays and school vacations; and the remaining five hours any time of the EBS entity's choice between 8 a.m. and 10 p.m., Monday through Saturday.

(iii) No time-of-day and day-of-week obligations will be imposed on either party with respect to the other 20 hours of access time.

(iv) The EBS user must provide the wireless cable licensee with its planned schedule of use four months in advance. No minimum amount of programming will be required of an EBS operator seeking access to one channel; for access to a second channel, the EBS user must use at least 20 hours per week on the first channel from 8 a.m. to 10 p.m., Monday through Saturday; for access to a third channel, the EBS entity must use at least 20 hours per week on the first channel and on the second channel during the hours prescribed above, and so on. Only one educational institution or entity per wireless cable licensed channel will be entitled to access from the wireless cable entity. Access will not be granted to a single entity for more than four channels, unless it can satisfy the waiver provisions of § 27.5(i)(3) of this part.

(v) When an EBS entity is granted access to an EBS channel of a wireless cable licensee, the wireless cable licensee will be required to pay half of the cost of five standard receive sites on that channel. The wireless cable entity may, at its option, pay the costs of an application and facility construction for such EBS entity on other available EBS channels, including half of the cost of five receive sites per channel.

(vi) After three years of operation, a wireless cable entity licensed to use EBS channels will not be required to grant new or additional access to such EBS channels, or provide any alternative facilities to any EBS entity seeking access to its facilities, if there are suitable EBS frequencies available for the EBS

entity to build its own system.

(vii) The parties may mutually agree to modify any requirements or obligations imposed by these provisions, except for the requirement that an educational entity use at least 20 hours per week on a channel of a wireless cable licensee before requesting access to an additional channel.

§ 27.1202 Cable/BRS Cross-ownership.

(a) Initial or modified authorizations for BRS stations may not be granted to a cable operator if a portion of the BRS station's protected services area is within the portion of the franchise area actually served by the cable operator's cable system and the cable operator will be using the BRS station as a multichannel video programming distributor (as defined in Section 76.64(d) of this chapter). No cable operator may acquire such authorization either directly, or indirectly through an affiliate owned, operated, or controlled by or under common control with a cable operator if the cable operator will use the BRS station as a multichannel video programming distributor.

(b) No licensee of a station in this service may lease transmission time or capacity to a cable operator either directly, or indirectly through an affiliate owned, operated, controlled by, or under common control with a cable operator, if a portion of the BRS station's protected services area is within the portion of the franchise area actually served by the cable operator's cable system the cable operator will use the BRS station as a multichannel video programming distributor.

(c) Applications for new stations, station modifications, assignments or transfers of control by cable operators of BRS stations shall include a showing that no portion of the PSA of the BRS station is within the portion of the franchise area actually served by the cable operator's cable system, or of any entity indirectly affiliated, owned, operated, controlled by, or under common control with the cable operator. Alternatively, the cable operator may certify that it will not use the BRS station to distribute multichannel video programming.

Note 1: In applying the provisions of this section, ownership and other interests in BRS licensees or cable television systems will be attributed to their holders and deemed cognizable pursuant to the following criteria:

(a) Except as otherwise provided herein, partnership and direct ownership interests and any voting stock interest amounting to 5% or more of the outstanding voting stock of a corporate BRS licensee or cable television system will be cognizable;

(b) Investment companies, as defined in 15 U.S.C. § 80a-3, insurance companies and banks holding stock through their trust departments in trust accounts will be considered to have a cognizable interest only if they hold 20% or more of the outstanding voting stock of a corporate BRS licensee or cable television system, or if any of the officers or directors of the BRS licensee or cable television system are representatives of the investment company, insurance company or bank concerned. Holdings by a bank or insurance company will be aggregated if the bank or insurance company has any right to determine how the stock will be voted. Holdings by investment companies will be aggregated if under common management.

(c) Attribution of ownership interests in a BRS licensee or cable television system 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 wherever the ownership percentage for any link in the chain exceeds 50%, it shall not be included for purposes of this

multiplication. For purposes of paragraph (i) of this note, attribution of ownership interests in a BRS licensee or cable television system that are held indirectly by any party through one or more intervening organizations 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, and the ownership percentage for any link in the chain that exceeds 50% shall be included for purposes of this multiplication. [For example, except for purposes of paragraph (i) of this note, if A owns 10% of company X, which owns 60% of company Y, which owns 25% of "Licensee," then X's interest in "Licensee" would be 25% (the same as Y's interest because X's interest in Y exceeds 50%), and A's interest in "Licensee" would be 2.5% (0.1×0.25). Under the 5% attribution benchmark, X's interest in "Licensee" would be cognizable, while A's interest would not be cognizable. For purposes of paragraph (i) of this note, X's interest in "Licensee" would be 15% (0.6×0.25) and A's interest in "Licensee" would be 1.5% ($0.1 \times 0.6 \times 0.25$). Neither interest would be attributed under paragraph (i) of this note.]

(d) Voting stock interests held in trust shall be attributed to any person who holds or shares the power to vote such stock, to any person who has the sole power to sell such stock, and to any person who has the right to revoke the trust at will or to replace the trustee at will. If the trustee has a familial, personal or extra-trust business relationship to the grantor or the beneficiary, the grantor or beneficiary, as appropriate, will be attributed with the stock interests held in trust. An otherwise qualified trust will be ineffective to insulate the grantor or beneficiary from attribution with the trust's assets unless all voting stock interests held by the grantor or beneficiary in the relevant BRS licensee or cable television system are subject to said trust.

(e) Subject to paragraph (i) of this note, holders of non-voting stock shall not be attributed an interest in the issuing entity. Subject to paragraph (i) of this note, holders of debt and instruments such as warrants, convertible debentures, options or other non-voting interests with rights of conversion to voting interests shall not be attributed unless and until conversion is effected.

(f)(1) A limited partnership interest shall be attributed to a limited partner unless that partner is not materially involved, directly or indirectly, in the management or operation of the BRS or cable television activities of the partnership and the licensee or system so certifies. An interest in a Limited Liability Company ("LLC") or Registered Limited Liability Partnership ("RLLP") shall be attributed to the interest holder unless that interest holder is not materially involved, directly or indirectly, in the management or operation of the BRS or cable television activities of the partnership and the licensee or system so certifies.

(2) For a licensee or system that is a limited partnership to make the certification set forth in paragraph (f)(1) of this note, it must verify that the partnership agreement or certificate of limited partnership, with respect to the particular limited partner exempt from attribution, establishes that the exempt limited partner has no material involvement, directly or indirectly, in the management or operation of the BRS or cable television activities of the partnership. For a licensee or system that is an LLC or RLLP to make the certification set forth in paragraph (f)(1) of this note, it must verify that the organizational document, with respect to the particular interest holder exempt from attribution, establishes that the exempt interest holder has no material involvement, directly or indirectly, in the management or operation of the BRS or cable television activities of the LLC or RLLP. Irrespective of the terms of the certificate of limited partnership or partnership agreement, or other organizational document in the case of an LLC or RLLP, however, no such certification shall be made if the individual or entity making the certification has actual knowledge of any material involvement of the limited partners, or other interest holders in the case of an LLC or RLLP, in the management or operation of the BRS or cable television businesses of the partnership or LLC or RLLP.

(3) In the case of an LLC or RLLP, the licensee or system seeking installation shall certify, in addition, that the relevant state statute authorizing LLCs permits an LLC member to insulate itself as required by our criteria.

(g) Officers and directors of a BRS licensee or cable television system are considered to have a cognizable interest in the entity with which they are so associated. If any such entity engages in businesses in addition to its primary business of BRS or cable television service, it may request the Commission to waive attribution for any officer or director whose duties and responsibilities are wholly unrelated to its primary business. The officers and directors of a parent company of a BRS licensee or cable television system, with an attributable interest in any such subsidiary entity, shall be deemed to have a cognizable interest in the subsidiary unless the duties and responsibilities of the officer or director involved are wholly unrelated to the BRS licensee or cable television system subsidiary, and a statement properly documenting this fact is submitted to the Commission. The officers and directors of a sister corporation of a BRS licensee or cable television system shall not be attributed with ownership of these entities by virtue of such status.

(h) Discrete ownership interests will be aggregated in determining whether or not an interest is cognizable under this section. An individual or entity will be deemed to have a cognizable investment if:

- (1) The sum of the interests held by or through "passive investors" is equal to or exceeds 20 percent; or
- (2) The sum of the interests other than those held by or through "passive investors" is equal to or exceeds 5 percent; or
- (3) The sum of the interests computed under paragraph (h)(1) of this note plus the sum of the interests computed under paragraph (h)(2) of this note is equal to or exceeds 20 percent.

(i) Notwithstanding paragraphs (e) and (f) of this note, the holder of an equity or debt interest or interests in a BRS licensee or cable television system subject to the BRS/cable cross-ownership rule ("interest holder") shall have that interest attributed if:

- (1) The equity (including all stockholdings, whether voting or nonvoting, common or preferred) and debt interest or interests, in the aggregate, exceed 33 percent of the total asset value (all equity plus all debt) of that BRS licensee or cable television system; and
- (2) The interest holder also holds an interest in a BRS licensee or cable television system that is attributable under paragraphs of this note other than this paragraph (i) and which operates in any portion of the franchise area served by that cable operator's cable system.

(j) The term "area served by a cable system" means any area actually passed by the cable operator's cable system and which can be connected for a standard connection fee.

(k) As used in this section "cable operator" shall have the same definition as in § 76.5 of this chapter.

Note 2: The Commission will entertain requests to waive the restrictions in paragraph (a) of this section where necessary to ensure that all significant portions of the franchise area are able to obtain multichannel video service.

(d) The provisions of paragraphs (a) through (c) of this section will not apply to one BRS channel used to provide locally-produced programming to cable headends. Locally-produced programming is programming produced in or near the cable operator's franchise area and not broadcast on a television station available within that franchise area. A cable operator will be permitted one BRS channel for this purpose, and no more than one BRS channel may be used by a cable television company or its affiliate or lessor pursuant to this paragraph. The licensee for a cable operator providing local programming pursuant to a lease must include in a notice filed with the Wireless Telecommunications Bureau a cover letter explicitly identifying itself or its lessees as a local cable operator and stating that the lease was executed to facilitate the provision of local programming. The first application or the first lease notification in an area filed with the Commission will be entitled to the exemption. The limitations on one BRS channel per party and per area include any cable/BRS operations or cable/EBS operations. The cable operator must demonstrate in its BRS application that the proposed local programming will be provided within one year from the date its application is granted. Local programming service pursuant to a lease must be provided within one year of the date of the lease or one year of grant of the licensee's application for the leased channel, whichever is later. If a BRS license for these purposes is granted and the programming is subsequently discontinued, the license will be automatically forfeited the day after local programming service is discontinued.

(e) Applications filed by cable television companies, or affiliates, for BRS channels prior to February 8, 1990, will not be subject to the prohibitions of this section. Applications filed on February 8, 1990, or thereafter will be returned. Lease arrangements between cable and BRS entities for which a lease or a firm agreement was signed prior to February 8, 1990, will also not be subject to the prohibitions of this section. Leases between cable television companies, or affiliates, and BRS station licensees, conditional licensees, or applicants executed on February 8, 1990, or thereafter, are invalid.

(1) Applications filed by cable operators, or affiliates, for BRS channels prior to February 8, 1990, will not be subject to the prohibitions of this section. Except as provided in paragraph (e)(2) below, applications filed on February 8, 1990, or thereafter will be returned. Lease arrangements between cable and BRS entities for which a lease or a firm agreement was signed prior to February 8, 1990, will also not be subject to the prohibitions of this section. Except as provided in paragraph (e)(2) below, leases between cable operators, or affiliates, and BRS/EBS station licensees, conditional licensees, or applicants executed on or before February 8, 1990, or thereafter are invalid.

(2) Applications filed by cable operators, or affiliates for BRS channels after February 8, 1990, and prior to October 5, 1992, will not be subject to the prohibition of this section, if, pursuant to the then existing overbuild or rural exceptions, the applications were allowed under the then existing cable/BRS cross-ownership prohibitions. Lease arrangements between cable operators and BRS entities for which a lease or firm agreement was signed after February 8, 1990, and prior to October 5, 1992, will not be subject to the prohibitions of this section, if, pursuant to the then existing rural and overbuild exceptions, the lease arrangements were allowed.

(3) The limitations on cable television ownership in this section do not apply to any cable operator in any franchise area in which a cable operator is subject to effective competition as determined under section 623(l) of the Communications Act.

§ 27.1203 EBS Programming Requirements.

(a) Except as provided in paragraphs (b), (c), and (d) of this section, BRS and EBS licensees are authorized to provide fixed or mobile service, except aeronautical mobile service, subject to the technical requirements of subparts C and M of this part.

(b) Educational Broadband Service stations are intended primarily through video, data, or voice transmissions to further the educational mission of accredited public and private schools, colleges and universities providing a formal educational and cultural development to enrolled students. Authorized educational broadband channels must be used to further the educational mission of accredited schools offering formal educational courses to enrolled students, with limited exceptions as set forth in section §§ 27.1201(c) of this chapter.

(c) In furtherance of the educational mission of accredited schools, Educational Broadband Service stations may be used for:

- (1) In-service training and instruction in special skills and safety programs, extension of professional training, informing persons and groups engaged in professional and technical activities of current developments in their particular fields, and other similar endeavors;
- (2) Transmission of material directly related to the administrative activities of the licensee, such as the holding of conferences with personnel, distribution of reports and assignments, exchange of data and statistics, and other similar uses.

(d) Stations, including high-power EBS signal booster stations, may be licensed in the EBS as originating or relay stations to interconnect educational broadband fixed stations in adjacent areas, to deliver instructional and cultural material to, and obtain such material from, commercial and noncommercial educational television broadcast stations for use on the educational broadband system, and to deliver instructional and cultural material to, and obtain such material from, nearby terminals or connection points of closed circuit educational television systems employing wired distribution systems or radio facilities authorized under other parts of this Chapter, or to deliver instructional and cultural material to any cable television system serving a receiving site or sites which would be eligible for direct reception of EBS signals under the provisions of Section 27.1201.

§ 27.1206 Geographic Service Area.

(a) The Geographic Service Area (GSA) is either:

(1) the area for incumbent site-based licensees that is bounded by a circle having a 35 mile radius and centered at the station's reference coordinates, which was the previous PSA entitled to incumbent licensees prior to [effective date of the rules], and is bounded by the chord(s) drawn between intersection points of the licensee's previous 35 mile PSA and those of respective adjacent market, co-channel licensees;

or:

(2) the BTA that is licensed to the respective BRS BTA authorization holder subject to the exclusion of overlapping, co-channel incumbent GSAs as described in subpart (a)(1) of this rule.

(b) If the license for an incumbent BRS station cancels or is forfeited, the GSA area of the incumbent station shall dissolve and the right to operate in that area automatically reverts to the GSA licensee that held the corresponding BTA.

§ 27.1207 BTA License Authorization.

(a) Winning bidders must file an application (FCC Form 601) for an initial authorization in each market and frequency block.

(b) Blanket licenses are granted for each market and frequency block. Blanket licenses cover all mobile and response stations. Blanket licenses also cover all fixed stations anywhere within the authorized service area, except as follows:

(1) A station would be required to be individually licensed if:

- (i) International agreements require coordination;
- (ii) Submission of an Environmental Assessment is required under § 1.1307 of this chapter;
- (iii) The station would affect the radio quiet zones under § 1.924 of this chapter.

(2) Any antenna structure that requires notification to the Federal Aviation Administration (FAA) must be registered with the Commission prior to construction under § 17.4 of this chapter.

§ 27.1208 Service Areas.

Most BRS/EBS service areas are Basic Trading Areas (BTAs). BTAs are based on the Rand McNally 1992 Commercial Atlas & Marketing Guide, 123rd Edition, at pages 38-39. The following are additional BRS or EBS service areas in places where Rand McNally has not defined BTAs: American Samoa; Guam; Northern Mariana Islands; Mayaguez/Aguadilla-Ponce, Puerto Rico; San Juan, Puerto Rico; and the United States Virgin Islands. The Mayaguez/Aguadilla-Ponce, PR, service area consists of the following municipios: Adjuntas, Aguada, Aguadilla, Anasco, Arroyo, Cabo Rojo, Coamo, Guanica, Guayama, Guayanilla, Hormigueros, Isabela, Jayuya, Juana Diaz, Lajas, Las Marias, Maricao, Maunabo, Mayaguez, Moca, Patillas, Penuelas, Ponce, Quebradillas, Rincón, Sabana Grande, Salinas, San German, Santa Isabel, Villalba and Yauco. The San Juan service area consists of all other municipios in Puerto Rico.

§ 27.1209 Conversion of Incumbent EBS and BRS Stations to Geographic Area Licensing.

(a) Any EBS or BRS station licensed by the Commission, other than BTA authorizations and facilities authorized pursuant to BTA authorizations, shall be considered an incumbent station.

(b) As of [insert effective date of rules], all incumbent EBS and BRS licenses shall be converted to a geographic area license. Pursuant to that geographic area license, such incumbent licensees may modify their systems provided the modified system complies with the applicable rules. The blanket license covers all fixed stations anywhere within the authorized service area, except as follows:

(1) A station would be required to be individually licensed if:

- (i) International agreements require coordination;
- (ii) Submission of an Environmental Assessment is required under § 1.1307 of this chapter;
- (iii) The station would affect the radio quiet zones under § 1.924 of this chapter.

(2) Any antenna structure that requires notification to the Federal Aviation Administration (FAA) must be registered with the Commission prior to construction under § 17.4 of this chapter.

(c) The frequencies associated with incumbent authorizations that have been cancelled automatically or otherwise been recovered by the Commission will automatically revert to the applicable BTA licensee.

§ 27.1210 Remote Control Operation.

Licensed BRS/EBS stations may be operated by remote control without further authority.

§ 27.1211 Unattended Operation.

Unattended operation of licensed BRS/EBS stations is permitted without further authority. An unattended relay station may be employed to receive and retransmit signals of another station provided that the transmitter is equipped with circuits which permit it to radiate only when the signal intended to be retransmitted is present at the receiver input terminals.

§27.1212 License Term.

(a) BRS/EBS licenses shall be issued for a period of 10 years beginning with the date of grant.

(b) An initial BTA authorization shall be issued for a period of ten years from the date the Commission declared bidding closed in the MDS auction.

§ 27.1213 Designated entity provisions for BRS in Commission auctions commencing prior to January 1, 2004.

(a) Eligibility for small business provisions. For purposes of Commission auctions commencing prior to January 1, 2004 for BRS licenses, a small business is an entity that together with its affiliates has average annual gross revenues that are not more than \$40 million for the preceding three calendar years.

(b) Designated entities. As specified in this section, designated entities that are winning bidders in Commission auctions commencing prior to January 1, 2004 for BTA service areas are eligible for special incentives in the auction process. See 47 CFR 1.2110.

(c) Installment payments. Small businesses and small business consortia may elect to pay the full amount of their winning bids in Commission auctions commencing prior to January 1, 2004 for BTA service areas in installments over a ten (10) year period running from the date that their BTA authorizations are issued.

(1) Upon issuance of a BTA authorization to a winning bidder in a Commission auction commencing prior to January 1, 2004 that is eligible for installment payments, the Commission will notify such eligible BTA authorization holder of the terms of its installment payment plan. For BRS, such installment payment plans will:

(i) Impose interest based on the rate of ten (10) year U.S. Treasury obligations at the time of issuance of the BTA authorization, plus two and one half (2.5) percent;

(ii) Allow installment payments for a ten (10) year period running from the date that the BTA authorization is issued;

(iii) Begin with interest-only payments for the first two (2) years; and

(iv) Amortize principal and interest over the remaining years of the ten (10) year period running from the date that the BTA authorization is issued.

(2) Conditions and obligations. See Sec. 1.2110(f)(4) of this chapter.

(3) Unjust enrichment. If an eligible BTA authorization holder that utilizes installment financing under this subsection seeks to partition, pursuant to applicable rules, a portion of its BTA containing one-third or more of the population of the area within its control in the licensed BTA to an entity not meeting the eligibility standards for installment payments, the holder must make full payment of the remaining unpaid principal and any unpaid interest accrued through the date of partition as a condition of approval.

(d) Reduced upfront payments. For purposes of Commission auctions commencing prior to January 1, 2004 for BRS licenses, a prospective bidder that qualifies as a small business, or as a small business consortia, is eligible for a twenty-five (25) percent reduction in the amount of the upfront payment

otherwise required. To be eligible to bid on a particular BTA, a small business will be required to submit an upfront payment equal to seventy-five (75) percent of the upfront payment amount specified for that BTA in the public notice listing the upfront payment amounts corresponding to each BTA service area being auctioned.

(e) Bidding credits. For purposes of Commission auctions commencing prior to January 1, 2004 for BRS licenses, a winning bidder that qualifies as a small business, or as a small business consortia, may use a bidding credit of fifteen (15) percent to lower the cost of its winning bid on any of the BTA authorizations awarded in the Commission BRS auctions commencing prior to January 1, 2004.

(f) Short-form application certification; Long-form application or statement of intention disclosure. A BRS applicant in a Commission auction commencing prior to January 1, 2004 claiming designated entity status shall certify on its short-form application that it is eligible for the incentives claimed. A designated entity that is a winning bidder for a BTA service area(s) shall, in addition to information otherwise required, file an exhibit to either its initial long-form application for a BRS station license, or to its statement of intention with regard to the BTA, which discloses the gross revenues for each of the past three years of the winning bidder and its affiliates. This exhibit shall describe how the winning bidder claiming status as a designated entity satisfies the designated entity eligibility requirements, and must list and summarize all agreements that affect designated entity status, such as partnership agreements, shareholder agreements, management agreements and other agreements, including oral agreements, which establish that the designated entity will have both de facto and de jure control of the entity. See 47 CFR 1.2110(i).

(g) Records maintenance. All holders of BTA authorizations acquired in a Commission auction commencing prior to January 1, 2004 that claim designated entity status shall maintain, at their principal place of business or with their designated agent, an updated documentary file of ownership and revenue information necessary to establish their status. Holders of BTA authorizations or their successors in interest shall maintain such files for a ten (10) year period running from the date that their BTA authorizations are issued. The files must be made available to the Commission upon request.

§ 27.1214 EBS spectrum leasing arrangements and grandfathered leases.

(a) A licensee in the EBS that is solely utilizing analog transmissions may enter into a spectrum leasing arrangement to transmit material other than the educational programming defined in Sections 27.1203(b) and (c) of this subpart, subject to the following conditions:

(1) Before entering into a spectrum leasing arrangement involving material other than educational programming on any one channel, the licensee must provide at least 20 hours per week of EBS educational programming (as defined in Sections 27.1203(b) and (c) of this Chapter) on that channel, except as provided in paragraphs (a)(2) and (a)(3) of this section. An additional 20 hours per week per channel must be strictly reserved for EBS use and not used for non-EBS purposes, or reserved for recapture by the EBS licensee for its EBS educational usage, subject to one year's advance, written notification by the EBS licensee to its lessee and accounting for all recapture already exercised, with no economic or operational detriment to the licensee. These hours of recapture are not restricted as to time of day or day of the week, but may be established by negotiations between the EBS licensee and the lessee. The 20 hours per channel per week EBS educational usage requirement and the recapture and/or reservation requirement of an additional 20 hours per channel per week shall apply spectrally over the licensee's whole actual service area.

(2) For the first two years of operation, an EBS entity may enter into a spectrum leasing arrangement involving material other than educational programming if it provides EBS educational usage for at least 12 hours per channel per week, provided that the entity does not employ channel loading technology.

(3) The licensee may shift its requisite EBS educational usage onto fewer than its authorized number of channels, via channel mapping or channel loading technology, so that it can enter into a spectrum leasing arrangement involving full-time channel capacity on its EBS station and/or associated EBS booster stations, subject to the condition that it provide a total average of at least 20 hours per channel per week of EBS educational usage on its authorized channels. The use of channel mapping or channel loading consistent with the Rules shall not be considered adversely to the EBS licensee in seeking a license renewal. The licensee also retains the unbridgeable right to recapture, subject to six months' advance written notification by the EBS licensee to the spectrum lessee, an average of an additional 20 hours per channel per week, accounting for all recapture already exercised. Regardless of whether the licensee has educational receive sites within its GSA, the licensee may lease booster stations in the entire GSA, provided that the licensee maintains the unbridgeable right to ready recapture at least 40 hours per channel per week for EBS educational usage. The licensee may agree to the transmission of this recapture time on channels not authorized to it, but which are included in the wireless system of which it is a part. A licensee under this paragraph which enters into a spectrum leasing arrangement on any one of its channels to an operator may "channel shift" pursuant to and under the conditions of paragraph (d)(2) of this section.

(b) A licensee utilizing digital transmissions on any of its licensed channels may enter into a spectrum leasing arrangement to transmit material other than the educational programming defined in Sections 27.1203(b) and (c) of this subpart, subject to the following conditions:

(1) The licensee must reserve a minimum of 5% of the capacity of its channels for instructional purposes only, and may not enter into a spectrum leasing arrangement involving this reserved capacity. In addition, before leasing excess capacity, the licensee must provide at least 20 hours per licensed channel per week of EBS educational usage. This 5% reservation and this 20 hours per licensed channel per week EBS educational usage requirement shall apply spectrally over the licensee's whole actual service area. However, regardless of whether the licensee has an educational receive site within its GSA served by a booster, the licensee may lease excess capacity without making at least 20 hours per licensed channel per week of EBS educational usage, provided that the licensee maintains the unbridgeable right to recapture on one months' advance notice such capacity as it requires over and above the 5% reservation to make at least 20 hours per channel per week of EBS educational usage.

(2) The licensee may shift its requisite EBS educational usage onto fewer than its authorized number of channels, via channel mapping or channel loading technology, and may shift its requisite EBS educational usage onto channels not authorized to it, but which are included in the wireless system of which it is a part ("channel shifting"), so that it can enter into a spectrum leasing arrangement involving full-time channel capacity on its EBS station, associated EBS booster stations, and/or EBS response stations and associated response station hubs, subject to the condition that it provide a total average of at least 20 hours per licensed channel per week of EBS educational usage. The use of channel mapping, channel loading, and/or channel shifting consistent with the Rules shall not be considered adversely to the EBS licensee in seeking a license renewal. In addition, an EBS entity receiving interference protection will continue to receive such protection if it elects to swap channels with another EBS or BRS station.

(c) All spectrum leasing arrangements involving EBS spectrum must afford the EBS licensee an

opportunity to purchase or to lease EBS equipment in the event that the spectrum leasing arrangement is terminated as a result of action by the spectrum lessee.

(d) All leases of current EBS spectrum entered into prior to **[insert effective date of this rule]** and in compliance with leasing rules formerly contained in Part 74 of this chapter may continue in force and effect, notwithstanding any inconsistency between such leases and the rules applicable to spectrum leasing arrangements set forth in this chapter. Such leases entered into pursuant to the former Part 74 rules may be renewed and assigned in accordance with the terms of such lease. All spectrum leasing arrangements leases entered into after **[insert effective date of this rule]**, pursuant to the rules set forth in Parts 1 and 27, must comply with the rules in those parts.

Technical Standards

§ 27.1220 Transmission standards.

The width of a channel in the LBS and UBS is 5.5 MHz, with the exception of BRS channels 1 and 2 which are 6.0 MHz. The width of all channels in the MBS is 6 MHz. However, the licensee may subchannelize its authorized bandwidth, provided that digital modulation is employed and the aggregate power does not exceed the authorized power for the channel. The licensee may also, jointly with other licensees, transmit utilizing bandwidth in excess of its authorized bandwidth, provided that digital modulation is employed, all power spectral density requirements set forth in this part are met and the out-of-band emissions restrictions set forth in Section 27.53 are met at the edges of the channels employed.

§ 27.1221 Interference Protection.

Interference protection will be afforded to BRS on a station by station basis based on the heights of the stations in the LBS and UBS and also on height benchmarking, although the heights of antennas utilized are not restricted.

(a) *Height Benchmarking.* Height benchmarking is defined for pairs of base stations, one in each of two neighboring service areas. The height benchmark for a particular station in a service area relative to a base station in an adjacent service area is the distance-squared between the station and the GSA service area boundary measured along the radial between the respective stations, divided by 17. That is, the height benchmark is $h_b = D^2/17$. Interference protection will be afforded on a station by station basis based on the actual antenna height above average terrain (HAAT) and this height benchmark.

(b) *Protection for a Receiving-Antenna not Exceeding the Height Benchmark:* A base station receive-antenna with an HAAT less than or equal to the height benchmark relative to a neighbor's transmitting base station will be protected if that station's HAAT exceeds its height benchmark. That station is required to take such measures to limit the undesired signal at the receiving base station to -107dBm or less.

(c) *No Protection from a Transmitting-Antenna not Exceeding the Height Benchmark:* A base station transmitting-antenna with an HAAT less than or equal to the height benchmark relative to a neighbor's receiving antenna is not required to protect that receiving station, regardless of the HAAT of that station.

(d) *No Protection for a Receiving-Antenna Exceeding the Height Benchmark:* A base station transmitting-antenna with an HAAT greater than the height benchmark relative to a neighbor's receiving antenna is not required to protect that receiving antenna if its HAAT is greater than its height benchmark.

§ 27.1222 Operations in the 2568-2572 and 2614-2618 bands.

All operations in the 2568-2572 and 2614-2618 MHz bands shall be secondary to adjacent-channel operations. Stations operating in the 2568-2572 and 2614-2618 MHz must not cause interference to licensees in operation in the LBS, MBS, and UBS and must accept any interference from any station operating in the LBS, MBS, and UBS in compliance with the rules established in this subpart. Stations operating in the 2568-2572 and 2614-2618 bands may cause interference to stations in operation in the LBS, MBS, and UBS if the affected licensees consent to such interference.

Policies Governing the Transition of the 2500-2690 MHz Band for BRS and EBS.**§ 27.1230 Conversion of the 2500-2690 MHz band.**

BRS and EBS licensees in the 2500-2690 MHz band on the pre-transition A-I Channels will be transitioned from the frequencies assigned to them under § 27.5(i)(1) to the frequencies assigned to them under § 27.5(i)(2) of this subpart. The transition, which will be undertaken by one or more proponent(s), will occur in the following five phases: initiating the transition process (see § 27.1231), planning the transition (see § 27.1232), reimbursing transition costs (see 27.1233), terminating existing operations in transitioned markets that do not comport with § 27.5(i)(2) of this subpart (see § 27.1234), and filing the post-transition notification (see § 27.1235).

§ 27.1231 Initiating the transition.

(a) The transition will occur by MEA. MEAs are based on the U.S. Department of Commerce's 172 Economic Area (EAs). There are 52 MEAs composed of one or more EAs. Additionally, there are three EA-like areas: Guam and Northern Mariana Islands; Puerto Rico and the U.S. Virgin Islands; and American Samoa, which will also be transitioned to the band plan in Section 27.5(i)(2) of this subpart. The MEA associated with the Gulf of Mexico will not be transitioned. MEAs are identified in the Table to § 27.6(a) of this part.

(b) Sections 27.1231-27.1235 apply only to transitions initiated by a proponent(s) within 3 years of (INSERT DATE 30 DAYS AFTER PUBLICATION IN FEDERAL REGISTER).

(c) When a proponent(s) is a Basic Trading Area (BTA) BRS licensee that is located in more than one MEA, the proponent(s) may elect to transition only one MEA or may elect to transition two or more MEAs that overlap the proponent(s)'s BTA.

(d) A proponent(s) may be an EBS or BRS licensee or an EBS lessee. To initiate a transition, a proponent(s) must submit the following information to the Commission at the Office of the Secretary in Washington, DC:

- (1) a list of the MEA(s) that the proponent(s) is transitioning;
- (2) a list by call sign of all of the BRS and EBS licensees in the MEA(s) that are being transitioned;
- (3) a statement indicating that the engineering analysis to transition all of the BRS and EBS licensees in the MEA(s) has been completed;

(4) a statement indicating when the transition will be completed;

(5) a statement indicating that an agreement has been concluded with the proponent(s) of the adjoining or adjacent MEA(s) when the engineering analysis indicates that a licensee or licensees in an adjacent or adjoining MEA must be transitioned to avoid interference to licensees in the MEA being transitioned, or in lieu of an agreement, the proponent(s) may provide an alternative means of transitioning the licensees in an adjacent or adjoining MEA;

(6) a statement indicating that an agreement has been concluded with another proponent(s) on how a MEA will be transitioned when there are two or more proponents seeking to transition the same MEA and a statement that identifies the specific portion of the MEA each proponent will be responsible for transitioning; and

(7) a certification that the proponent or joint proponents have the funds available to pay the reasonable expected costs of the transition based on the information contained in the Pre-Transition Data Request (see paragraph (f) of this section).

(e) A proponent(s) may, at its own discretion, withdraw from transitioning a MEA(s) by amending the information submitted to the Commission under paragraph (d) of this section and notifying all affected BRS and EBS licensees in the MEA(s).

(f) Pre-transition data request. To assist a potential proponent(s) in assessing whether to transition a MEA(s), a proponent(s) must send a Pre-transition data request to each EBS and BRS licensee in the MEA the proponent(s) seeks to transition. The proponent(s) shall include its full name, postal mailing address, contact person, e-mail address, and phone and fax numbers. The proponent(s) must request EBS and BRS licensees within a MEA to provide the following information to the potential proponent(s):

(1) The location (by street address and by geographic coordinates) of every constructed EBS receive site that, as of the date of receipt of the Pre-Transition Data Request, is entitled to a replacement downconverter (see § 27.1233(a) of this subpart). The response must:

(i) Specify whether the downconverting antenna is mounted on a structure attached to the building or on a free-standing structure;

(ii) Specify the approximate height above ground level of the downconverting antenna;

(iii) Specify, if known, the adjacent channel D/U ratio that can be tolerated by any receiver(s) at the receive site; and

(2) The number and identification of EBS video programming or data transmission tracks the EBS licensee is entitled to receive in the MBS and whether the EBS licensee will accept fewer tracks in the MBS (see § 27.1233(b) of this subpart).

(g) *The Transition Notice.* The proponent(s) must send a Transition Notice to all BRS and EBS licensees in the MEA(s) being transitioned. The proponent(s) must include the following information in the Transition Notice:

- (1) the proponent(s)'s full name; postal mailing address, contact person, e-mail address, and phone and fax numbers
- (2) the identification of the BRS and EBS licensees that will be transitioned;
- (3) copies of the most recent response to the Pre-Transition Data Request for each participant in the process; and
- (4) a certification that the proponent(s) has the funds available to pay the reasonably expected costs of the transition based on the information in the Pre-Transition Data Request.

§ 27.1232 Planning the Transition.

(a) *The Transition Planning Period.* The Transition Planning Period is a 90-day period that commences on the day after the proponent(s) file the Initiation Plan with the Commission.

(b) *The Transition Plan.* The proponent(s) must provide to each BRS and EBS licensee within a MEA, a Transition Plan no later than 30 days prior to the conclusion of the Transition Planning Period.

- (1) The Transition Plan must:
 - (i) identify the call signs of the stations that are transitioning;
 - (ii) identify the specific channels that each licensee will receive following the transition;
 - (iii) identify the receive sites at which replacement downconverters will be installed (see § 27.1233(a) of this subpart);
 - (iv) identify the video programming and data transmission tracks that will be migrated to the MBS and provide for the MBS channels to be authorized to operate with transmission parameters that are substantially similar to those of the licensee's operation prior to transition (see § 27.1233(b) of this subpart);
 - (v) identify the technical configuration of the MBS facilities;
 - (vi) identify the approximate time line for effectuating the transition, which, unless dispute resolution procedures are used, may not exceed 18 months from the conclusion of the Transition Planning Period;
 - (vii) provide for the establishment of an escrow or other appropriate mechanism for ensuring completion of the transition in accordance with the Transition Plan.

(2) The Transition Plan may provide for interruptions of EBS transmissions, so long as those interruptions are limited to a period of less than seven days at any reception site. The proponent(s) must coordinate with each EBS licensee to minimize the extent of any disruption.

(3) The Transition Plan may provide for the shifting of an EBS licensee's program to alternative channels. Such shifting may not be considered an interruption, if the EBS licensee's receive sites are

equipped to receive and internally distribute the channel to which the programming is shifted.

(4) The Transition Plan may provide for the installation of an appropriate filter on an MBS transmitter if the proponent(s) determines that the installation of a filter will mitigate interference from transmissions in the MBS to operations outside the MBS.

(d) *Counterproposals.* No later than 10 days before the conclusion of the Transition Planning Period, affected BRS and EBS licensees may submit a counterproposal to the proponent(s) if they believe that the Transition Plan is unreasonable. The proponent(s) may:

(1) accept the counterproposal, modify the Transition Plan accordingly, and send the modified Transition Plan to all EBS and BRS licensees in the MEA;

(2) invoke dispute resolution procedures for a determination of whether the Transition Plan is reasonable and take no action until a determination of reasonableness is made; or

(3) invoke dispute resolution procedures for a determination of whether the Transition Plan is reasonable, but may implement the transition immediately.

(e) *Safe harbors.* An offer by a proponent(s) shall be reasonable if it meets one of the following safe harbors:

(1) *Safe harbor #1.* This safe harbor applies when the default high-power channel assigned to each channel group is authorized to operate after the transition with the same transmission parameters (coordinates, antenna pattern, height of center radiation, EIRP) as the downstream facilities before the transition. If the proponent(s) does not propose a change in the geographic coordinates of the facilities (other than as necessary to conform the actual location with the Commission's Antenna Survey Branch database), the proponent may also propose the following to the extent consistent with this subpart:

(i) An increase in the height of the center of radiation of the transmission antenna or a decrease in such height of no more than 8 meters (provided that such change does not result in an increase in antenna support structure lease costs to the EBS licensee and the consent of the owner of the antenna support structure is obtained).

(ii) A change in the EIRP of the transmission system of up to 1.5 dB in any direction.

(iii) Digitization, precision frequency offset, or other upgrades to the EBS transmission or reception systems that allow the proponent(s) to invoke more advantageous interference protection requirements applicable to upgraded systems.

(2) *Safe harbor # 2.* This safe harbor applies when an EBS licensee has channel-shifted its single video programming or data transmission track to spectrum licensed to another licensee. Under Section 27.5(i)(2) of this subpart, that track must be on the high-power channel licensed to the EBS licensee upon completion of the transition. For example, before the transition, an A Group licensee might have shifted its EBS video programming to channel C1. If one of the pre-transition A Group channels is licensed with technical parameters substantially similar to those of pre-transition channel C1, the Transition Plan may provide for high-power channel A4 to be licensed with the same technical parameters as the pre-transition channel C1. However, if the pre-transition A Group channels are licensed to operate with technical parameters materially different from those of pre-transition channel

C1, the proponent(s) may:

(i) Arrange a channel swap with the licensee of the C Group so that the A Group licensee will receive high-power channel C4 (which will automatically be licensed with the same transmission parameters as the pre-transition channel C1) in exchange for channel A4.

(ii) Arrange for high-power channel A4 to operate with transmission parameters substantially similar to those of the pre-transition channel C1 (see paragraph (e)(1) of this section).

§ 27.1233 Reimbursement costs of transitioning.

(a) *Replacement downconverters.* The proponent(s) must install at every eligible EBS receive site a downconverter designed to minimize the reception of signals from outside the MBS.

(1) An EBS receive site is eligible to be replaced if:

(i) a reception system was installed at that site on or before the date the EBS licensee receives its Pre-Transition Data Request (see § 27.1231(f) of this subpart);

(ii) the reception system was installed by or at the direction of the EBS licensee;

(iii) the reception system receives EBS programming under § 27.1203(b) and (c) of this subpart or is located at a cable television system headend and the cable system relays educational or instructional programming for an EBS licensee; and

(iv) it is within the licensee's 35-mile radius GSA.

(2) Replacement downconverters must meet the following minimum technical requirements:

(i) The downconverter's input frequency range (the "in-band frequencies") must be 2572 MHz to 2614 MHz and output frequency range must be 294 MHz to 336 MHz;

(ii) The downconversion process must not invert frequencies;

(iii) The nominal gain of the downconverter must be 32 dB, or greater;

(iv) The downconverter must include filtering prior to the first amplifier that attenuates frequencies below 2500 MHz and above 2705 MHz by at least 25 dB;

(v) The downconverter must have an out-of-band input 3rd order intercept point (input IP3) of at least +9 dBm, where out-of-band is defined as all frequencies below 2566 MHz and all frequencies above 2620 MHz;

(vi) The downconverter must have a typical noise figure of no greater than 3.5 dB and a worst case noise figure of no greater than 4.5 dB across all in-band frequencies and across its entire intended operating temperature range;

(vii) The downconverter must not introduce a delta group delay of more than 20 nanoseconds for digital operations or 100 nanoseconds for analog operations over any individual six megahertz MBS

channel.

(b) *Migration of Video Programming and Data Transmission Track*

(1) The proponent(s) must provide, at its cost, to each EBS licensee that intends to continue downstream high-power, high-site educational video programming or data transmission services, with one programming track on the MBS channels for each EBS video or data transmission track the licensee is transmitting on a simultaneous basis before the transition.

(i) To be eligible for migration, a program track must contain EBS programming that complies with § 27.1203(b) and (c) of this subpart.

(ii) The proponent(s) must pay only the costs of migrating programming tracks being transmitted on December 31, 2002 or within six months prior thereto.

(2) The proponent(s) must migrate each eligible programming track to spectrum in the MBS that will be licensed to the affected licensee at the conclusion of the transition.

(3) After the transition, the desired-to-undesired signal level ratio at each of the receive sites securing a replacement downconverter must satisfy the following criteria:

(i) *Cochannel D/U Ratio.*

(A) When the post-transition desired signal is transmitted using analog modulation, the actual cochannel D/U ratio measured at the output of the reception antenna must be at least the lesser of 45 dB or the actual pre-transmission D/U ratio less 1.5 dB.

(B) When the post-transition desired signal will be transmitted using digital modulation, the actual cochannel D/U ratio measured at the output of the reception antenna must be at least the lesser of 32 dB or the pre-transition D/U ratio less 1.5 dB.

(C) Where in implementing the Transition Plan, the proponent(s) deploys precise frequency offset in an analog system, the minimum cochannel D/U ratio is reduced to 38 dB, provided that the transmitters have or are upgraded pursuant to the Transition Plan to have the appropriate "plus," "zero," or "minus" 10,010 Hertz precision frequency offset with a ± 3 Hertz (or better) stability.

(ii) *Adjacent Channel D/U Ratio.* The actual adjacent channel D/U must equal or exceed the lesser of 0 dB or the actual pre-transmission D/U ratio. However, in the event that the receive site uses receivers or is upgraded by the proponent(s) as part of the Transition Plan to use receivers that can tolerate negative adjacent channel D/U ratios, the actual adjacent channel D/U ratio at such receive site must equal or exceed such negative adjacent channel D/U ratio.

(c) *BRS Costs.* BRS licensees must pay their own transition costs. BRS licensees in the LBS or UBS must reimburse the proponent(s) a pro rata share of the cost of transitioning the facilities they use to provide commercial service, either directly or through a lease agreement with an EBS licensee.

§ 27.1234 Terminating existing operations in transitioned markets.

Licensees may discontinue operations during the transition.

§ 27.1235 Post-transition notification.

(a) The proponent(s) and all affected licensees must jointly notify the Commission at the Office of the Secretary, Washington DC, that the Transition Plan has been fully implemented.

(1) The notification must provide the identification of the licensees that have transitioned to the band plan in § 27.5(i)(2) this subpart and the specific frequencies on which each licensee is operating.

(2) For each station in the MBS, the notification must provide the following information:

- (i) the station coordinates,
- (ii) the make and model of each antenna,
- (iii) the horizontal and vertical pattern of the antenna;
- (iv) EIRP of the main lobe;
- (v) orientation;
- (vi) height of antenna center of radiation;
- (vii) transmitter output power;
- (viii) all line and combiner losses.

(3) The proponent(s) must provide copies of the post-transition notice to all parties of the transition.

PART 73--RADIO BROADCAST SERVICES

34. The authority citation for Part 73 continues to read as follows:

AUTHORITY: 47 U.S.C. 154, 303, 334 and 336.

35. Section 73.1010(e) is amended by deleting paragraph 7 and redesignating paragraph 8 as paragraph 7.

36. The table at Section 73.3500(a) is amended by deleting the references to Form numbers 330, 330-L, and 330-R.

37. Section 73.3533(a) is amended by deleting paragraph 4 and redesignating paragraphs 5 through 8 as paragraphs 4 through 7.

38. Section 73.3534 is deleted and reserved.

39. Section 73.3536(b) is amended by deleting paragraph 4 and redesignating paragraphs 5 through 7 as paragraphs 4 through 6.

40. Section 73.5000 is amended by revising paragraph (a) to read as follows:

(a) Mutually exclusive applications for new facilities and for major changes to existing facilities in the following broadcast services are subject to competitive bidding: AM; FM; FM translator; analog television; low-power television; television translator; and Class A television. Mutually exclusive applications for minor modifications of Class A television and television broadcast are also subject to competitive bidding. The general competitive bidding procedures set forth in part 1, subpart Q of this chapter will apply unless otherwise provided in part 73 or part 74 of this chapter.

* * * * *

41. Section 73.5002 is amended by revising paragraphs (a), (b), (c), and (d) to read as follows:

§ 73.5002 Application and certification procedures; return of mutually exclusive applications not subject to competitive bidding procedures; prohibition of collusion.

a) Prior to any broadcast service auction, the Commission will issue a public notice announcing the upcoming auction and specifying the period during which all applicants seeking to participate in an auction, and all applicants for noncommercial educational broadcast stations, as described in 47 U.S.C. 397(6), on non-reserved channels, must file their applications for new broadcast facilities or for major changes to existing facilities. Broadcast service applications for new facilities or for major modifications will be accepted only during these specified periods. This initial and other public notices will contain information about the completion and submission of applications to participate in the broadcast auction, and applications for noncommercial educational broadcast stations, as described in 47 U.S.C. 397(6), on non-reserved channels, as well as any materials that must accompany the applications, and any filing fee that must accompany the applications or any upfront payments that will need to be submitted. Such public notices will also, in the event mutually exclusive applications are filed for broadcast construction permits that must be resolved through competitive bidding, contain information about the method of competitive bidding to be used and more detailed instructions on submitting bids and otherwise participating in the auction. In the event applications are submitted that are not mutually exclusive with any other application in the same service, or in the event that any applications that are submitted that had been mutually exclusive with other applications in the same service are resolved as a result of the dismissal or modification of any applications, the non-mutually exclusive applications will be identified by public notice and will not be subject to auction.

(b) To participate in broadcast service auctions, or to apply for a noncommercial educational station, as described in 47 U.S.C. 397(6), on a non-reserved channel, all applicants must timely submit short-form applications (FCC Form 175), along with all required certifications, information and exhibits, pursuant to the provisions of § 1.2105(a) of this chapter and any Commission public notices. So determinations of mutual exclusivity for auction purposes can be made, applicants for non-table broadcast services must also submit the engineering data contained in the appropriate FCC form (FCC Form 301, FCC Form 346, or FCC Form 349). Beginning January 1, 1999, all short-form applications must be filed electronically. If any application for a noncommercial educational broadcast station, as described in 47 U.S.C. 397(6), is

mutually exclusive with applications for commercial broadcast stations, and the applicants that have the opportunity to resolve the mutual exclusivity pursuant to paragraph (c) and (d) of this section fail to do so, the application for noncommercial educational broadcast station, as described in 47 U.S.C. 397(6), will be returned as unacceptable for filing, and the remaining applications for commercial broadcast stations will be processed in accordance with competitive bidding procedures.

(c) Applicants in all broadcast service auctions, and applicants for noncommercial educational stations, as described in 47 U.S.C. 397(6), on non-reserved channels will be subject to the provisions of § 1.2105(b) of this chapter regarding the modification and dismissal of their short-form applications. Notwithstanding the general applicability of § 1.2105(b) of this chapter to broadcast auctions, and applicants for noncommercial educational stations, as described in 47 U.S.C. 397(6), on non-reserved channels, the following applicants will be permitted to resolve their mutual exclusivities by making amendments to their engineering submissions following the filing of their short-form applications:

- (1) applicants for all broadcast services who file major modification applications that are mutually exclusive with each other;
- (2) applicants for all broadcast services who file major modification and new station applications that are mutually exclusive with each other; or
- (3) applicants for the secondary broadcast services who file applications for new stations that are mutually exclusive with each other.

(d) The prohibition of collusion set forth in § 1.2105(c) of this chapter, which becomes effective upon the filing of short-form applications, shall apply to all broadcast service auctions. Notwithstanding the general applicability of § 1.2105(c) of this chapter to broadcast auctions, the following applicants will be permitted to resolve their mutual exclusivities by means of engineering solutions or settlements during a limited period after the filing of short-form applications, as further specified by Commission public notices:

- (1) applicants for all broadcast services who file major modification applications that are mutually exclusive with each other;
- (2) applicants for all broadcast services who file major modification and new station applications that are mutually exclusive with each other; or
- (3) applicants for the secondary broadcast services who file applications for new stations that are mutually exclusive with each other.

* * * * *

42. Section 73.5003 is revised to read as follows:

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§ 73.5003 Submission of full payments.

If a winning bidder fails to pay the balance of its winning bid in a lump sum by the applicable deadline as specified by the Commission, it will be allowed to make payment within ten (10) business days after the

payment deadline, provided that it also pays a late fee equal to five (5) percent of the amount due. Broadcast construction permits licenses will be granted by the Commission following the receipt of full payment.

43. Section 73.5005 is amended by revising paragraph (a) to read as follows:

§ 73.5005 Filing of long-form applications.

(a) Within thirty (30) days following the close of bidding and notification to the winning bidders, each winning bidder must submit an appropriate long-form application (FCC Form 301, FCC Form 346, or FCC Form 349) for each construction permit or license for which it was the high bidder. Long-form applications filed by winning bidders shall include the exhibits required by § 1.2107(d) of this chapter (concerning any bidding consortia or joint bidding arrangements); § 1.2110(j) of this chapter (concerning designated entity status, if applicable); and § 1.2112 of this chapter (concerning disclosure of ownership and real party in interest information, and, if applicable, disclosure of gross revenue information for small business applicants).

* * * * *

44. Section 73.5006 is amended by revising paragraphs (a), (b), (c) and (d) to read as follows:

§ 73.5006 Filing of petitions to deny against long-form applications.

a) As set forth in 47 CFR 1.2108, petitions to deny may be filed against the long-form applications filed by winning bidders in broadcast service auctions and against the long-form applications filed by applicants whose short-form applications were not mutually exclusive with any other applicant, or whose short-form applications were mutually exclusive only with one or more short-form applications for a noncommercial educational broadcast station, as described in 47 U.S.C. 397(6).

(b) Within ten (10) days following the issuance of a public notice announcing that a long-form application for an AM, FM or television construction permit has been accepted for filing, petitions to deny that application may be filed. Within fifteen (15) days following the issuance of a public notice announcing that a long-form application for a low-power television, television translator or FM translator construction permit has been accepted for filing, petitions to deny that application may be filed. Any such petitions must contain allegations of fact supported by affidavit of a person or persons with personal knowledge thereof.

(c) An applicant may file an opposition to any petition to deny, and the petitioner a reply to such opposition. Allegations of fact or denials thereof must be supported by affidavit of a person or persons with personal knowledge thereof. In the AM, FM and television broadcast services, the time for filing such oppositions shall be five (5) days from the filing date for petitions to deny, and the time for filing replies shall be five (5) days from the filing date for oppositions. In the low-power television, television translator and FM translator broadcast services, the time for filing such oppositions shall be fifteen (15) days from the filing date for petitions to deny, and the time for filing replies shall be ten (10) days from the filing date for oppositions.