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

In the Matter of	)	
	)	
Amendment of Parts 1, 21, 73, 74 and 101 of the Commission's Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands	)	WT Docket No. 03-66 RM-10586
	)	
Part 1 of the Commission's Rules - Further Competitive Bidding Procedures	)	WT Docket No. 03-67
	)	
Amendment of Parts 21 and 74 to Enable Multipoint Distribution Service and the Instructional Television Fixed Service Amendment of Parts 21 and 74 to Engage in Fixed Two-Way Transmissions	)	MM Docket No. 97-217
	)	
Amendment of Parts 21 and 74 of the Commission's Rules With Regard to Licensing in the Multipoint Distribution Service and in the Instructional Television Fixed Service for the Gulf of Mexico	)	WT Docket No. 02-68 RM-9718
	)	
Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets	)	WT Docket No. 00-230

REPORT AND ORDER AND FURTHER NOTICE OF PROPOSED RULEMAKING

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By the Commission: Chairman Powell and Commissioners Abernathy, Copps, Martin, and Adelstein issuing separate statements.

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I. INTRODUCTION

1. In this *Report and Order (R&O)*, we take important steps to transform our rules and policies governing the licensing of the Instructional Television Fixed Service (ITFS), the Multipoint Distribution Service (MDS), and the Multichannel Multipoint Distribution Service (MMDS) (collectively, the Services) in the 2500-2690 MHz band.[1] The actions taken in this order initiate a fundamental restructuring of the band that will provide both existing ITFS and MDS licensees and potential new entrants with greatly enhanced flexibility in order to encourage the highest and best use of spectrum domestically and internationally, and the growth and rapid deployment of innovative and efficient communications technologies and services.[2] By these actions, we make significant progress towards the goal of providing all Americans with access to ubiquitous wireless broadband connections, regardless of their location.[3]

2. A hallmark of our national communications policy is to encourage the provision of new technologies and services to the public.[4] The actions taken herein will foster the development of the 2500-

[1] The terms MDS and MMDS are often used interchangeably. The Commission coined the term "MDS" at a time when it was making only two channels available for the service, at 2150-2162 MHz. The Commission began using the term "MMDS" when formulating rules making additional channels for the service available in the 2500-2690 MHz band. For the purposes of this *Report and Order and Further Notice of Proposed Rulemaking (R&O and FNPRM as appropriate)*, we will use the term "MDS" to signify both services.

[2] Federal Communications Commission, Strategic Plan FY 2003-FY 2008 at 5 (2002) (*Strategic Plan*).

[3] *Id.* at 14.

[4] See 47 U.S.C. §§ 157(a), 309(j)(4)(C)(iii).

2690 MHz band by enabling licensees to migrate to more technologically and economically efficient uses of the spectrum. The record in this proceeding overwhelmingly supports our tentative conclusion that providing 2500-2690 MHz licensees with additional flexibility of use serves the public interest and allows licensees to provide new and innovative services, consistent with the requirements of Section 303(y) of the Communications Act.[5]

3. In recent years, there has been steadily increasing demand for mobile telephone and mobile data services. In 2002, the mobile telephony sector generated more than $76 billion in revenues, increased subscribership from 128.5 million to 141.8 million (from the prior year), and produced a nationwide penetration rate of roughly forty-nine percent.[6] Estimates of the number of mobile Internet users at the end of 2001 ranged from approximately eight to ten million, up from 2 to 2.5 million at the end of 2000.[7] Also in recent years, the MDS industry has invested several billion dollars to develop broadband fixed wireless data systems in this band, including high-speed access to the Internet for residential customers, small and medium businesses, and educational institutions.[8] Such systems offer a significant opportunity to provide competition to cable and digital subscriber line (DSL) services in the provision of broadband services in all areas.[9] Additionally, these spectrum-based services will improve the ability of educators to serve America's students thereby facilitating educators' use of our national spectrum resource. This accomplishes our goal of ensuring that educational and medical institutions continue to have access to spectrum.

4. Our actions today also respond to proposals from the ITFS and MDS industries for major revision of current regulations so that these services will no longer be hindered by outdated and overly restrictive regulation. The restructured band plan we adopt will provide ITFS and MDS licensees with contiguous spectrum to deploy both existing and emerging technologies, and provides for both high and low-power operations in the band, thereby preserving the opportunity for incumbents to maintain existing operations. We also adopt a transition mechanism that will enable incumbents on a region-by-region basis to negotiate the transition to new spectrum assignments in the restructured band plan, with safeguards to ensure that all relocating incumbents are treated equitably. We also propose an alternative market-based transition mechanism that would take effect after three years for any areas where a negotiated transition has not occurred. We will be monitoring the transition closely through the proponents' filing of Initiation

[5] 47 U.S.C. § 303(y). *See, e.g.,* Ad Hoc MMDS Licensee Consortium (AHMLC) Comments at 3; ArrayComm Comments at 1; School Board of Broward County (SBBC) Comments at 1; Cellular Telecommunications & Internet Association (CTIA) Comments at 3; Information Technology Industry Council (ITIC) Comments at 2-3.

[6] Federal Communications Commission, *Eighth Annual CMRS Competition Report* (FCC 03-150, rel. Jul. 14, 2003) at 11.

[7] *Id.*

[8] A Proposal for Revising the MDS and ITFS Regulatory Regime, submitted by the Wireless Communications Association International, Inc. (WCA), the National ITFS Association (NIA) and the Catholic Television Network (CTN), RM-10586 (filed Oct. 7, 2002) at 4 (Coalition Proposal or White Paper). WCA is the trade association of the wireless broadband industry. NIA is a non-profit, professional organization of ITFS licensees, applicants and others interested in the ITFS. CTN is an association of Roman Catholic archdioceses and dioceses that operate many of the largest parochial school systems in the United States. These entities represent that the proposals contained in the paper reflect a consensus among the organizations concerning rule changes for the 2500-2690 MHz band. *See* Coalition Proposal at 1, n.1.

[9] Spectrum Study of 2500-2690 MHz Band: The Potential for Accommodating Third Generation Mobile Systems, (rel. March 30, 2001) at 13 (*3G Final Report)*.

Plans with the Commission and notifications of the completion of the transition in given markets, as well as through reports prepared by the Wireless Telecommunications Bureau (Bureau) for the Commission.

5. In addition to the broader objectives described above, our decisions in this proceeding have also been guided by the desire to accomplish these additional spectrum management objectives: (1) promoting availability of broadband to all Americans, including broadband technologies for educators; (2) encouraging increased competition in wireless broadband through the creation of new opportunities for new entrants; (3) promotion of the economic viability of services in this band by ensuring that the spectrum is as fungible, tradable, and marketable as possible; (4) facilitating the highest valued use of radio licenses; (5) facilitating speed of transition and deployment in the band; (6) providing incumbents with a reasonable opportunity to continue their current uses of the spectrum; and (7) the continued promotion of spectrum-based education services.

II. EXECUTIVE SUMMARY

6. In this *Report and Order*, we:

- Adopt a band plan that restructures the 2500-2690 MHz band into upper and lower-band segments for low-power operations (UBS and LBS, respectively), and a mid-band segment (MBS) for high-power operations. By grouping high and low-power spectrum uses into separate portions of the band, this band plan creates opportunities for spectrum-based systems or devices to migrate to compatible bands based on marketplace forces, and reduces the likelihood of interference caused by incompatible uses. The new band plan also provides new incentives for the development of low-power cellularized broadband uses of the 2500-2690 MHz band, which have been thwarted by the legacy band structure.

- Designate the 2495-2500 MHz band for use in connection with the 2500-2690 MHz band.

- Rename the MDS service as the "Broadband Radio Service" (BRS). This new designation connotes a more accurate description of the services we anticipate will develop in the band.

- Rename the ITFS service as the "Educational Broadband Service" (EBS), which more accurately describes the kinds of the services that we anticipate will develop in the band.

- Implement geographic area licensing for all licensees in the band. This will give licensees increased flexibility while greatly reducing administrative burdens on both licensees and the Commission

- Adopt a transition mechanism that enables incumbent licensees to develop regional plans for moving to new spectrum assignments in the restructured band plan. Under this mechanism, licensees have a three-year period during which they can initiate the transition process in their regional area and negotiate a transition plan with other regional licensees. Transition plans must conform to certain safeguards to ensure a smooth transition and equitable treatment of incumbents.

- Consolidate licensing and service rules for the Educational Broadband Service and Broadband Radio Services. This action promotes regulatory parity, and clarifies and stabilizes the regulatory treatment of similar spectrum-based services.

- Allow spectrum leasing for BRS and EBS under our secondary market spectrum leasing policies and procedures.
- Retain eligibility restrictions for licensing in the EBS band, while removing all non-statutory eligibility restrictions applicable to cable and DSL operators for the BRS.
- Set the signal strength limits for the low-power bands at the boundaries of the geographic service areas to 47 dBμV/m.
- Restrict the transmitter output power of response stations to 2.0 watts.
- Modify emission limits for stations that would operate on the LBS and UBS channels and measure out-of-band emissions.
- Provide licensees with the flexibility to employ the technologies of their choice in the band.
- Refrain from allowing high-power unlicensed operations in the 2500-2690 MHz band, but allow unlicensed operation under our existing Part 15 rules in the 2655-2690 MHz band.
- Apply the Part 1 Wireless Telecommunications Bureau rules to the BRS/EBS spectrum.
- Dismiss pending mutually exclusive applications for new ITFS stations.
- Consolidate the new rules for the band into Part 27.
- Take other actions to streamline the rules and eliminate unnecessary regulatory burdens.

7. In MM Docket No. 97-217, we address a minor issue concerning response stations that are not engaged in communications with their associated hubs to restrict their field strengths.[10]

8. In the Further *Notice of Proposed Rulemaking* (*FNPRM*), we seek comment on alternative methods to transition licensees to the extent that licensee-negotiated transitions do not occur within the three-year transition period. Specifically, we seek comment on utilizing a system whereby existing licenses would be exchanged for a tradable instrument. Upon completion of such exchange, the entire band will be auctioned, and entities can utilize these tradable instruments in this or any other Commission auction. We seek comment on other transition methods that can be utilized to transition licensees to the new band plan. We also seek further comment on issues relating to the Gulf of Mexico service area, performance requirements for licensees in the band, grandfathered ITFS stations on the E and F channel groups, limitations on the holdings of ITFS stations, the "wireless cable" exception to the ITFS eligibility rules, issues relating to regulatory fees, methods of streamlining our review of transactions involving these services, and continuing our review of rules relating to these services.

III. BACKGROUND

[10] Amendment of Parts 1, 21 and 74 to Enable Multipoint Distribution Service and Instructional Television Fixed Service Licensees to Engage in Fixed Two-Way Transmissions, MM Docket No. 97-217, *Report and Order on Further Reconsideration and Further Notice of Proposed Rulemaking*, 15 FCC Rcd 14566 (2000) (*Two-Way FNPRM*).

A. Establishment and Evolution of the Services

9. The Commission has sought for several decades to develop regulatory policies in the 2500-2690 MHz band that would tap this band's great potential to host a variety of services. As discussed more fully below, however, the regulatory history of the band has been marked by changing and sometimes conflicting policy goals, which have tended to suppress investment, innovation, and responsiveness to changes in wireless technology and demand for services. In light of this history, our actions today represent a major step towards unleashing the unrealized potential of this spectrum. Below, we summarize the history of the establishment and evolution of this band.

10. In 1963, the Commission established ITFS in the 2500-2690 MHz band,[11] envisioning that it would be used for transmission of instructional material to accredited public and private schools, colleges, and universities for the formal education of students.[12] The Commission also permitted ITFS licensees to use the channels to transmit cultural and entertainment material to educational institutions, and to transmit instructional material to non-educational institutions such as hospitals, nursing homes, training centers, clinics, rehabilitation centers, commercial and industrial establishments, and professional groups. ITFS licensees were also allowed to use their systems to perform related services directly concerned with formal or informal instruction and training, and to carry administrative traffic when not being used for educational purposes.[13]

11. In 1974, the Commission established MDS as a new common carrier service and allotted the 2150-2160 MHz band for such use.[14] The Commission anticipated that the MDS spectrum would be used for wireless cable, a common carrier service for distribution of television programming from a central location to fixed points selected by the common carrier's subscribers.[15] The Commission allotted two 6 megahertz channels (2150-2162 MHz) in fifty of the largest metropolitan areas (referred to as MDS Channel Nos. 1 and 2).[16] In the rest of the country, only 10 megahertz of spectrum was allotted to MDS in this band —namely, Channel No. 1 (2150-2156 MHz) and Channel No. 2A (2156-2160 MHz).[17]

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[11] *See* Educational Television, Docket No. 14744, *Report and Order*, 39 FCC 846 (1963) (*MDS R&O*), *recon. denied*, 39 FCC 873 (1964) (*ETV Decision*).

[12] *See* Amendment of the Commission's Rules With Regard to the Instructional Television Fixed Service, the Multipoint Distribution Service, and the Private Operational Fixed Microwave Service; and Applications for an Experimental Station and Establishment of Multi-Channel Systems, *Report and Order*, 48 Fed. Reg. 33873, 33875 ¶ 9 (1983) (*1983 R&O*) *citing ETV Decision*, 39 FCC 846, 853 ¶ 25.

[13] *Id*.

[14] Amendment of Parts 1, 2, 21, and 43 of the Commission's Rules and Regulations to Provide for Licensing and Regulation of Common Carrier Radio Stations in the Multipoint Distribution Service, *Report and Order*, Docket No. 19493, 45 FCC 2d 616 (1974), *recon. denied*, 57 FCC 2d 301 (1975) (*1974 R&O)*. *See also 1983 R&O,* 48 Fed. Reg. at 33873 ¶ 5. Amendment of Parts 2 and 74 of the Commission's Rules to Establish a New Class of Educational Television Service for the Transmission of Instructional and Cultural Material to Multiple Receiving Locations on Channel in the 2500-2690 MHz Frequency Band, Docket No. 14744, *Second Report and Order*, 30 FCC 2d 197 ¶ 8 (1971) (*1971 R&O)*.

[15] *Id*.

[16] Amendment of Part 21.703(g), and (h) of the Commission's Rules, *Memorandum Opinion and Order*, 47 FCC 2d 957 (1970).

[17] *Id*.

12. In 1983, in response to the demand for additional spectrum for delivery of video entertainment programming to subscribers, the Commission re-allotted eight ITFS channels (the E and F channel blocks) and associated response channels for use by MDS.[18] The Commission determined that the ITFS spectrum was underutilized given that there were a substantial number of unused ITFS channels in many areas of the country, with several states having no ITFS licensees whatsoever.[19] At the same time, in an effort to encourage more intensive use of the spectrum and to help ITFS licensees generate needed revenue, the Commission began to relax use restrictions on ITFS licensees so that they could lease excess capacity on their facilities to commercial entities.[20] Following that decision, there was a significant increase in the number of applications filed for new ITFS facilities.[21] In 1985, the Commission further relaxed restrictions governing the leasing of excess capacity to commercial providers,[22] allowing ITFS operators to lease up to 95 percent of their capacity for non-educational purposes.[23] In 1987, the Commission allowed MDS operators to elect non-common carrier (and non-broadcast) status, leaving them subject to regulation pursuant to Part 21 of the Commission's Rules and the general provisions of Title III of the Communications Act of 1934, which apply to all radio station licensees.[24] That same year, the Commission eliminated the time-of-day restrictions on leasing ITFS spectrum and authorized operators to use automatic switching equipment.[25] In this same general timeframe, the Commission continued to relax requirements concerning ITFS licensees leasing spectrum for MDS operations.[26]

13. In 1991, in an effort to provide more spectrum for multichannel video operations, the Commission re-allotted three additional channels in the 2500-2690 MHz band (the H channel block) from the Private Operational-Fixed Microwave Service[27] (OFS) to MDS.[28] This resulted in the current division

[18] Amendment of Parts 2, 21, 74 and 94 of the Commission's Rules and Regulations in regard to frequency allocation to the Instructional Television Fixed Service, the Multipoint Distribution Service, and the Private Operational Fixed Microwave Service, Gen Docket No. 80-112 and CC Docket No. 80-116, *Report and Order*, 94 FCC 2d 1203 (1983) (*First Leasing Decision*).

[19] *Id.* at 1203 ¶ 4.

[20] *First Leasing Decision*, 94 FCC 2d at 1203.

[21] *See* section IV.C.3, *infra,* for further discussion of leasing practices and issues.

[22] Amendment of Part 74 of the Commission's Rules and Regulations in Regard to the Instructional Television Fixed Service, MM Docket No. 83-523, *Second Report and Order*, 101 FCC 2d 50, 87 ¶ 95 (1985) (*1985 R&O*).

[23] *See* Amendment of Parts 21 and 74 to Enable Multipoint Distribution Service and Instructional Television Fixed Service Licensees to Engage in Fixed Two-Way Transmissions, *Report and Order*, 13 FCC Rcd 19112, 19157 ¶¶ 86-87 (1998) (*Two-Way R&O*).

[24] Multipoint Distribution Service Regulatory Classification, CC Docket No. 86-179, *Report and Order,* 52 Fed. Reg. 27553 (1987) (summarizing FCC 87-210, released July 16, 1987).

[25] Amendment of Parts 21, 43, 74, 78, and 94 of the Commission's Rules Governing Use of the Frequencies in the 2.1 and 2.5 GHz Bands Affecting: Private Operational-Fixed Microwave Service, Multipoint Distribution Service, Multichannel Multipoint Distribution Service, Instructional Television Fixed Service, & Cable Television Relay Service, GN Docket No. 90-54, *Order on Reconsideration*, 6 FCC Rcd 6764, 6774 (1991), *recon. denied,* 7 FCC Rcd 5648 (1992) (*1991 R&O*).

[26] For example, the Commission eliminated the requirement that ITFS licensees fulfill their minimum educational usage obligations by transmitting such content on their own stations, allowing them the option of transmitting it on other licensees' ITFS or MDS stations. *See Two-Way R&O*, 13 FCC Rcd at 19165-66 ¶¶ 100-101.

[27] Prior to its allocation to ITFS, the 2500-2690 MHz band was allocated to shared use by Private Operational Fixed Microwave Service (OFS) stations and international control stations. The traditional Fixed Service use of this band (continued….)

of spectrum in the 2500-2690 MHz band between ITFS and MDS. Of the 190 megahertz of total spectrum, 122.5 megahertz is allocated to ITFS, including 20 6-megahertz main station video channels, while 66.5 megahertz is allocated to MDS, including 11 main station video channels.

14. Over the past decade, the Commission has taken a number of steps to increase the technical flexibility afforded to both ITFS and MDS licensees in the 2500-2690 MHz band. In 1993, the Commission granted ITFS licensees flexibility to use channel loading to shift their required educational programming onto a subset of their authorized number of channels by channel loading, e.g.., an ITFS licensee could move all of its ITFS programming on to one of its four channels and lease the remaining three channels on a twenty-four-hour basis to a wireless cable operator.[29] In 1996, the Commission permitted MDS and ITFS licensees to employ digital technologies,[30] and in 1998, it expanded the existing allocation for one-way video service to allow MDS and ITFS licensees to construct digital two-way systems capable of providing high-speed, high-capacity broadband service, including two-way Internet service via cellularized communication systems.[31] Finally, in 2001, the Commission added a mobile allocation to the 2500-2690 MHz band (excluding aeronautical mobile) to make it potentially available for advanced mobile wireless services, including IMT-2000 and future generations of wireless systems.[32]

B. Current Uses of the Band

15. System operators in the 2500-2690 MHz band (both licensees and lessees) are generally providing four categories of service offerings today: (1) downstream analog video; (2) downstream digital video; (3) downstream digital data; and (4) downstream/upstream digital data.[33] Licensees and lessees

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was primarily private microwave communications uses such as multichannel voice and data circuits. *See 1983 R&O,* 48 Fed. Reg. at 33873 ¶ 8.

[28] *1991 R&O,* 6 FCC Rcd at 6792. In the first *R&O* in this proceeding, the Commission made MDS operators eligible to use microwave frequencies in the Cable Television Relay Service (CARS). Amendment of Parts 21, 43, 74, 78 and 94 of the Commission's Rules Governing Use of the Frequencies in the 2.1 and 2.5 GHz Bands Affecting Private Operational-Fixed Microwave Service, Multipoint Distribution Service, Multi-Channel Multipoint Distribution Service, Instructional-Television Fixed Service, and Cable Television Relay Service, *Report and Order*, 5 FCC Rcd 6411, 6423 (1990) (*1990 R&O*). CARS is primarily a service for carrying video. Amendment of Eligibility Requirement in Part 78 Regarding 12 GHz Cable Television Relay Service, *Report and Order*, 17 FCC Rcd 9930, 9945-6 (2002) (*CARS R&O*). ITFS operators are currently not eligible for CARS licenses, except in very limited circumstances. 47 C.F.R. § 78.13(e).

[29] Amendment of Part 74 of the Commission's Rules Governing Use of the Frequencies in the Instructional Television Fixed Service, MM Docket 93-106, *Report and Order,* 9 FCC Rcd 3360 ¶ 2 (1994) (*1994 R&O*). *See also* 47 C.F.R. § 74.931(e)(9).

[30] *See* Use of Digital Modulation by Multipoint Distribution Service and Instructional Television Fixed Service Stations, *Declaratory Ruling and Order*, 11 FCC Rcd 18839 (1996) (*Digital Modulation Declaratory Ruling and Order*).

[31] *Two-Way NPRM,* 15 FCC Rcd at 14566.

[32] *See* Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, including Third Generation Wireless Systems, ET Docket No. 00-258, *First Report and Order and Memorandum Opinion and Order*, 16 FCC Rcd 17222 (2001) (*3G R&O*).

[33] Amendment of Parts 1, 21, 73, 74 and 101 of the Commission's Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands; Part 1 of the Commission's Rules - Further Competitive Bidding Procedures; Amendment of Parts 21 and 74 (continued….)

have deployed or sought to deploy these services via three types of system configuration: high-power video stations, high-power fixed two-way systems and low-power, cellularized two-way systems.[34] We noted in the *NPRM* that most MDS operators and a substantial proportion of ITFS operators are particularly interested in using low-power, cellularized two-way systems, because they are more spectrally efficient than high-power systems, can support provision of high-data-rate services to a large number of subscribers, can help overcome obstacles to line-of-sight service, and can more readily support mobile or portable services.[35] We also noted our concern that interference issues created by the distribution of high-power systems throughout the existing band plan have severely limited the ability of licensees and lessees to deploy low- power services.

C. The Coalition Proposal

16. On October 7, 2002, the Coalition submitted a paper entitled "A Proposal for Revising the MDS and ITFS Regulatory Regime" ("Coalition Proposal" or "White Paper"), which recommended fundamentally changing the rules governing the 2500-2690 MHz band.[36] In general, the Coalition argued that the band was not being used to the fullest extent possible[37] and that rule changes were necessary to allow new services to develop. The Coalition envisioned this band being used to provide new wireless two-way broadband services (e.g., provide commercial service to portable, nomadic and mobile laptops, Personal Digital Assistants (PDAs), and other non-stationary devices) where the network architecture is based on a low-power cellular concept. The Coalition contended that the explosive growth of 802.11b-compliant "hot spots" demonstrated the demand for this sort of service and that this band could be used to provide ubiquitous service, not just at hot spots. It pointed out that several MDS licensees were currently test marketing this new two-way broadband service.[38] It asserted, however, that a "radical reworking of the MDS and ITFS regulatory structure [wa]s needed" for such new services to develop and flourish in this band.[39] The Coalition focused primarily on engineering issues – accommodating the needs of two incompatible types of users that presently share a single band: one-way, relatively high-powered stations and operators that seek to maximize spectral efficiency by deploying low-powered cellular systems.

17. To this end, the Coalition proposed establishing a new band plan to facilitate advanced low-

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to Enable Multipoint Distribution Service and the Instructional Television Fixed Service Amendment of Parts 21 and 74 to Engage in Fixed Two-Way Transmissions; Amendment of Parts 21 and 74 of the Commission's Rules With Regard to Licensing in the Multipoint Distribution Service and in the Instructional Television Fixed Service for the Gulf of Mexico; WT Docket Nos. 03-66, 03-67, 02-68, MM Docket No. 97-217, *Notice of Proposed Rulemaking and Memorandum Opinion and Order*, 18 FCC Rcd 6722, 6734 ¶ 23 (2003) (*NPRM*).

[34] *Id.*

[35] *Id.*

[36] *See generally* Coalition Plan.

[37] For example, the Coalition contends that it has become clear that the growth of direct broadcast satellite (DBS) and cable systems has "closed the window of opportunity for wireless cable" in all but a relatively few markets where wireless cable has gained a foothold. Coalition Proposal at 2. In regard to two-way services, the Coalition states that because of problems associated with first generation two-way technology, many in the industry have decided to halt deployment of additional first generation systems until those problems can be resolved. Coalition Proposal at 4.

[38] Coalition Proposal at 5-7.

[39] *See* Letter from the Coalition to Thomas J. Sugrue, Chief, Wireless Telecommunications Bureau, Federal Communications Commission dated Oct. 7, 2002 (accompanied the Coalition Proposal).

power two-way broadband systems while at the same time protecting existing high-power systems (e.g., video operations). The Coalition proposed dividing the band into three segments, consisting of the LBS, MBS, and UBS.[40] Low-power operations would utilize the LBS and UBS while high-power video operations would operate in the MBS. The Coalition also proposed (1) eliminating unnecessary regulatory burdens imposed by site-by-site licensing,[41] (2) simplifying the technical rules to facilitate operations in the band,[42] (3) establishing a market-by-market mechanism for transitioning to the new band plan and (4) eliminating outdated regulations. On October 17, 2002, the Commission released a Public Notice detailing the Coalition's proposal.[43]

18. On April 2, 2003, we released the Notice of Proposed Rule Making (*NPRM*) in this proceeding.[44] In the Notice, we sought comment on the Coalition Proposal as well as other potential alternatives for restructuring the 2500-2690 MHz band. We noted that this proceeding provided an opportunity to help meet our statutory duty to "encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans (including, in particular, elementary and secondary schools and classrooms). . ."[45] We also noted the potential for this band to be used for broadband technologies, including high-speed digital technologies that provide consumers integrated access to voice, high-speed data, video-on-demand, and interactive delivery services. We sought comment on how best to further our goal of promoting competition, innovation, and investment in broadband services and facilities while monitoring progress toward the deployment of broadband services in the United States and abroad.[46]

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[40] The Coalition narrowed the channels in the LBS and UBS to 5.5 megahertz in order to provide room for the J and K bands to separate high-power and low-power services. The Coalition explains that "[a]lthough the channels in the LBS and the UBS will be 5.5 MHz wide rather than 6 MHz wide and the channels in the Transition Band will be 1.5 MHz wide, no change in the current rules affording licensees the flexibility to subchannelize and superchannelize is proposed. Therefore, even after the transition licensees can continue to utilize 6 MHz channels in the LBS, the UBS, and the Transition Bands, provided that appropriate consents are achieved." Coalition Proposal at 13 n.32.

[41] For example, the Coalition contends that under the current licensing model, it will take substantially more applications to license a populated market for second generation MDS service (*e.g.,* low-power, two-way broadband service). It estimates that it could take close to two thousand applications under the current licensing approach to fully license the band for a second generation system in just one major market. This licensing model, according to the Coalition, results in substantial transaction costs and delays of providing service. *See* Coalition Proposal at 7-8.

[42] For example, the Coalition argues that "an applicant is required by the complex 'Appendix D' interference-prediction methodology to assume in conducting analyses that each and every one of its subscribers is located at the very point most likely to cause interference to a neighbor. In other words, an applicant proposing to provide service on a given channel to 1000 subscribers simultaneously is required to assume that all 1000 subscribers will be at the very spot most likely to cause interference. Unfortunately, these hypothetical assumptions, for all practical purposes, preclude system operators from serving substantial portions of their authorized territories. *See* Coalition Proposal at 3.

[43] Wireless Telecommunications Bureau Seeks Comment of Proposal to Revise Multichannel Multipoint Distribution Service and the Instructional Television Fixed Service Rules, DA 02-2732, *Public Notice* (rel. Oct. 17, 2002) *(MDS/ITFS Public Notice)*. Fifty-three entities filed comments and eight filed reply comments.

[44] *See NPRM,* 18 FCC Rcd at 6722.

[45] *See* Telecommunications Act of 1996, Pub. L. 104-104, § 706(a), 110 Stat. 56 (1996); 47 U.S.C. § 157.

[46] *Id.*

19. We noted in the *NPRM* that both the Coalition's analysis of the problems in the 2500-2690 MHz band and its proposed solutions were broadly consistent with the conclusions articulated in the Commission's 2001 3G Final Report.[47] Of particular importance is the Commission's conclusion therein that traditional MDS/ITFS stations and third generation (3G) cellular systems are not compatible with each other when they are operating on the same frequencies. Their service area borders must be separated by distances exceeding 100 miles to ensure that MDS/ITFS transmitters will not cause harmful interference to 3G receivers.[48] We further noted the report's conclusion that existing MDS/ITFS systems preclude operation of 3G systems in forty-nine of the fifty largest cities in the U.S., because all thirty-one of the MDS and ITFS channels in the 2500-2690 MHz band are licensed within 100 miles of those forty-nine cities.[49] In the 3G Final Report, the Commission concluded that it would not be feasible to move the incumbent licensees to a different band. Instead, it recommended segmenting the band into separate high- and low-power segments and requiring both incumbents and new applicants to conform with the new technical rules.[50] While the 3G Final Report focused on one particular type of new technology, its conclusions may apply with respect to any low-powered two-way service that seeks to achieve spectral efficiencies through a cellular-style configuration.

20. In the *NPRM*, we acknowledged that the Coalition's proposal was a major step forward to examination of this band. However, we also believed that significant progress would also require a discussion of ownership and eligibility issues, transition timetables, and, perhaps, a more thorough resolution of engineering issues as well. In this regard, we sought comment on the possibility of eliminating eligibility and use criteria for ITFS spectrum and the possibility of merging MDS and ITFS into a single Broadband Communications Service. We also sought comment on the best manner in which to accomplish the transition process, and whether we should establish a timetable for conversion of the entire 2500-2690 MHz band to low-power operations compatible with two-way, broadband cellular services. We emphasized that we did not propose to reclaim licenses from any incumbent operators that have complied with our existing rules and continue to comply with our new rules.

IV. DISCUSSION

A. Changes to 2500-2690 MHz Band Plan

21. *Background.* The 2500–2690 MHz band is currently comprised of twenty 6 megahertz ITFS channels and eleven 6 megahertz MDS channels. The channels in this band are licensed in groups of four (except for the MDS H block, consisting of three channels), but the channels in each group are interleaved rather than contiguous. As discussed in detail in the *NPRM*, this band plan, designed primarily to promote wireless cable and educational television services, was established in the early 1960s when television technology precluded the use of adjacent channels.[51] This channelization framework, which has remained essentially unchanged since that time, was appropriate for when the Commission created ITFS and MDS, but is not optimal for digital two-way services. Additionally, there is no longer a technical rationale for the interleaved band plan, because MDS and ITFS systems have been technically able to use adjacent channels

[47] *See NPRM*, 18 FCC Rcd at 6743 ¶ 45.

[48] *See* Principles for Promoting Efficient Use of Spectrum By Encouraging the Development of Secondary Markets, Policy Statement, 15 FCC Rcd 24178, 24191 ¶ 31 (2000) (*2000 Spectrum Policy Statement)*.

[49] *Id.* at 24191 ¶ 32.

[50] *Id.* at 24194 ¶ 40.

[51] *See NPRM*, 18 FCC Rcd at 6744-45 ¶ 47-48.

for the past 20 years. Moreover, the interleaved channelization scheme is particularly problematic when one licensee seeks to operate at low-power while the adjacent licensee operates at high power, because low-power services are especially susceptible to interference from high-power transmissions on adjacent channels.

22. The current interleaved band plan, coupled with the current adjacent channel interference protection rules, effectively precludes any licensee from providing broadband service unless consent is received from the licensee of the interleaved channel group (e.g., the licensee of the A Group cannot deploy two-way services without consent from the licensee of the B Group, and vice versa). This hampers the ability of individual MDS and ITFS licensees to deploy broadband services by giving adjacent channel licensees veto power over any such offering. Another consideration is that when using spread-spectrum techniques to avoid interference, service providers can operate more efficiently when they have access to large blocks of contiguous spectrum. Thus, we noted in the *NPRM* that any plan we adopt should address the need to provide a means by which licensees could consolidate their channels into contiguous blocks while resolving the incompatibility between high-power one-way services and low-power cellular services.

23. Additionally, MDS Channels 1 and 2 were allotted the 2150-2160 MHz band and operated with corresponding channels in the 2500-2690 MHz band.[52] In fifty of the largest metropolitan areas, the Commission allotted an extra megahertz for MDS Channels 1 and 2 to create two 6 MHz channels (2150-2162 MHz).[53] Because of their frequency separation from the rest of the MDS spectrum, these channels were not as extensively used. Therefore, in order to accommodate a new 90 megahertz allocation for advanced wireless services (AWS), the Commission, in ET Docket No. 00-258, reallocated the 1710-1755 MHz and 2110-2155 MHz bands to the fixed and mobile services for AWS.[54] That action, however, deferred on the relocation of MDS Channels that were impacted to a later proceeding.

24. Contemporaneously with the adoption of this item, we have, in IB Docket No. 02-364 (Big Leo Spectrum Sharing R&O proceeding) added a co-primary fixed and mobile (except aeronautical mobile) service allocation to the 2495-2500 MHz band.[55] That allocation is intended to facilitate the relocation of MDS Channels 1 and 2 to spectrum embedded with other MDS operations that we address

[52] Amendment of Parts 1, 2, 21, and 43 of the Commission's Rules and Regulations to Provide for Licensing and Regulation of Common Carrier Radio Stations in the Multipoint Distribution Service, Docket No. 19493, *Report and Order*, 45 FCC 2d 616 (1974), *recon. denied*, 57 FCC 2d 301 (1975) (*1974 R&O)*. *See also 1993 R&O,* 48 Fed. Reg. at 33873 ¶ 5; *1971 R&O*, 30 FCC 2d at 197 ¶ 8. As noted above, in the top fifty markets, MDS Channel 2 is 2156-2162 MHz. Unless the context requires us to specifically discuss the top fifty markets, we will refer to MDS Channel 2 as 2156-2160 MHz.

[53] Amendment of Part 21.703(g), and (h) of the Commission's Rules, *Memorandum Opinion and Order*, 47 FCC 2d 957 (1970).

[54] *See* Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, including Third Generation Wireless Systems, ET Docket No. 00-258, *Second Report and Order*, 17 FCC Rcd. 23193 (2002) (*3G 2nd R&O*).

[55] *See* Review of the Spectrum Sharing Plan Among Non-Geostationary Satellite Orbit Mobile Satellite Service Systems in the 1.6/2.4 GHz Bands, IB Docket No. 02-364 (*Big LEO R&O)*; Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, including Third Generation Wireless Systems, ET Docket No. 00-258, FCC 04-134, *Report and Order, Fourth Report and Order, and Further Notice of Proposed Rulemaking* (adopted June 10, 2004).

herein. The actions within the Big Leo Spectrum Sharing R&O proceeding combined with the new band plan for the band will increase the efficient utilization of the 2496-2690 MHz spectrum and resolves the relocation of MDS Channels 1 and 2 by integrating these licensees with similar operations.[56] The details of the new band plan will be discussed below.

1. Addition of the 2495-2500 MHz band

25. As indicated above, in the Big Leo Spectrum Sharing R&O proceeding, we allocated the 2495-2500 MHz band to the fixed and mobile, except aeronautical mobile, services in order to provide additional spectrum to the 2500-2690 MHz band to accommodate the relocation of MDS Channels 1 and 2. We note that in the AWS *2nd Report and Order*, parties suggested a variety of potential relocation options for MDS Channels 1 and 2, including: 1) shifting the MDS channels up in frequency by five megahertz to the 2155-2165 MHz band;[57] 2) moving the MDS channels to spectrum within or adjacent to the MDS spectrum at 2500-2690 MHz;[58] 3) moving the channels to share the mobile satellite service (MSS) spectrum at 2010-2025 MHz;[59] and 4) considering whether replacement spectrum for MDS is even needed considering market forces, and if so, considering spectrum in the 2385-2400 MHz band, abandoned MSS spectrum below 2025 MHz, or 700 MHz spectrum bands.[60]

26. WCA, however, argues that each of these options poses difficulties for MDS operations. With respect to moving MDS to the 2155-2165 MHz band, it notes that in 50 markets, MDS licensees may use up to 12 megahertz which must be accommodated, that such relocation would eliminate the *de facto* guard band between MDS and MSS,[61] and that such a transition would have to be accomplished without disrupting service to customers and all costs must be reimbursed.[62] WCA further states that moving MDS into the MSS bands is problematic because it would reduce the size of the MSS spectrum.[63] Additionally, WCA states that the 2385-2400 MHz band is not suitable for MDS relocation because the

[56] MDS Channels 1 & 2 are located at 2150-2156 MHz and 2156-2162 MHz respectively. Some licensees are authorized to use the 2156-2160 MHz portion of the band, known as "Channel 2A." The Office of Engineering and Technology has designated MDS 1 and 2 for reallocation. *See* Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, including Third Generation Wireless Systems, ET Docket No. 00-258, *Third Report and Order, Third Notice of Proposed Rulemaking and Second Memorandum Opinion and Order,* 18 FCC Rcd. 2223 (2002) (*3G 3rd R&O & NPRM*).

[57] AT&T Wireless Comments to the *3G 3rd R&O & NPRM* at 12.

[58] Verizon Comments to the *3G 3rd R&O & NPRM* at 15.

[59] Cingular Comments to the *3G 3rd R&O & NPRM* at 11.

[60] Ericsson Comments to the *3G 3rd R&O & NPRM* at 10-11.

[61] WCA notes that it has filed a Petition for Reconsideration of the *Report and Order* in IB Docket No. 99-81 seeking to revise the MSS spectral mask to limit the power flux density into the MDS band. WCA Reply Comments at 32.

[62] *See id.* at 31-33.

[63] *See WCA Letter*, *supra* n.19. This letter was sent jointly by WCA, Bellsouth, Nucentrix, Sprint, and Worldcom. WCA is the trade association of the MDS industry. The other parties to the letter hold the majority of licenses in the 2150-2160 MHz band.

2385-2390 MHz band is not readily available and there is a likelihood of adjacent channel interference from Federal Government airborne telemetry operations and co-channel interference to amateur operations in the 2390-2400 MHz band.[64] WCA does, however, offer a relocation solution, stating that in the event the Commission deems relocation necessary, an acceptable compromise would be to relocate MDS Channels 1 and 2/2A to the 1910-1916/1990-1996 MHz bands and allow fixed or mobile use.[65]

27. We find that spectrum within the 2500 MHz band is the optimal location to relocate existing MDS licensees because it will allow the creation of an optimal band plan with contiguous spectrum, and integrate these licenses into the new BRS instead of orphaning MDS operations such that they would be part of a different service. Therefore, we find the allocation actions taken in the Big Leo Spectrum Sharing R&O proceeding produce the optimal situation for the relocation of MDS Channels 1 and 2. In order to promote sharing in the 2495-2500 MHz portion, we took the following actions in the Big Leo Spectrum Sharing R&O proceeding: 1) shifted mobile satellite service (MSS) ancillary terrestrial component (ATC) operations down from the 2492.5-2498 MHz band to the 2487.5-2493 MHz band;[66] 2) dictated that MSS receive operations in the 2495-2500 MHz portion will not be able to claim interference protection from new fixed and mobile operations;[67] and 3) designated the 2495-2496 MHz portion as a guard band to separate new BRS operations and incumbent operations below 2495 MHz. While these actions will allow the licensing of new terrestrial operations in the 2496-2500 MHz band, certain sharing constraints will be required.

28. We note that currently, there are 108 grandfathered terrestrial licenses for broadcast auxiliary service (BAS) and private radio services that are protected by primary status.[68] New licensees in this spectrum could share the spectrum through coordination efforts, which should be successful given the limited number of licensees. Nevertheless, we will explore in a future proceeding possible relocation steps for these operations. Indeed, because we are establishing a low-power BRS, we believe it would be appropriate to consider moving BAS at this time. Further, the entire 2400-2500 MHz band is available for Industrial, Scientific, and Medical (ISM) operations which use electromagnetic energy to perform a function other than communications, such as heating substances in a microwave oven.[69] We anticipate that BRS operations will be able to coexist with ISM operations because ISM operations use frequencies closer to the center of the band and in a controlled environment.

[64] *Id.* at 8-9.

[65] *Id.* at 2.

[66] This action will reduce the potential for interference conflicts between new terrestrial services and ATC terrestrial deployments.

[67] Because MSS receive units can operate globally, this action is needed to ensure new terrestrial services can deploy without having to protect globally roaming devices. We also note that the MSS downlink allocation goes down to 2483.5 MHz, so the majority of the MSS channels will be unencumbered by new terrestrial use of the 2496-2500 MHz band. The MSS allocation is maintained however in the upper portion, so MSS can make use of these channels prior to deployment of the new BRS operations in the band, and in geographic areas, such as remote areas where new terrestrial services are not likely to deploy.

[68] See 47 C.F.R. §2.106 NG147. Specifically, these operations include: 1 local television transmission license, 12 point-to-point microwave, private-industrial business licenses, 4 conventional public safety pool licenses, 12 TV intercity relay licenses, 78 TV pickup licenses, and 1 TV translator relay license.

[69] *See* 47 C.F.R. Part 18.

29. We also note that non-geostationary MSS space station downlink operations in the 2495-2500 MHz portion have a downlink power flux density (pfd) limit of -144 dBW/m^2 per 4 kilohertz or -126 dBW/m^2 per 1 megahertz reference bandwidth, depending on the angle of arrival.[70] This limit was designed to accommodate multiple MSS systems using code division multiple access (CDMA) techniques which is a form of spread spectrum modulation that can facilitate spectrum sharing. The limit was specifically designed to protect analog fixed relay systems and the ITU radio regulations indicate that they should be adequate to protect most digital fixed systems. These limits were not designed to protect mobile services. However, we believe there are some factors that could enable mobile services in this band should licensees take this approach. For example, the ITU limits were designed under conservative assumptions and were designed for multiple MSS systems overlapping in the same spectrum. Currently, however, the MSS in this band is only being used by one licensee, so the actual interference potential from satellite operations is much lower than the limit would indicate. Furthermore, mobile systems, such as cellular telephone and PCS systems, often utilize fairly strong signals throughout their coverage area in order to provide adequate capacity within each cell. Therefore, we conclude that the pfd limit does allow sharing with various terrestrial operations. New terrestrial entrants in the band should be aware of the MSS downlink emissions in the design of their systems.

2. Band Plan Alternatives

30. In the *NPRM*, we sought comment on several band plans that could potentially resolve the incompatibility between high-power one-way services and low-power cellular services. As previously noted, the Coalition's approach involved dividing the 2500-2690 MHz into three larger and three smaller segments, with the MBS reserved for high-power MDS and ITFS stations and the UBS and LBS reserved for low-power operations. The LBS would be designated as the mobile station transmit band while the UBS would be designated as the base station transmit band. The three minor segments would consist of the I band at 2686-2690 (narrowband auxiliary channels) and two transition or guard bands, the J band, located between the LBS and MBS at 2566-2572 MHz, and the K band located between the MBS and the UBS at 2614-2620 MHz. Under the Coalition's proposed band plan, a licensee that currently has four interleaved 6-megahertz channels and four interleaved 0.125 megahertz channels would be assigned 16.5 megahertz of contiguous spectrum in either the LBS or UBS, 6 megahertz of spectrum in the MBS, .5 megahertz of contiguous spectrum in the I band, and 1.5 megahertz of contiguous spectrum in bands that the Coalition refers to as the J and K bands after transitioning to the new band plan. Because there is no pairing of bands pursuant to this approach, a licensee who wishes to deploy Frequency Division Duplex (FDD) technology must assemble paired blocks through a white space auction or secondary market transactions.[71] Assuming that paired blocks can be acquired, however, this band plan allows for either FDD or Time Division Duplex (TDD) technology.[72] Pursuant to the Coalition's proposal, every MDS and

[70] *See* International Telecommunication Union (ITU) Radio Regulations, Appendix 5, Table 5-2.

[71] Frequency Division Duplex (FDD) provides simultaneous communications between two devices through the use of two different bands. The forward band refers to the spectrum used by base stations and the reverse band refers to the spectrum used by the subscriber. In FDD systems, frequency separation between the forward band and the reverse bands remains constant among each subscriber-base station communication.

[72] Time Division Duplex (TDD) provides communications between two devices sharing the same band by dynamically allocating short duration time intervals for transmitting and receiving. In TDD systems, a subscriber's device will operate in a transmit mode while the corresponding base station operates in a receive mode and vice versa, eliminating the need for duplex filters, as in FDD systems.

ITFS licensee would be assigned a geographic service area (GSA).[73] Existing circular protected service areas (PSAs) would be converted to GSAs with signal strength limits applied at their boundaries.[74]

31. In the *NPRM*, we also sought comment on two other types of band segmentation plans.[75] The first type, outlined in the 3G Final Report, involves alternating bands for low and high-power services, respectively, with guard bands in between the two 45 megahertz frequency blocks for low-power services. The *NPRM* noted that this approach might be beneficial because it would allow both types of operations to provide frequency separation between paired channel blocks for 3G and ITFS/MDS operations and would permit both FDD and TDD operations. Another band plan option proposed in the *NPRM* involved separating the band into one block for low-power operations and one block for high-power operations, separated by a guard band. We noted that such a band plan would provide a large block of contiguous spectrum for both types of operations and is particularly well suited to TDD technology.[76]

32. The other basic approach presented in the *NPRM* involved avoiding any segmentation of the band by applying an across-the-board limit on signal strengths sufficient to accommodate low-power cellularized operations on all channels throughout the 2500-2690 MHz band. We noted that the Coalition Proposal, or any other band segmentation plan, would require extensive, mandatory re-shuffling of channel assignments to avoid leaving high-power channels adjacent to low-power channels, in order to avoid adjacent channel interference.[77] By contrast, applying an across-the-board limitation on signal strengths could make de-interleaving a less urgent necessity and, perhaps, make it possible for acquisitions, channel trades, and other voluntary market processes to effectuate any needed consolidation of channels. We sought comment on the extent to which such a rule would reduce the need to apply mandatory channel reassignments or whether it would interfere with future uses of this spectrum by educators.

33. From a broader perspective, the *NPRM* stated that Coalition members appear to believe that the predominant future use of this band will be low-power mobile services. On that basis, we sought comment on whether it would be necessary to reserve a portion of this band in the long term to accommodate high-power services. We expressed particular interest in hearing from licensees who are engaging in high-power operations as to their long-term plans for the spectrum. We sought comment on the technical feasibility of this approach and the cost involved in complying with technical rules that may require licensees to substantially lower their signal strength outside their PSAs.

34. We note that the Coalition's band plan received support from a majority of commenters.[78] For

[73] A GSA is defined as a protected service area (PSA) that is bounded by political and/or geographical boundaries. *See* para. *53, infra*. A PSA is a land area over which an approved licensee is allowed to operate transmitting equipment.

[74] *See* para. 55, *infra.*

[75] *3G Final Report* at 37-57.

[76] *Id.* at 42.

[77] We address the complex transitional issues implicated by that process in section IV.A.5.

[78] Specifically, commenters, such as Alvarion Ltd. (Alvarion), California Amplifier, Celplan Technologies, Inc. (Celplan), ComSpec Corporation (ComSpec), Ericsson, Inc. (Ericsson), Flarion Technologies, Inc. (Flarion), Illinois Institute of Technology (IIT), Intel Corporation (Intel), Lucent Technologies (Lucent), Mississippi Ednet Institute, Inc. (Mississippi Ednet), Navini Networks, Inc. (Navini), The North Carolina Community College System (NCCCS), SBC Communications, Inc. (SBC), Sioux Valley Wireless, SOMA Networks, Inc. (SOMA), South Carolina Educational Television (SCETV), Blake Twedt & John Dudeck (Twedt & Dudeck) and the University of (continued….)

example, Alvarion supports the plan because it allows flexible use of the band, supports both TDD and FDD technologies, permits both current commercial and ITFS licensees to continue operations using the MBS, maintains the location of the I channels, and permits the band to lend itself to mass production of equipment, thereby serving as a catalyst to launch the wireless broadband market into the same realm served by cable modem and DSL broadband solutions today.[79]

35. Not all commenters, however, support the Coalition's band plan. Some commenters maintain that the Coalition's band plan, with only seven high-power channels, has too few high-power channels to support their needs. MDS providers further maintain that it would be too expensive for them to serve their customers using low-power network configurations.[80] ITFS providers argue that one MBS channel will not be able to accommodate their current or planned systems.[81] For instance, Stanford and Northeastern indicate that they have tested 5:1 compression and found it is not adequate for instructional programming because the quality is unsatisfactory and the delay unacceptable. Consequently, they contend, the loss of high-power channels would prevent them from expanding their systems from the present four channels to eight or even sixteen video programming channels and could[82] result in significant costs for purchasing new equipment for low-power operations, if these costs are not covered by the transition process. NAF urges that the 2500-2590 MHz portion of the band be redesignated for primary unlicensed use.[83]

36. *Discussion.* As previously noted, our main goals in this proceeding include: (1) promoting availability of broadband to all Americans, including broadband technologies for educators; (2) promoting innovation by maximizing flexibility in the service rules; (3) facilitating speed of transition and deployment in the band; and (4) providing incumbents with a reasonable opportunity to continue their current uses of the spectrum. In order to accomplish these goals, we believe that the optimal band plan must: (1) provide for low-power operations while maintaining some spectrum for high-power services; (2) promote consistent regulatory treatment with similar wireless broadband services;[84] and (3) offer flexibility

(Continued from previous page)
Arizona (UA) support the Coalition's band plan proposal. *See also* Alvarion Reply Comments at 3; IIT Comments at 15-16; California Amplifier Reply Comments at 1-2; Celplan Reply Comments at 2; ComSpec Comments at 2; Flarion Reply Comments at 2; Intel Comments at 6; Lucent Comments at 3; Mississippi Ednet Reply Comments at 1; Navini Reply Comments at 2; NCCCS Reply Comments at 1; SBC Communications; Sioux Valley Wireless Reply Comments at 1; SOMA Reply Comments at 1; SCETV Comments at 1; Twedt & Dudeck Reply Comments at 2; UA Reply Comments at 1. SCETV adds that the separation of the two low-power bands is necessary to support both FDD and TDD technologies. SCETV Comments at 6. SCETV also believes that PSA overlap should be equally divided among the respective licensees to create non-overlapping GSA's, but existing receivers outside the new GSA should receive grandfathered protection. SCETV Comments at 6.

[79] Alvarion Reply Comments at 3-5.

[80] *See* Joint commenters Adams Telecom, Inc., Central Texas Communications, Inc., and Leaco Rural Telephone Cooperative, Inc. (Adams et. al.) Comments at 5. *See also* Teton Wireless Television, Inc. (Teton) Comments at 9-10.

[81] *See* Stanford and Northeastern Comments at 8.

[82] Stanford and Northeastern Comments at 7.

[83] New America Foundation, et. al. (NAF) Comments at 4.

[84] Consistent regulatory treatment among similar services entails establishing similar technical and other rules among similar services. With respect to the band plan channel widths, 5 MHz is the least common multiple in the Personal Communications Systems band (PCS) (47 C.F.R § 24.1 et. seq.) and the Advanced Wireless Services band(AWS) (47 C.F.R § 27.1 et. seq.). Also, 5 MHz appears to be the most desired current wideband channel size, for FDD (specifically CDMA2000) and TDD technologies. The 5.5-megahertz-wide, low-power channels in our (continued….)

through technological neutrality. We conclude that it is in the public interest to adopt the band plan described below because it best accomplishes the goals of this proceeding.

37. The following chart shows the band plan we are adopting:

Commission Band Plan				
Channel Designation	Lower Frequency	Upper Frequency		
N/A	2495	2496	Guard Band	
BRS 1	2496	2502		
A1	2502	2507.5		
A2	2507.5	2513		
A3	2513	2518.5		
B1	2518.5	2524		
B2	2524	2529.5		
B3	2529.5	2535		
C1	2535	2540.5		LBS
C2	2540.5	2546		
C3	2546	2551.5		
D1	2551.5	2557		
D2	2557	2562.5		
D3	2562.5	2568		
J	2568	2572	Guard Band	
A4	2572	2578		
B4	2578	2584		
C4	2584	2590		
D4	2590	2596		MBS
G4	2596	2602		
F4	2602	2608		
E4	2608	2614		
K	2614	2618	Guard Band	
BRS 2	2618	2624		
E1	2624	2629.5		
E2	2629.5	2635		
E3	2635	2640.5		
F1	2640.5	2646		
F2	2646	2651.5		
F3	2651.5	2657		UBS
H1	2657	2662.5		
H2	2662.5	2668		

(Continued from previous page)
adopted band plan can easily accommodate a 5-megahertz-wide channel with 0.5 MHz of spectrum for a guard band, thereby enhancing a channel's capacity when considering adjacent channel use. We believe that common minimum channel allocations among similar services will readily lend the LBS and UBS to current as well as future equipment technology standards, thereby substantially lowering the cost of deployment.

H3	2668	2673.5		
G1	2673.5	2679		
G2	2679	2684.5		
G3	2684.5	2690		

38. Specifically, we adopt a three segment band plan, consisting of: the LBS, extending from 2496-2572 MHz, and comprised of twelve 5.5-megahertz-wide channels, one 6-megahertz-wide channel, and one 4-megahertz-wide guard band; the MBS, extending from 2572-2614 MHz, and comprised of seven 6-megahertz wide channels; and the UBS, extending from 2614-2690 MHz, and comprised of twelve 5.5-megahertz wide channels, one 6-megahertz-wide channel, and one 4-megahertz-wide guard band. MDS channel 1 will be relocated from 2150-2156 MHz to 2496-2502 MHz, the LBS, and MDS channel 2 will be relocated from 2156-2162 MHz to 2618-2624 MHz, the Upper Band Segment.

39. The plan we adopt today incorporates a number of key elements from the Coalition proposal that received broad support from commenters. Dividing the band into high and low-power segments resolves the problems created by the current interleaved configuration of the band which inhibits the development of low-power cellularized broadband uses of the band.[85] In addition to creating an environment for development of low-power systems, the plan reserves some spectrum for high-powered use for both EBS and rural licensees who have a continued need to deploy high-power systems. Like the Coalition proposal, the plan we adopt is also technologically neutral, affording licensees the flexibility to deploy either FDD or TDD technology anywhere in the 2.5 GHz band.

40. However, the band plan we adopt departs in some respects from the Coalition's proposed band plan. As noted above, we have expanded the overall bandwidth of the existing BRS-EBS band by reallocating 2495-2500 MHz to fixed and mobile except aeronautical mobile services. Moreover, the Commission band plan will make full use of the 4 megahertz of spectrum (I band) located at the end of the band at 2686-2690 MHz.[86] Finally, whereas the Coalition proposes to create 6-megahertz-wide guard bands in the low-power LBS and UBS (referred to as the J and K bands, respectively) the Commission's plan designates the J and K bands as 4-megahertz-wide bands. The use of 4-megahertz J and K bands is consistent with conclusions in the *3G Final Report* that 4 megahertz was sufficient to separate low-power and high-power uses.[87] Furthermore, reducing the guard band increases the amount of spectrum available for low-power and high-power use. As discussed below, these changes will accommodate the relocation of incumbents to new spectrum assignments in the band that will give them substantially greater flexibility than the current band plan, while also facilitating the relocation of MDS Channels 1 and 2.

41. Adoption of the Coalition's proposed 16.5 megahertz-wide LBS and UBS blocks provides ample capacity for existing MDS and ITFS licensees to develop low-power broadband services of the type contemplated by the Coalition. These blocks will enable licensees to deploy any possible combination of the most current FDD and TDD standard channel sizes, which are based on channelizing in 5 megahertz

[85] Although power restrictions in both the low-power segments (UBS and LBS) are identical, low-power, mobile operations at 2496-2572 MHz and 2614-2690 MHz will be protected through the transition plan and transmitting antenna height requirements.

[86] Presently, the response band is largely unused as there are only six licenses in this band in the entire U.S.

[87] *3G Final Report* at 49.

increments.[88] Basing the LBS and UBS band plan on a minimum channel width of 5 megahertz is also consistent with our band plans for other wireless services such as broadband PCS and the 1710-1755/2110-2155 MHz AWS band, which utilize 5 megahertz multiples as the basis for their frequency blocks. In addition, the assignment of 5.5 megahertz-wide channels throughout the band promotes consistency between commercial wireless services and provides licensees the opportunity to take advantage of existing and future technologies thereby substantially lowering the cost of deployment. Furthermore, as discussed later in this text, the BRS/EBS technical rules we are adopting for the low-power bands are similar to those of both the PCS and AWS rules, thus making all three services similar.[89]

42. The LBS and UBS will also contain two smaller segments, the J and K bands, which will serve primarily as guard bands. The J band will be located between the LBS and MBS at 2568-2572 MHz, and the K band will be located between the MBS and UBS at 2614-2618 MHz. The new channel assignments will be assigned on a pro rata basis to existing licensees in the other channel groups.

43. Under the band plan we adopt in this order, a licensee that presently has four interleaved 6 megahertz channels and four associated 0.125 megahertz response channels will receive 16.5 megahertz of contiguous spectrum in either the LBS or UBS, a 6 megahertz channel in the MBS, and 1 megahertz of contiguous spectrum in either the J or K guard bands after the transition. A licensee presently assigned one channel in the band, will receive one 5.5 megahertz channel in either the LBS or UBS or one 6 megahertz channel in the MBS.[90] The provision of contiguous spectrum, combined with the deployment of compressed digital signals, will provide incumbents with the opportunity to maintain their current level of analog operations. At the same time, the relocation of MDS Channels 1 and 2 to the band will make these channels more useful as part of a contiguous broadband service band and may foster competition and new service options. These additional competitive opportunities will, in turn, promote the public interest. Incumbents will enjoy the benefit of spectrum with increased flexibility and utility while the public benefits from the likely innovation and cost savings that will result from increased competition.

44. The MBS portion of the band plan also addresses concerns of commenters who seek to continue providing high-power video services. The MBS will continue to be divided into 6 megahertz channels, consistent with the existing band plan. Through use of digital technology, this should provide ample capacity for most EBS incumbents to continue providing existing instructional programming if they wish to do so. In addition, to the extent that EBS incumbents must find funding for new equipment to make up for the loss of additional high-power channels, we note that under the transition plan we adopt today, EBS licensees' conversions will be fully funded.[91] Thus, this does not prohibit channel expansion at a later date. Although MDS licensees currently providing competitive video services in rural areas will most likely have to alter their systems, they will be afforded ample opportunity to do so.[92] Hence, although the new band plan may result in some inconveniences, the long term benefits of the new band plan will ultimately benefit most licensees and the public. We also note that conversion of the band to provide for

[88] FDD code division multiple access (CDMA) channel widths are currently 1.25 MHz, 3.75MHz and 5 MHz. TDD standard channel sizes are currently 5, 10 and 15 MHz.

[89] For discussion on technical rules *see* section IV.B, *infra*. For PCS and AWS technical rules and frequency assignments *see* 47 C.F.R. Parts 24 and 27 respectively.

[90] If a licensee currently has only the fourth channel in a group, they will receive one 6 megahertz channel.

[91] *See* discussion on Transition, see section IV.A.5, *infra.*

[92] *Id.*

low-power operations will allow for more diversity in services that can be offered.[93]

45. Commenters, such as Grand Alliance, FWH, and Spectrum Market favor across-the-board power reductions in signal strength limits to resolve the issue of the incompatibility between high and low-power systems.[94] Grand Alliance states that uniform low-power operations are the most efficient way to use the spectrum, permitting the provision of new, advanced services in order to keep the United States at the forefront of technology development. Grand Alliance further states that "despite billions of dollars of investment, the existing high-power services have failed to establish any clear value."[95] FWH adds that this approach would be consistent with the approach the Commission has taken with respect to the other bands allocated for flexible use.[96] Similarly, Spectrum Market suggests that both public and private interest, short and long term, will be served if the Commission requires conversion of the entire MDS/ITFS band for low-power two-way services, and that it is essential for educators to transition ITFS use to broadband, interactive educational technologies.[97]

46. While we see merit to the arguments presented by commenters who support across-the-board power reductions, we are nonetheless persuaded by commenters such as IIT, IPWireless, BellSouth, OWTC and Teton Wireless Television (Teton), who convincingly argue that there remains a continued need for high-power operations in the band. Furthermore, commenters such as Teton convincingly argue that high-power operations allow use of spectrum in rural areas where low-power systems are not as effective. Teton and other rural MDS commenters have also expressed concern that the inability to engage in high-power operations will effectively shut down their operations. Moreover, we are concerned by comments presented by the Diocese of Brooklyn, the Archdiocese of New York and Region 10 who argue that an across-the-board reduction in power would jeopardize and disrupt the important services they offer via high-powered operations.[98] Similarly, MDS operators such as Digital TV One assert that commenters such as FWH do not take into account the spectrally efficient digital MDS/ITFS multi-channel video systems operated by entities such as itself and WATCH TV.[99] Likewise, Digital TV One criticizes Spectrum Market for not discussing how its suggestions will benefit customers who rely on Digital TV One and other MDS/ITFS operators as a source of multi-channel video programming.[100] Similar arguments have also been convincingly presented by Teton, which argues that those who advocate this approach have no regard to what these important services mean to rural families, and no appreciation for the technical reality of providing service in such rural areas, because a low-power cellular architecture is

[93] The Coalition originally proposed placing Channel G4 next to the K band. It later proposed switching Channels E4 and G4 so that Channel E4, an MDS channel, would be located next to the K band. Coalition Ex Parte Presentation, June 3, 2004. We adopt this proposal because it prevents ITFS licensees from having to address interference issues that might arise if ITFS were located adjacent to a low-power band.

[94] Fixed Wireless Holdings (FWH) Comments at 6.

[95] Grand Alliance Comments at 6.

[96] FWH Comments at 6 (referencing Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59), GN Docket No. 01-74, Report and Order, 17 FCC Rcd 1022, 1063-63 ¶ 102, 1068-69 ¶ 119, and 1069-70 ¶ 122 (2002) (*Lower 700 MHz R&O*)).

[97] Spectrum Market Reply Comments at 5, quoting SCETV Comments at 5.

[98] Diocese of Brooklyn Comments at 1-2; Archdiocese of New York Comments at 1.

[99] Digital TV One Reply Comments at 4.

[100] Digital TV One Reply Comments at 4-5.

not financially feasible in rural markets.[101] We agree with Teton that the expenses involved in deploying multiple cell sites to serve sparse populations may make it impractical to continue most services offered over high-power systems.[102] Finally, we agree with BellSouth's assertions that the former regulatory regime, ill equipped to accommodate nationwide deployment of TDD and FDD technologies, is largely responsible for the slowed deployment of low-power systems.[103] For these reasons, we conclude that we should not adopt across-the-board power reductions in the band. We note that the question of whether high-power operations are still needed in this band can be reassessed in the future when low-power BRS/EBS systems provide substantial service over large areas.

47. We also reject NAF's proposal to reallocate 2500-2590 MHz to unlicensed use and leave 2590-2690 MHz for licensed use. NAF argues that creating a primary unlicensed band would offer an opportunity to expand on existing Wi-Fi technology and provide an incentive for others to develop new communications technologies.[104] The NAF proposal, however, would not leave sufficient room for viable high-power and low-power licensed operations. The record does not demonstrate that there is a need for the 2500-2590 MHz band to be designated for unlicensed use. We note that the Commission is considering authorizing unlicensed use in several other bands.[105] Indeed, we believe that authorizing licensed spectrum for wireless broadband access is a strong complement to our existing and proposed unlicensed allocations. The volume of comments we have received in this proceeding demonstrates that there is a strong interest in having licensed spectrum available for use in wireless broadband applications.

a. Response Channels

48. In 1991, we allocated the seven 125 kHz response channels (part of the R channels under the Coalition band plan) associated with MDS channels E3, E4, F3, F4, H1, H2, and H3 to the OFS.[106] The Coalition proposed to return these channels for MDS use.[107] In the *NPRM*, we stated that we believed the Coalition's proposal was meritorious because there are no OFS licensees currently on these channels, probably because they are too narrow to be usable by themselves. We sought comment on this proposal. We also sought comment on whether we should automatically give the channels to the geographic area licensee of the corresponding 6-megahertz main channel, or implement some other method of assignment such as licensing the channels on a geographic area basis and allowing any eligible entity to apply for these channels. Inasmuch as there were no objections to the Coalition's proposal, we conclude that we will return the 2686-2690 MHz response channel band to BRS/EBS use as described in the adopted band plan.

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[101] Teton Wireless Television (Teton) Reply Comments at 5.

[102] Teton Reply Comments at 5.

[103] BellSouth Reply Comments at 12.

[104] NAF Comments at 4.

[105] *See* Unlicensed Operation in the TV Broadcast Bands; Additional Spectrum for Unlicensed Devices Below 900 MHz and in the 3 GHz Band, (ET Docket Nos. 02-380, 04-186, *Notice of Proposed Rule Making*, FCC 04-113 (rel. May 25, 2004); In the Matter of Unlicensed Operation in the Band 3650 – 3700 MHz; Additional Spectrum for Unlicensed Devices Below 900 MHz and in the 3 GHz Band; Amendment of the Commission's Rules With Regard to the 3650-3700 MHz Government Transfer Band; ET Docket Nos. 04-151, 02-380, 98-237, *Notice of Proposed Rulemaking*, FCC 04-100 (rel. Apr. 23, 2004) (*Unlicensed NPRM*).

[106] *1991 R&O,* 6 FCC Rcd at 6795.

[107] Coalition Proposal at 12, n.30.

49. In the *NPRM*, we sought comment on the Coalition's recommendation that operation on the response channels be secondary to operation on the LBS, MBS, and UBS channels. The MMDS Licensee Coalition opposes this recommendation and states that response channels should receive equal status.[108] We believe affording 2686-2690 MHz spectrum secondary status to the LBS, MBS, and UBS is a moot issue at this point because we are adopting a band plan that absorbs the I band into the BRS/EBS spectrum in order to allow for 5.5-megahertz-wide channels as well as the reallocation of MDS 1 and 2 to the lower and upper bands. With proper planning, these types of operations should be able to operate adjacent channel to other operations and there is no justifiable reason to relegate licensed services in the 2686-2690 MHz spectrum to secondary status relative to the LBS, MBS and UBS operations. In a related matter, we believe that the recently revised footnote US269 in the Table of Frequency Allocations affords sufficient protection of the passive services in the 2690-2700 MHz band.[109] Thus, with proper coordination, operations on channel G3 will be reasonably possible while sufficiently protecting the 2690-2700 MHz band.

3. Border Regions

50. On June 25, 2002, the Commission and Industry Canada entered into an interim sharing arrangement concerning the use of the frequency bands 2150 – 2162 MHz and 2500 – 2690 MHz near the Canada/United States of America border.[110] That interim sharing arrangement replaced the General FCC/Industry Canada Understanding.[111] The interim sharing arrangement requires licensees to coordinate their operations with each other for their respective service areas on both sides of the border and does not apply to stations in the mobile service.[112] The current agreement with Mexico generally requires coordination of facilities within 80 km of the United States/Mexico border along with consideration of other technical criteria such as power flux density at the border and antenna polarization, and does not take into account the use of stations in the mobile service.[113]

51. We are in the process of reviewing our existing agreements with Canada and Mexico in order to ensure that we can fully implement the band plan and other provisions we have adopted today. To the extent necessary, we will engage in negotiations to effect appropriate revisions to those agreements with the Mexican and Canadian governments. Our principal goal of these discussions will be to allow full

[108] MMDS Licensee Coalition Comments at 8.

[109] *See* In the Matter of Amendment of Parts 2, 25, and 87 of the Commission's Rules to Implement Decisions from World Radiocommunication Conferences Concerning Frequency Bands Between 28 MHz and 36 GHz and to Otherwise Update the Rules in this Frequency Range, ET Docket No. 02-305, *Order,* 19 FCC Rcd 4653 ¶¶ 1-2 (2004) (*36 GHz Order*).

[110] Interim Arrangement Concerning the Use of the Frequency Bands 2150 – 2162 MHz and 2500 – 2690 MHz by MCS and MDS Stations Near the Canada/United States of America Border (dated Jun. 25, 2002) (Interim Sharing Arrangement).

[111] General FCC/Industry Canada Understanding Concerning the Coordination of the 2500-2686 MHz Band within 80 km (50 Miles) of the United States of America/Canada Border (dated December 5, 1997).

[112] Interim Sharing Arrangement, ¶ 22.

[113] Agreement between the Government of the United States of America and the Government of the United Mexican States Concerning the Assignment of Frequencies and Usage of the 2500-2686 MHz Band along the United States-Mexico Border (dated Aug. 11, 1992, as amended by exchange of Diplomatic Notes dated October 1, 1998 and October 23, 1998).

implementation of our new rules in the border regions and full utilization of the 2495-2690 MHz band in all three countries. Until revised border agreements are reached, however, BRS and EBS licenses in the border area will be conditioned on compliance with existing international agreements.

4. Geographic Area Licensing for Current Licensees

a. Adoption of Geographic Service Areas based on existing service areas

52. *Background.* Under current Commission rules, MDS auction winners are granted licenses for Basic Trading Areas (BTAs), but do not have the same flexibility to operate under those licenses as geographic licensees in other services. Under the current rules, a BTA authorization holder may not provide service within those portions of its BTA that encompass the PSA of incumbent stations and previously proposed MDS and ITFS facilities.[114] In addition, a BTA authorization holder must apply for an individual station license for each transmitter within its BTA.[115]

53. In the *NPRM*, we proposed the full implementation of geographic area licensing for MDS and ITFS licensees, noting that such licensing could increase the intensity and efficiency of use of this spectrum.[116] We noted that in other bands where we contemplated the development of mobile or other wide-area services, we concluded that geographic licensing based on predefined service areas has significant advantages over site-based licensing because of the greater operational flexibility it gives licensees and the greater ease of administration for consumers, licensees, and regulators.[117] We also noted that geographic area licensing reduces administrative burdens and operating costs by allowing licensees to modify, move, and add to their facilities within specified geographic areas without prior Commission approval. Our experience has been that such licensing affords licensees substantial flexibility to respond to market demand and may hence result in significant improvements in spectrum utilization. Based upon these observations, we sought comment on our proposal to implement geographic area licensing in the band, while protecting incumbent operations.

54. *Discussion.* We conclude that all BRS and EBS licensees will be licensed on a geographic area basis.[118] Accordingly, BRS and EBS authorization holders will be allowed to place transmitters anywhere within their defined service area without prior authorization so long as the licensee's operations comply with the applicable service rules, do not affect radio-frequency quiet zones, or require environmental review or international coordination. Implementing geographic area licensing will allow licensees to rapidly deploy and modify facilities within their geographic licensing areas to provide ubiquitous service without the regulatory burdens of notifying and securing Commission approval. Geographic area licensing for BRS and EBS will also have the benefit of eliminating inefficient, administratively burdensome site-by-site licensing rules, the transaction costs of which are too high to

[114] 47 C.F.R. § 21.924(c).

[115] 47 C.F.R. § 21.925(b).

[116] *See NPRM*, 18 FCC Rcd at 6756 ¶¶ 83-89.

[117] *See* 47 C.F.R § § 90.663 (800 MHz SMR), 101.525(a) (24 GHz), and 101.1009 (LMDS). *See also NPRM*, 18 FCC Rcd at 6756 ¶ 83.

[118] A geographic area licensing scheme will be implemented for all the band segments in the MDS and ITFS services, which includes the low-power LBS and UBS, as well as the high-power MBS.

permit competitive businesses to flourish using next generation technology. As part and parcel of geographic area licensing, we also adopt our tentative conclusion, stated in the *NPRM*, that where an existing license is canceled or forfeited, the right to operate in that area automatically reverts to the licensee that holds the corresponding BTA license,[119] which is consistent with the approach we have taken in other wireless services.[120]

55. In addition, as proposed in the *NPRM*, we will require geographic area licensees to protect the operations of both EBS incumbents[121] and BRS site-based incumbents within the incumbent's GSA as defined by this order.[122] For incumbent BRS and EBS site-based licensees, the GSA will be based upon the licensee's current PSA as provided in Sections 21.902(d)[123] or 74.903(d)[124] of the Commission's rules. For BRS BTA authorization holders, the boundaries of the GSA will be exactly the same as the current PSA pursuant to Section 21.933(a).[125] Except with respect to situations where MDS and ITFS PSAs overlap (discussed below), we did not receive many significant expressions of concern over interference resulting from this approach. Indeed, we note that many commenters such as BellSouth and SCETV support the implementation of geographic area licensing in the band.[126] Additionally, AHMLC and IMLC also support establishing the new GSAs by reference to the present transmitter location, reasoning that new

[119] *See NPRM,* 18 FCC Rcd at 6756 ¶ 86.

[120] *See, e.g.,* In the Matter of Amendment of the Commission's Rules Regarding the 37.0-38.6 GHz and 38.6-40.0 GHz bands*,* ET Docket No. 95-183, *Report and Order and Second Notice of Proposed Rule Making*, 12 FCC Rcd 18600, 18637-8 ¶ 79 (1997) *(39 GHz R&O).*

[121] *See* 47 C.F.R. §§ 74.903(d), 21.902(d). Beginning on September 15, 1995, the initial service boundaries were frozen, *i.e*., the circular PSA boundaries were not to be changed regardless of whether the licensee subsequently moved its transmitter. *Id.* An ITFS licensee's PSA includes the area within a 35-mile radius of its transmitter site plus any reception sites beyond that radius that were registered with the Commission as of September 17, 1998.

[122] We note that MDS incumbents that obtained their licenses prior to our 1996 MDS BTA auction have 35-mile PSAs around their main stations. *See* 47 C.F.R. §§ 21.902(d), 21.933(a).

[123] Section 21.902(d) provides that (1) …. each MDS station licensee shall be protected from harmful electrical interference, as determined by the theoretical calculations, within a protected service area of which the boundary will be 56.3255 kilometers *(35 miles) from the transmitter site*. (2) As of September 15, 1995, the location of these protected service area boundaries shall become fixed. The center of the circular area shall be the geographic latitude and longitude of the transmitting antenna site specified in station authorizations or previously proposed applications filed at the Commission before September 15, 1995. Subsequent transmitter site changes will not change the location of the 56.3255 kilometers (35 mile) protected service area boundaries. 47 C.F.R. § 21.902(d) (emphasis added).

[124] Section 74.903(d) provides that each authorized or previously-proposed applicant, or licensee must be protected from harmful electrical interference at each of its receive sites registered previously as of September 17, 1998, and within a protected service area as defined at § 21.902(d) of this chapter and in accordance with the reference receive antenna characteristics specified at § 21.902. 47 C.F.R. § 74.903(d).

[125] Section 21.933(a) provides that stations licensed to the holder of a BTA authorization shall have a protected service area that is coterminous with the boundaries of that BTA, subject to the exclusion of the 56.33 km (35 mile) protected service area of incumbent MDS stations and of previously proposed and authorized ITFS facilities within that BTA, even if these protected service areas extend into adjacent BTAs. The protected service area also includes registered receive sites. 47 C.F.R. § 21.933(a).

[126] *See* BellSouth Comments at 10-13; SCETV Comments at 1, 6.

filers and incumbents alike can make interference analyses by reference to present site data.[127] Moreover, Teton,[128] the Rural Commenters, and VCI[129] support the proposal to allow BTA holders to place transmitters anywhere within their service area without prior authorization so long as the operation complies with the applicable service rules, does not affect radiofrequency quiet zones or require environmental review or international coordination.[130] We agree with these commenters and will thus provide incumbents with a GSA based on their existing PSAs, subject to the exceptions discussed below.

56. In apparent misunderstanding of the geographic licensing proposal, Grand Wireless argues that expanding the current service areas for incumbent MDS and ITFS licensees to conform to the BTA system of geographical allocation intrudes upon the rights of successful MDS BTA authorization holders who obtained rights in the band through the auction process.[131] We disagree with Grand Wireless. Permitting BRS and EBS incumbents who were previously licensed using a site-by-site scheme to now use a geographic area licensing scheme which is based on the current PSA, neither extends an incumbent's service area nor impacts BTA authorization holders.

57. We note that the Coalition only advocates geographic area licensing for the low-power LBS and UBS and proposes to keep site-based licensing for high-power operations in the MBS.[132] The only justification that the Coalition offers for imposing site-based licensing requirements in the MBS channels is the "belief" that a site-based licensing requirement affords protection to site-based systems and that the protection is worth the costs of site-based licensing.[133] However, the Coalition fails to point to any unique feature of the MBS that would make geographic area licensing unworkable in that band. Furthermore, we conclude that adopting geographic area licensing would provide MBS operators with additional flexibility to coordinate spectrum usage, and allow operators to quickly adjust and react to market changes independently without Commission action. Accordingly, we adopt geographic area licensing for all operations in, and all segments of the band.

58. In light of our decision to institute geographic area licensing for BRS and EBS, we direct the Wireless Telecommunications Bureau to dismiss all pending applications to modify MDS or ITFS stations, except for modification applications that could change an applicant's PSA, or applications for facilities that would have to be separately applied for under the rules we adopt today. In light of the fact that we are initiating geographic area licensing immediately, we see no public interest in processing modification applications that are no longer necessary. We note WCA's concern that the Commission should not freeze the processing of modification applications because of possible delays in instituting service, but we believe that WCA's concern, premised on the possibility of the rules we adopt today not becoming effective until early 2005, is misguided.[134] We will entertain requests for special temporary authority in instances where operators make the necessary showing and require authority to operate prior to the effective date of the

[127] *See* AHMLC Comments at 16; Independent MMDS Licensee Coalition (IMLC) Comments at 11-12.

[128] *See* Teton Comments at 15-16.

[129] *See* Rural Commenters Reply at 3.

[130] *See* Virginia Communications Comments at 2.

[131] *See* Grand Wireless Comments at 7.

[132] *See* Coalition Proposal at 19-22, 33-34.

[133] Coalition Proposal at 33-34.

[134] Coalition Ex Parte (filed Jun. 4, 2004).

new rules.

b. Splitting of Overlapping GSAs and Out of GSA Receive Sites

59. *Background.* In recent years, the rules defining protected areas have changed or otherwise been modified in a manner that has resulted in overlapping PSAs being assigned to co-channel incumbent BRS and EBS licensees.[135] The Coalition argues that these overlap areas result in a major operational barrier to anyone operating in these areas because none of the licensees with service areas that overlap can satisfy the interference protection criteria in the overlap area.[136] According to the Coalition, the MDS and ITFS industry developed an informal method for handling this problem by drawing a boundary line through a "football"-shaped area where the PSAs intersect, with each licensee agreeing to limit the interference it generates across the boundary.[137] The Coalition urged that if we adopted the proposal to base GSAs under the new rules on licensees' existing PSAs, we formally adopt this method of handling potential interference issues where GSAs would overlap. We sought comment on the Coalition's proposal.

60. *Discussion-- Receive sites within a PSA but outside a GSA.* We conclude that the Coalition's proposed "splitting the football" approach is the best compromise to remedying the difficulties associated with overlapping GSAs. This approach is supported by many commenters in the record. HITN supports geographic area licensing and bifurcation of overlapping areas between current incumbent PSAs in order to create new, discrete geographical service areas.[138] Likewise, IMWED argues that the region within overlapping PSAs has become a "no man's land" where neither licensee is able to secure authorizations without the other's consent and this creates a prescription for gridlock and spectrum inefficiency that is cured by the GSA concept.[139] The IMLC agrees that splitting the football is an appropriate way to handle overlapping PSAs, stating that there is a real value in establishing clearly who has the rights to operate in which territories. Both AHMLC and IMLC take the pragmatic view that splitting the difference, while not ideal, provides a rough-justice solution.[140] We concur.

61. Some commenters point out that adopting the Coalition's approach could result in some incumbent facilities in overlap areas being "marooned" without protection because they are on the wrong side of the dividing line. Region 10 asserts that many incumbent ITFS licensees, including itself, will have marooned receive sites. [141] The Rural Commenters and NTCA argue that both existing transmit and

[135] Effective September 15, 1995, the Commission expanded the PSAs of incumbent site-based MDS and ITFS licensees from fifteen miles to thirty-five miles. *See* Amendment of Parts 21, 43, 74, 78, and 94 of the Commission's Rules Governing Use of the Frequencies in the 2.1 and 2.5 GHz Bands Affecting: Private Operational-Fixed Microwave Service, Multipoint Distribution Service, Multichannel Multipoint Distribution Service, Instructional Television Fixed Service, & Cable Television Relay Service, *Second Report and Order*, Gen. Docket Nos. 90-54 and 80-113, 10 FCC Rcd 7074 (1995) (*1995 R&O*). In doing so, it created a number of overlaps between licensees whose PSAs had not overlapped before the standard PSA radius was increased.

[136] Coalition Proposal at 20-21.

[137] *See* Coalition Proposal Appendix C for a detailed explanation. This approach is commonly referred known as "splitting the football."

[138] Hispanic Information and Telecommunications Network, Inc. (HITN) Comments at 10.

[139] The ITFS/2.5 GHz Mobile Wireless Engineering & Development Alliance (IMWED) Comments at 18.

[140] *See* AMHLC Comments at 16; IMLC Comments at 11-12.

[141] *See* Education Service Center Region 10 (Region 10) Comments at iii, 3-4, 9.

receive sites must be protected against harmful interference.[142] Similarly, Stanford and Northeastern believe that "splitting the football" does not necessarily take into account the service base that a station might have developed for its programming business.[143] Additionally, SCETV believes that while the Coalition approach could apply prospectively, existing receivers within the current PSAs that would not be protected under the new rules should be grandfathered to allow continued service by the original license holder.[144]

62. On balance, we conclude that reception sites that fall on the "wrong" side of the boundary as described above should not be protected. Generally, we have not protected sites outside established PSAs in other services where we have implemented geographic area licensing.[145] Moreover, mandating protection of these sites could be unduly disruptive to those licensees who have a GSA that encompasses an out-of-area receive site. Given the increasing use of low-power cellularized systems that will be serving a broader area, we believe that requiring protection of out-of-area receive sites will inhibit the development of broadband service and could make it more difficult for licensees to deploy systems. Nonetheless, we agree with IPWireless's suggestion that licensed facilities may continue to serve receive sites lying outside the GSA boundary as of the effective date of the rules on a secondary non-interference basis.[146] We further agree with AMHLC and IMLC that the Commission should also recognize voluntary agreements among parties to be protected in defining their GSAs.[147] Accordingly, we will allow marooned receive sites to be served on a secondary non-interference basis.

63. Furthermore, as explained above, we believe this is the best compromise to remedy the difficulties associated with overlapping GSAs and receive sites that fall outside a GSA. The Coalition argues that its proposal merely sustains the status quo with respect to the protection of receive sites either outside the GSA or caught on the wrong side of the chord when the football is split and the adoption of a rule that does not protect these sites will result in the loss of existing service to operators.[148]

64. To avoid future conflicts between licensees as to the actual location of the overlap area dividing line, Comspec recommends that the Commission either define the method to be utilized when calculating such boundaries, or provide a public database of the boundaries for all incumbent PSAs.[149] We conclude that neither approach is necessary. As noted above, the industry has informally resolved these boundary issues on its own for years without federal regulation. Indeed, as the Coalition explains, "the contemplated protections are merely a continuation of existing protection relationships between licensees [that] the MDS/ITFS industry has been living for two decades with rules requiring protection to both GSAs

[142] Rural Commenters Reply Comments at 4.

[143] *See* Joint Comments of Stanford and Northeastern Universities at 20.

[144] *See* SCETV Comments at 1, 6.

[145] Examples of services where service areas are defined exclusively on the basis of signal strength limits at geographic borders include the lower 700 MHz band (47 C.F.R. § 27.55(a)(2)), broadband PCS (47 C.F.R. § 24.236), Part 27 services in the 2305-2320 and 2345-2360 MHz bands (47 C.F.R. § 27.55(a)(1)), and Part 27 services in the 1390-1395 and 1432-1435 MHz bands (47 C.F.R. § 27.55(a) (3)).

[146] *See* IP Wireless Comments at 11.

[147] *See* AHMLC Comments at 16; IMLC Comments at 12.

[148] *See* Coalition Comments at 59-60.

[149] *See* ComSpec Comments at 2.

and to individual receive sites, and has done so without any of the confusion feared by the *NPRM*."[150] Comspec fails to explain why it is necessary for the Commission to micromanage this process when the record indicates that parties will continue to be able to resolve these issues on a voluntary basis.

65. We recognize that splitting the football is not a perfect solution. Rather, we agree with the Coalition that it is the best available alternative where parties are unable to reach voluntary agreements. Indeed, as noted above, we strongly encourage parties to work together on a voluntary basis and believe that such participation will ultimately result in receive site protection outside the GSA in many cases. In this regard, if incumbent licensees can reach agreements with operators on the other side of the chord, they will be permitted to provide service on the outside of their respective chords after the operating lines have been drawn. We strongly encourage such participation and are optimistic that the cooperation the MDS and ITFS industries have shared for years will persist and serve to facilitate amicable solutions to any potential difficulties.

66. *Discussion – Grandfathered receive sites outside a PSA.* Although the Coalition's states that "[t]here is no current ITFS receive site protection outside of the current PSA,"[151] we disagree. Under our current rules, all receive sites registered as of September 17, 1998 are entitled to interference protection, including registered receive sites located outside existing thirty-five mile PSAs.[152] Accordingly, we believe that we must address the issue of whether we will continue to grant interference protection to grandfathered receive sites located outside the PSA.

67. We conclude that we should not continue to provide interference protection to receive sites located outside the PSAs. As noted above, we believe that providing interference protection to receive sites outside the new GSAs could be unduly disruptive to those licensees who have a GSA that encompasses an out-of-area receive site and could hinder the deployment of new services. However, as with receive sites located inside the former PSA but outside the new GSA, we will allow continued service of such receive sites on a secondary, non-interference basis.

5. Transition to New Band Plan

a. Background

68. Generally, the Coalition recommends that we adopt a rather complex market-by-market four-phased transition approach. Although the Coalition's transition plan is described in detail in the *NPRM* of this proceeding, a brief overview of the Coalition's transition plan follows.[153] Under the Coalition's plan, the first phase of the transition involves identifying the parties that must participate in the transition.[154] To

[150] *See* Coalition Comments at 61.

[151] *See* Coalition Proposal at 59 n. 118.

[152] 47 C.F.R. § 74.903(d). We note that the Coalition asserts that there is no current ITFS receive site protection outside the PSA. *See* Coalition Proposal at 59 n. 118. The Coalition is incorrect. Although 47 C.F.R. § 74.903(a)(5) states that "[n]o receive site more than 35 miles from the transmitter shall be entitled to interference protection," this provision must be read in conjunction with the latter occurring provision in 47 C.F.R. § 74.903(d), which under certain instances allows receive site protection outside of the 35 mile PSA.

[153] *See NPRM,* 18 FCC Rcd at 6842-55, Appendix C.

[154] Coalition Proposal, Appendix B at 4, 12.

determine whether a licensee is a required party,[155] the proponent[156] seeks information by serving a "pre-transition data request" on licensees.[157] Under the second phase, planning the transition, the proponent starts the 90-day transition planning period by serving "transition notices" on licensees that are required to transition.[158] After serving the transition notice, the proponent must provide the required participants with a written plan for transitioning a given market no later than 30 days before the end of the transition planning period.[159] In response to the proponent's offer, the required participants may submit a counter proposal no later than 10 days before the end of the transition planning period.[160] Under the third phase, the proponent physically shifts educational ITFS programming tracks to spectrum in the MBS and outfits eligible ITFS receive sites with improved downconverters designed to limit the reception of signals from outside the MBS.[161] Under the fourth phase, licensees terminate existing operations in transitioned markets that do not comply with the new rules.[162] The Coalition's Plan further provides for dispute resolution procedures should the parties fail to agree on the terms of the transition.[163] In addition, the Coalition's plan contains nine safe harbors; if a proponent's offer falls into one of those nine safe harbors, it would be deemed "reasonable" in the event of a dispute between the proponent and a required participant.[164] The Coalition's plan also allows certain MVPD providers to "opt-out" of the transition.[165] Under the Coalition's plan the proponent would pay the costs for replacement downconverters for eligible ITFS receive sites, the relocation costs of ITFS licensees that wish to continue to operate downstream high-power, high-site educational video programming,[166] and the expenses of MVPD providers that elect not to participate in the transition, but whose facilities must be modified to prevent interference to licensees that are transitioning.[167] MDS licensees pay their own costs of transitioning under the Coalition's plan.[168]

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[155] Generally, under the Coalition's plan the following are required participants: (1) every licensee that has not previously been transitioned and that has a transition impact area (TIA) that overlaps the GSA in which the contemplated base station will be located; (2) every non-transitioned licensee with a TIA to which any of the contemplated facility's transmission antennas will have an unobstructed transmission path calculated assuming receive antenna heights of 9.1 meters above ground level employing a smooth earth with 413 earth curvature propagation model; and (3) every non-transitioned licensee with a GSA that overlaps the GSA of a licensee being transitioned pursuant to (1) or (2). *Id.* at 12-13.

[156] The Coalition's plan does not specify who is permitted to be a proponent.

[157] Coalition Proposal, Appendix B at 14-15.

[158] *Id.* at 16.

[159] *Id*. at 18.

[160] *Id*. at 20.

[161] *Id.* at 4.

[162] *Id.*

[163] *Id.* at 21.

[164] *Id.* at 21-27.

[165] *Id.* at 16-18.

[166] *Id*. at 4.

[167] *Id.* at 18.

[168] *Id*. at 5.

69. The Coalition's plan received both favorable and unfavorable comments. Commenters who favored the Coalition's transition plan stated that it would enable the transition to occur quickly,[169] permit multichannel video programming distributors to "opt-out" of the transition process,[170] fund the migration of ITFS licensees to the MBS,[171] and prevent "unscrupulous licensees from green mailing system operators."[172]

70. Commenters who opposed the Coalition's transition plan argue that the Coalition's transition plan would be too lengthy, too regulatory, and would invite litigation.[173] Moreover, they state that the Coalition's plan does not specify the requisite financial ability of the proponent and does not address what would happen if the proponent withdraws.[174] One commenter maintains that the Coalition's plan potentially puts in the hands of one entity the potential power to dictate to all other entities in a market how their operations must be structured.[175] One of the most significant issues, according to some commenters, is that the Coalition's transition plan would lead to "daisy chains."[176] In this connection, Spectrum Market indicates that it has performed a case study which analyzes all GSAs, the center coordinates of which are in the 28 BTAs in the Washington, D.C.-New York City Corridor. Spectrum Market's study finds, based on GSA overlap, that under the Coalition's transition plan, any proponent that desires to transition any GSA in this corridor will have to transition all of them.[177] This would be particularly difficult, Spectrum Market notes, because this corridor has a population of approximately 43 million people and 96 separate licensees with a total of 172 stations.[178] Spectrum Market asserts that its case study demonstrates that a proponent would be required to follow the Coalition's complicated procedure of obtaining information from each licensee concerning their respective facilities, developing and submitting a transition plan to all licensees, waiting, then responding to any objections, and if all objections are rectified, implementing the plan and paying the transition costs of all ITFS licensees.[179] Spectrum Market adds that if a proponent withdraws from the plan, the conversion process will be stalled. Other commenters agree with Spectrum Market. MMDS Licensees, an ad hoc coalition of MDS licensees, views the Coalition's transition plan as requiring complex reimbursement schemes, 150-mile daisy chains and other complications resulting from the voluntary market-by-market approach.[180] They assert that the net result of adopting the Coalition Plan would be to delay the transition rather than to expedite it because the parties would be embroiled in constant bickering over the terms of transition and who should be

[169] *See* Earthlink Comments at 8.

[170] *See* Teton Reply Comments at 4.

[171] Sprint Comments at 7.

[172] *Id.*

[173] *See* Grand Alliance Comments at 8; NAF Reply Comments at 30.

[174] *See* Grand Alliance Comments at 9.

[175] *See* IMLC Comments at 13-14.

[176] *See* Grand Alliance Comments at 9.

[177] *See* Spectrum Market Comments at 5 and Appendix 1 at 5-8, Exhibits 3-13.

[178] *See* Spectrum Market Comments, Engineering Statement of Carl T. Jones, Jr., Appendix 1, Exhibit 2.

[179] Spectrum Market Comments at 6.

[180] MMDS Licensee Coalition ("MMDS Licensees") Comments, filed November 14, 2002, at 3.

responsible for what costs.[181]

71. Other commenters supported other options mentioned in the *NPRM*. For instance, several commenters supported the adoption of a three-phase transition plan, which involves a voluntary negotiation period, a mandatory negotiation period, and a mandatory relocation.[182] IP Wireless supports either the three-phase transition plan or mandatory negotiation with a two-year deadline to complete the transition.[183] IMLC recommended that the transition plan should be based on the top 30-markets, with a deadline imposed.[184] Intel stressed the need for the transition process to be predictable to create an attractive environment for innovation and investment, thus offsetting the long lead times that are needed for research and development of new technologies.[185]

b. Discussion

72. We adopt the Transition Plan, detailed below, which we believe will enable us to achieve our goal of transitioning the band quickly and will be fair and equitable to all parties concerned. In this regard, we emphasize that under the plan we adopt today, EBS licensees will receive spectrum in the new band plan that is comparable to the spectrum they currently hold in terms of throughput and therefore we believe that they will not be negatively affected by reduced capacity. Moreover, we further emphasize that licensees that have four interleaved 6-MHz channels and four interleaved 125 kHz "I" channels will, under the new band plan, receive 16.5 MHz of contiguous spectrum in either the LBS or UBS, a 6-MHz channel in the MBS, and 1 MHz of contiguous spectrum in either the "J" or "K" bands. Thus, for instance, a licensee on the interleaved "A" group channels will receive 16.5 MHz of spectrum from 2502 to 2518.5 in the LBS and a 6-MHz channel in the MBS, whereas a licensee on the interleaved "E" group channels will receive 16.5 MHz of contiguous spectrum from 2624 to 2640.5 MHz in the UBS and a 6-MHz channel in the MBS. We further note that the new band plan provides space for MDS 1 and MDS 2 licensees, thus co-locating all MDS licensees. The spectrum assignments for the remaining channels are detailed above.[186] We recognize that during the transition process, in addition to being relocated from their current channel locations to their new spectrum blocks, licensees may, for a variety of reasons, wish to transfer, assign, partition, disaggregate, or lease their spectrum to meet the needs of their customers and/or to facilitate the transition of a particular Major Economic Area (MEA).[187] In the *FNPRM* attached to this *Report and Order*, we seek comment on ways to streamline our administrative processes to further facilitate the transition of the 2.5 GHz band in an effective and efficient manner. Also in connection with the transition, we emphasize that there is a relationship between the transition, the new band plan, and the technical rules for EBS and BRS licensees. Generally, the LBS and the UBS will be used for low-power cellularized services whereas the MBS will be used for high-powered services. The rules provide,

[181] *Id*.

[182] *See* Rural Commenters Comments at 4.

[183] IP Wireless Comments at 12.

[184] IMLC Comments at 16.

[185] Intel Comments at 7.

[186] *See* paras. 37-44, *supra*.

[187] There are fifty-two MEAs, which are comprised of one or more Economic Areas. Additionally, there are three EA-like areas: Guam and Northern Mariana Islands; Puerto Rico and the U.S. Virgin Islands; and American Samoa. *See* 47 C.F.R. § 27.6(a)

however, that licensees may offer low-power service in the MBS and high-power service in the LBS and UBS if the licensee can reach an agreement with neighboring licensees. For instance, in a particular market where an MVPD provider uses the entire BRS/EBS spectrum, it may seek consent agreements with licensees in neighboring Major Economic Areas (MEAs) to continue their high-powered operation in the LBS and UBS. Similarly, the rules allow low-power operations in the MBS if the licensee can reach an agreement with other licensees concerning interference from high-powered operations. Thus, the rules we adopt today permit licensees the flexibility to meet the demands of a particular market. The Transition Plan we adopt also requires the proponent to ensure that incumbents occupying the spectrum designated for MDS 1 and 2 in the 2.5 GHz band be relocated to provide space for MDS 1 and 2 licensees in the 2.5 GHz band. Lastly, the Transition Plan provides for the replacement of comparable facilities for EBS licensees.

73. In light of the comments that the Coalition's plan would be too lengthy, too regulatory, and would invite litigation if adopted,[188] we adopt the Transition Plan that we believe, retains the essential framework of the Coalition's proposal and provides flexibility to both the proponent and incumbent licensee. Ultimately, we conclude that the Transition Plan we adopt is in the public interest because it will create an attractive environment for innovation and investment in the 2496-2690 MHz band. We also believe that the transition represents an efficient means of managing the transition and managing the spectrum.

74. The Transition Plan we adopt has five phases, as follows: (1) initiating the transition process by filing a Initiation Plan with the Commission; (2) planning the transition; (3) reimbursing the costs of the transition; (4) terminating existing operations in transitioned markets; and (5) filing the post-transition notification. In the first phase, initiating the transition, a proponent, through a pre-transition data request, gathers information from BRS and EBS licensees in a given MEA, which the proponent uses to draft a Transition Plan. Under the first phase, a proponent initiates a transition by filing specified information in a document called an Initiation Plan with the Commission. Also during the first phase, a proponent notifies the BRS and EBS licensees in the MEA that the proponent will initiate a transition. During the second phase, planning the transition, the proponent sends each BRS and EBS licensee a proposal, called the Transition Plan, which not only identifies all of the licensees that will be transitioned and explains the details of the transition, but also marks the start of the phase of the transition where the proponent and the individual licensees negotiate over the details of the transition. Because disputes may arise during this phase, we have adopted two safe harbors in which we indicate that we believe that the proponent's offer is reasonable. After the proponent has reached an agreement with individual licensees, the third phase begins. During this phase, the proponent physically shifts the EBS programming tracks to new channels and outfits eligible EBS reception sites with improved downconverters. During the fourth phase, the licensees cease their current service offerings. During the fifth phase, the proponent and affected BRS and EBS licensees file a notification with the Commission that the transition has been completed. These phases are further discussed in detail below. We note that licensees may continue to operate under the current rules until the transition occurs.

75. *Exclusions*. Before addressing the particulars of our Transition Plan, however, we note that we have concluded not to adopt the Coalition's recommendation to allow certain licensees to "opt-out" of the transition.[189] Under the Coalition's Plan, an MVPD licensee is permitted to "opt-out" of the transition if it certifies within 30 days of the effective date of the rules that it or its affiliate is a multichannel video

[188] *See* n.173, *supra*.

[189] *See* Coalition Proposal, Appendix B at 17-18.

programming distributor ("MVPD") as defined in Section 522 of the Act and, as of the date of its certification, it provides MVPD service to five percent or more of the households within its GSA, and must certify again at the start of the transition that it still provides service to five percent or more of the households within its GSA. The Coalition's plan also allows any MDS or ITFS licensee that is collocated with any qualified MVPD licensee that elects to opt-out may also opt-out the transition.

76. While we note the successful deployment of MVPD service by licensees such as W.A.T.C.H. T.V.[190]and Sioux Valley Wireless,[191] we believe that adopting the Coalition's proposal to allow MVPD licensees that meet the requirements detailed above to "opt-out" of the transition needlessly complicates the transition process and is unnecessary to protect MVPD licensees, especially those that are currently using the entire BRS/EBS spectrum. We are particularly concerned, moreover, that the adoption of a blanket "opt-out" for high-powered MVPD licensees may result in interference to licensees in neighboring population centers, which would prevent these neighboring locales from receiving wireless broadband services under the rules adopted today. Moreover, we believe that existing MVPD providers could be accommodated under the Transition Plan we have adopted today. An MVPD provider would be free to be a proponent in its MEA. To the extent an MVPD provider was only interested in transitioning a portion of an MEA, it could become a joint proponent with other entities that were interested in transitioning other portions of the MEA.

77. Notwithstanding our decision not to adopt the Coalition's proposed opt-out for MVPD providers, we are sympathetic to the predicament of those MVPD licensees that developed successful businesses under the old rules, and to their customers that receive both video and broadband services from those MVPD licensees. We are also sympathetic to those BRS licensees that have a viable business for high-powered operations, but who need more that seven digitized MBS channels to deliver service to their customers, which would constitute all of the high-power spectrum in the 2.5 GHz band. Therefore, we find that it is in the public interest to consider waivers on a case-by-case basis for those operators or their affiliates that meet the definition of a multichannel video programming distributor as defined in Section 522 of the Communications Act of 1934, as amended and that provide MVPD service to five percent or more of the households within their respective GSAs, the calculation made in accordance with the requirements Section 76.905(c) of the Commission's Rules.[192] We further find that it is in the public interest to consider waivers for any BRS or EBS licensee that is co-located with any qualified MVPD licensee that elects to opt-out may also opt-out the transition. We further find that it is in the public interest to consider waivers for those BRS licensees that have a viable business for high-powered operations, but who need more than seven digitized high-powered MBS channels to deliver their service to their customers. In reviewing requests to waive the rules adopted today, we will consider the actions taken by MVPD or BRS licensees to minimize the affect of interference on neighboring markets, as well as the licensee's explanation as to why it cannot work within the transition rules we have adopted. Waivers will be granted if it is shown that: (i) the underlying purpose of the rules(s) would not be served or would be frustrated by application to the instant case, and that a grant of the requested waiver would be in the public

[190] WATCH T.V. Company (WATCH TV) provides over 200 channels of digital video and audio service to over 13,000 subscribers by using and reusing every megahertz available to it in the 2150-2162 MHz band and in the 2500-2690 MHz band in Lima, Ohio. WATCH T.V. Company *Ex Parte*, filed June 1, 2004 at 1.

[191] Sioux Valley Wireless uses 33 MDS and ITFS channels in the Sioux Falls, South Dakota Basic Trading Area to deliver a combination of video and broadband wireless internet services to over 6000 mostly rural subscribers. Sioux Valley Wireless, *Ex Parte*, filed June 1, 2004.

[192] 47 CFR § 76.905(c).

interest; or (ii) in view of the unique or unusual factual circumstances of the instant case, application of the rule(s) would be inequitable, unduly burdensome or contrary to the public interest, or the applicant has no reasonable alternative.[193]

(i) Initiating the Transition Process

78. Under the rules we adopt today, the first phase of the transition consists of initiating the transition process. This phase begins on the effective date of the rules adopted in this *Report and Order* and lasts for a maximum of three years. During this three-year period, a proponent or multiple proponents, BRS or EBS licensees or EBS lessees, initiate a transition by filing an Initiation Plan with the Commission. Furthermore, the proponent or multiple proponents must transition the 2.5 GHz band by MEA. During this phase of the transition and before filing the Initiation Plan with the Commission, the proponent or multiple proponents must send a pre-transition data request and a transition notice to all affected licensees in a given MEA. We emphasize that the three-year deadline is a maximum deadline and that a proponent or joint proponents may shorten the duration of this phase of the transition process. These requirements are explained in more detail below.

79. As mentioned above, a transition is initiated by a proponent, which will generally be either a current BRS or EBS licensee or EBS lessee. To enable the 2500-2690 MHz band to be transitioned in an efficient manner and to give flexibility to proponents, however, we have concluded to permit more than one proponent to initiate a transition in a given MEA. Moreover, when a BTA-holder is a proponent and the BTA is in more than one MEA, the BTA-holder may elect to be the proponent of only one MEA or may elect to transition two or more MEAs that overlap the proponent's BTA.

80. We stress that more than one proponent may transition a particular MEA. Thus we do not believe that our decision to transition by MEA would be burdensome to proponents. On the contrary, we believe our decision strikes a balance between the goals of a proponent to transition by GSA or Transition Impact Area (TIA) (defined as a station's GSA, plus in the case of ITFS licensees, the specific location of ITFS reception sites that are certified as eligible to receive a new downconverter under the transition rules)[194] and our goals to ensure the efficient utilization of spectrum and the development of new and innovative wireless services throughout the United States. Moreover, we believe that our decision to allow multiple proponents to transition a given MEA promotes flexibility by allowing proponents to team up to transition a given MEA. We note that BRS and EBS licensees and EBS lessees have several options. Under the first option, they can become a proponent and take primary control of transitioning the MEA. Under the second option, they can become a proponent and seek other proponents to assist in transitioning a particular MEA, which will reduce costs to each individual proponent. Under the second option, the multiple proponents must agree on how they will transition a particular MEA and this agreement must occur before the proponents file the Initiation Plan with the Commission. Multiple proponents may divide the MEA in any manner that suits their needs. At the end of the transition, however, the entire MEA must be transitioned to the new band plan or consents received from neighboring licensees. Under the third option, the BRS or EBS licensee or EBS lessee may wait for another licensee to step forward as the proponent. A licensee that selects the third option would wait to receive the Transition Plan from the proponent and then either accept the Transition Plan or make a counteroffer.

81. Licensees operating in MEAs for which an Initiation Plan has not been filed with the

[193] 47 C.F.R. § 1.925(b)(3).

[194] *See* Coalition Proposal, Appendix B at 12-13 n.34.

Commission within three years, may continue to operate until they are transitioned by another method determined as a result of the *FNPRM* attached to this *R&O*. In markets where no transition plan is filed, we will not require licensees to cease existing operations until at least eighteen months after the deadline for proponents to file initiation plans. Under any alternative transition scenario we adopt, we contemplate that it would take most or all of the 18-month period to institute the transition mechanism we adopt, conduct any necessary auctions, and have any new licensee ready to offer service. We believe that establishing this date will provide a measure of certainty to licensees and allow licensees to plan for the future. Beyond that date, licensees will know that they face the possibility of having to discontinue operations.

82. We believe that transitioning the band by MEA, instead of by market area, will enable a proponent or proponents to transition large areas of the country at once, which will ensure that the 2500-2690 MHz band is transitioned quickly and will enable the provision of new and innovative services for all Americans, including those in rural areas. We therefore decline to adopt the first phase of the Coalition's plan, which they called "identifying the parties to the transition process." We believe that the adoption of the first phase of the Coalition's plan where a single proponent would transition an area based on a station's GSA and/or TIA, would result in a haphazard transition on a nationwide basis. Under the Coalition's plan, which does not propose a time frame for initiating a transition, some areas of the country might not be transitioned for many years. We conclude that transitioning the band by MEA instead of on a market-by-market basis selected by the proponent will result in a quicker and more even transition of the band throughout the nation and enable the development of new and innovative wireless services. We further conclude that transitioning the band by MEA will lead to the development of a rational market for spectrum in the 2500-2690 MHz band, thus allowing prospective licensees and lessees to develop a predictable business strategy. We note that there are fifty-two MEAs, which are comprised of one or more Economic Areas. 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. We further note that we incorporated the docket of an ongoing Commission proceeding regarding possible BRS and EBS service in the Gulf of Mexico.[195] At this time, we have concluded to defer any consideration of transitioning the MEA associated with the Gulf of Mexico, because we are seeking comment on a variety of issues concerning the Gulf of Mexico service area in the *Further Notice of Proposed Rulemaking* attached to the *Report and Order*.

83. Thus, in light of the record on this point, and in conjunction with our decisions to transition the 2500-2690 MHz band by MEA and to allow more than one proponent to transition a given MEA, we further conclude to require a proponent(s) to initiate a transition within three years of the effective date the rules adopted in the *Report and Order*. We believe that three years is an adequate amount of time to distribute a pre-transition data request and a transition notice and to determine whether to transition a particular MEA. Although we believe that three years is ample time for a proponent(s) to initiate a transition, we believe that a transition will not be initiated for all MEAs within this time frame. Consequently, if a transition is not initiated within three years of the effective date of the rules, we conclude that we will use another method of transitioning an MEA. We note that we are seeking comment on alternative methods in the *NPRM* attached to this *Report and Order* for transitioning these MEA(s).

[195] Amendment of Parts 21 and 74 of the Commission's Rules With Regard to Licensing in the Multipoint Distribution Service and in the Instructional Television Fixed Service for the Gulf of Mexico, WT Docket No. 02-68, *Notice of Proposed Rulemaking*, 17 FCC Rcd 8446 (2002) (*Gulf Notice* or *Gulf of Mexico MDS NPRM* or *Gulf NPRM*). That proceeding was incorporated alongside the *NPRM* in this proceeding. *NPRM*, 18 FCC Rcd at 6759 ¶ 91.

84. *The Pre-Transition Data Request.* To assist potential proponents in assessing whether to transition an MEA, and in light of the fact that all of the necessary information is not publicly available in the Commission's records, we believe that it is necessary for licensees within an MEA to provide certain information to a potential proponent(s). In this connection, we conclude that prior to commencing a transition, a potential proponent(s) of a given MEA may request information from EBS and BRS licensees. Before requesting this information from BRS and EBS licensees, the proponent(s) must provide the following information to the recipients of the Pre-Transition Data Request: the proponent(s)'s full name, postal mailing address, contact person, e-mail address, and phone and fax number. A recipient of a Pre-Transition Data Request must provide the following information to the potential proponent(s): (1) a listing that identifies the location (by street address and 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 upon transition (see discussion of eligibility for a replacement downconverter below); (2) whether the downconverter is mounted on a structure attached to the building or on a free-standing structure; (3) the approximate height above ground level of the downconverter; (4) the adjacent channel D/U ratio that can be tolerated by any receiver(s) at the receive site, if known; and (5) the number 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. A proponent(s) must file an Initiation Plan after it has assessed the information in the pre-transition data request and decides to transition an MEA.

85. *The Transition Notice.* The next step in the transition for a given MEA occurs when the proponent(s) serves Transition Notices to all BRS/EBS licensees within a given MEA. Accordingly, the proponent(s) must serve Transition Notices on EBS licensees before the proponent files the Initiation Plan with the Commission. The proponent(s) must include in the Transition Notice, the proponent(s)'s full name, postal mailing address, contact person, e-mail address, and phone and fax numbers, identify the other BRS/EBS licensees that will be transitioned, and provide copies of the most recent response to a Pre-Transition Data Request for each participant in the process. The Transition Notice must contain a certification by the proponent(s) to the recipient and to the Commission that it has the funds available to pay the reasonably expected costs of the transition based on the information contained in the Pre-Transition Data Request responses. These requirements are consistent with the Coalition's recommendations and we believe are necessary to ensure the orderly and rapid transition of the 2500-2690 MHz band in a given MEA.

86. *Initiation Plan*. To determine when a transition has been initiated and to determine if it has been initiated within three years of the effective date of the rules, we have concluded to require a proponent(s) to file an Initiation Plan with the Commission. An Initiation Plan consists of the following information. First, the proponent(s) must identify the MEA or MEAs that will be transitioned. Second, the proponent(s) must identify, by call sign, all of the BRS and EBS licensees that are being transitioned. Third, the proponent(s) must have concluded an engineering analysis on transitioning all BRS and EBS licensees in a given MEA. Fourth, the proponent(s) must indicate when the transition will be completed. Fifth, if the engineering analysis indicates that licensees in an adjoining or adjacent MEA must be transitioned to avoid interference with licensees being transitioned, the proponent(s) must indicate that an agreement with the proponent(s) of the adjoining or adjacent MEA has been reached on transitioning those licensees. Instead of reaching an agreement with the proponent(s) of the adjacent or adjoining MEA, the proponent(s) may indicate an alternative means of transitioning these licensees in the adjoining or adjacent MEA.[196] Sixth, when there are two or more proponents that are transitioning the same MEA, the

[196] In those instances where there is no proponent in an adjoining MEA, and operations in that adjoining MEA would cause interference in the proponent's MEA, the proponent must also transition the interfering facilities in the adjoining MEA to resolve the interference problem.

proponent(s) must indicate that they have reached an agreement on how a given MEA will be transitioned. Seventh, the proponent(s) must certify that it has the funds to pay the reasonably expected costs of the transition based on the information contained in the Pre-Transition Data Request (see below for a discussion of the Pre-Transition Data Request). Eighth, the proponent(s) must indicate that it has sent Transition Notices to all of the BRS and EBS licensees in the MEA (See discussion below or Transition Notices.) Once all of this information is filed, the proponent(s) or proponents have initiated a transition in a given MEA on the date the information is filed with the Commission.

87. As mentioned above, the Initiation Plan must be filed with the Commission within three years of the effective date of the *Report and Order*. A proponent or proponents may withdraw from the Initiation Plan by formally informing all of the BRS and EBS licensees that were included in the Initiation Plan that the proponent(s) will no longer transition the MEA, and by amending the Initiation Plan filed with the Commission. A proponent(s) that decides to withdraw an Initiation Plan may not then seek to transition that MEA at a future time. Should a proponent(s) withdraw from the Initiation Plan and there is no other proponent(s) to take its place or no proponent(s) seeks to transition a given MEA within the three-year initiation period, the Commission may use another method to transition a given MEA. In the *Further Notice of Proposed Rulemaking* attached to this *Report and Order*, the Commission seeks comment on other methods to transition a given MEA.

(ii) The Transition Plan

88. *The Transition Plan.* The Transition Planning Period is the ninety-day period that commences on the day after the proponent(s) files the Initiation Plan with the Commission. No later than thirty days prior to the conclusion of the Transition Planning Period, the proponent(s) must provide a Transition Plan to all the licensees in a given MEA. The Transition Plan must identify the call signs of the stations that will transition to the new band plan, the specific channels that each will receive following the transition,[197] the receive sites at which replacement downconverters will be installed, the video programming and data transmission tracks that will be migrated to the MBS, the technical configuration of the MBS facilities, and the approximate time line for effectuating the transition and ceasing operations pursuant to the current band plan. The Transition Plan must include plans for relocating the EBS and BRS incumbents from spectrum that has been redesignated for MDS 1 and 2 under the rules adopted today. We note that 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 and that the proponent must coordinate with each EBS licensee to minimize the extent of any disruption. The timeline for completing the transition may not exceed 18 months from the conclusion of the Transition Planning Period or, in the event that the transition is delayed pending dispute resolution, the resolution of any dispute. The Transition Plan must also provide for the establishment of an escrow or other appropriate mechanism for ensuring completion of the transition in accordance with the Transition Plan. These requirements are generally consistent with the recommendations of the Coalition and will enable the parties to the transition be to fully informed of the overall effect of the transition on their operations and on the operations of their neighbors.

89. *Counterproposals to the Transition Plan.* No later than ten days before the conclusion of the Transition Planning Period, affected licensees may submit a counterproposal to the proponent(s) if they believe that the Transition Plan is unreasonable. If a timely filed counterproposal is received, the proponent(s) may accept the counterproposal and modify the Transition Plan accordingly or invoke dispute resolution procedures for a determination of whether the Transition Plan is reasonable. We note that the proponent would have two options should it decide to seek dispute resolution. First, the proponent(s)

[197] Under § 27.5(i)(2) of the rules we adopt today, we identify post-transition frequency assignments for licensees.

could take no action to transition the MEA until the dispute is resolved. Second, the proponent(s) could continue to transition the MEA while it awaits the results of the dispute resolution process. If a proponent(s) modifies a Transition Plan based on the counterproposal of a BRS or EBS licensee, the proponent(s) must send the modified Transition Plan to all affected BRS and EBS licensees in the MEA. In this connection, we encourage the use of Alternative Dispute Resolution procedures to resolve disputes that may arise in an equitable and fair manner. While we expect that parties will be able to work out disputes amongst themselves, we reserve the right to determine whether transition plans comply with our rules.

90. *Safe harbors.* To establish an orderly and quick transition of the 2500-2690 MHz band, we adopt two safe harbors. If a proponent(s)'s offer falls under either of these safe harbors it shall be deemed reasonable in the event of a dispute. We decline, however, to adopt all nine safe harbors[198] that were recommended by the Coalition. Several of the proposed safe harbors proposed by the Coalition are designed to meet the conditions of specific markets. Because these safe harbors would not be generally applicable throughout the nation, we conclude that they are inappropriate to be included in our rules. We have limited the adoption of safe harbors to those that we believe are of general applicability, which are the Coalition's safe harbors numbers 1 and 2. Rather than adopt safe harbors numbers 6 and 7, we have incorporated the key principle of these safe harbors into the Transition Plan (see Transition Plan discussion above) and subject to negotiation between the proponent(s) and the licensees being transitioned. We, however, do not adopt, whether explicitly or implicitly, the Coalition plan's safe harbors numbers 3, 4, 5, 8, and 9, because they are not of general applicability.

91. *Safe Harbor # 1.* This safe harbor may apply when the default high-power channel assigned each channel group is authorized to operate after the transition with the same transmission parameters (coordinates, antenna pattern, height of center of radiation, EIRP, etc.) as the current downstream facilities authorized for the channel group. We agree with the Coalition that there may be situations that arise where minor changes to the operating parameters are necessary to accomplish the transition. Thus a neighboring co-channel or adjacent channel licensee may not object to any change from the default configuration if: (1) the change is not a major modification; or (2) the change is a major modification and the Transition Plan calls for the appropriate application for Commission consent to be filed, for it to be processed in accordance with the procedures assuring public notice and an opportunity to object, and for it to be granted prior to implementation. The EBS licensee being migrated may not object to a Transition Plan that proposes affording the EBS licensee with post-transition operating equipment that is as good as or better than that used before the transition. Provided that the proponent(s) is not proposing 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) and provided further that the minimum D/U benchmarks discussed above will be achieved, the proponent(s) may in the Transition Plan propose:

- 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).

- A change in the EIRP of the transmission system of up to 1.5 dB in any direction.

- Digitization, precision frequency offset, or other upgrades to the EBS transmission or reception systems that allow the proponent(s) to invoke more advantageous interference

[198] *See* Coalition's Proposal, Appendix B at 21-27, for a description of the Coalition's nine safe harbors.

protection requirements applicable to upgraded systems.[199]

92. *Safe Harbor # 2.* This safe harbor may apply when an EBS licensee has channel-shifted its single video programming or data transmission track to spectrum licensed to another licensee. Under the transition rules, that track must be on the high-power channel licensed to the EBS licensee upon completion of the transition. For example, the A Group licensee might have shifted its EBS video programming to channel C1. If one of the A Group channels is currently licensed with technical parameters substantially similar to those of channel C1, we should allow a Transition Plan to call for high-power channel A4 to be licensed with the same technical parameters as current channel C1. However, if the current A Group channels are licensed to operate with technical parameters materially different from those of channel C1, the proponent(s) has two options. First, it may 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 current channel C1) in exchange for channel A4. Second, the proponent(s) may arrange for high-power channel A4 to operate with transmission parameters substantially similar to those of current channel C1 (see Safe Harbor # 1).[200]

(iii) Reimbursement Costs of Transitioning

93. Although several commenters recommend that both MDS and EBS incumbents should pay their own transition costs, we conclude that given the difficulties EBS licensees face in obtaining funding to transition their services, it is in the public interest for a proponent(s) to pay the costs of transitioning EBS licensees and providing comparable facilities.[201] Thus, we agree with the Coalition that the proponent(s) must bear the costs of protecting EBS licensees that choose to continue to operate high-power high-site downstream video and data distribution systems against interference from LBS and UBS cellularized operations. In this connection, we note that there are two responsibilities toward these licensees, which are discussed below. We further conclude that BRS licensees must bear their own expenses in transitioning to the new band plan and complying with the new rules. We disagree with the Coalition, however, that the proponent(s) should pay the costs to modify the facilities of MVPD providers that opt-out[202] because we have not adopted the Coalition's proposal to allow MVPD providers to opt-out of the transition.

(a) Replacement Downconverters for former ITFS licensees

94. To protect against interference from cellularized services in the LBS and UBS, the proponent(s) must install at every eligible EBS receive site a downconverter designed to minimize the reception signals from outside the MBS. As part of the transition process, a proponent(s) must replace an EBS receive site if (1) a reception system was installed at that site on or before the date the EBS licensee receives its Pre-Transition Data Request (see discussion above); (2) the reception system was installed by or at the direction of the EBS licensee; and (3) that reception system is either actually used to receive EBS programming that comports with former Section 74.931(a)(1) of the Rules or is located at a cable

[199] Coalition Proposal, Appendix B at 21-22.

[200] *Id.,* Appendix B at 22-23.

[201] *See* IP Wireless Comments at 12.

[202] Under the Coalition's Plan the proponent pays for the costs to modify the facilities of MVPD providers that elect not to transition if a modification is necessary to protect other licensees that are transitioning. *See* Coalition's Proposal, Appendix B at 18.

television system headend and the cable system relays such EBS programming. Only EBS receive sites within the licensee's thirty-five mile radius PSA circle are eligible to receive replacement downconverters. The details of the replacement of the downconverters will occur during the Transition Planning Period, which is discussed above.

95. The replacement downconverters must satisfy the following minimum technical characteristics:

- 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;
- The downconversion process must not invert frequencies;
- The nominal gain of the downconverter must be 32 dB, or greater;
- 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;
- 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;
- 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 cross all in-band frequencies and across its entire intended operating temperature range;
- 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 for former ITFS licensees

96. The proponent(s) must provide, at its cost, to each former 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 programming or data transmission track the licensee is currently transmitting on a simultaneous basis. To be eligible for migration, a program track must contain EBS programming that complies with former Section 74.931(a)(1) of the Commission's Rules. Only programming tracks being transmitted on December 31, 2002 or within six months prior thereto should be migrated at the proponent(s)'s cost. Each eligible programming track must be migrated to spectrum in the MBS that will be licensed to the affected EBS licensee at the conclusion of the transition. The proponent(s)'s Transition Plan must provide for the MBS channels to be authorized to operate with transmission parameters that are substantially similar to those of the licensee's current operation. In addition, 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:

97. *Co-channel D/U Ratio.* In cases where the post-transition desired signal is transmitted using analog modulation, the actual co-channel D/U ratio measured at the output of the reception antenna must be at least the lesser of (i) 45 dB; or (ii) the actual pre-transmission D/U ratio less 1.5 dB. In cases where the post-transition desired signal will be transmitted using digital modulation, the actual co-channel D/U ratio measured at the output of the reception antenna must be at least the lesser of (i) 32 dB; or (ii) the pre-transition D/U ratio less 1.5 dB. Where in implementing the Transition Plan the proponent(s) deploys precise frequency offset in an analog system, the minimum co-channel 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 Hz (or better) stability.

98. *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

99. To prevent a proponent(s) from incurring all of the costs associated with transitioning an MEA, we conclude that former MDS licensees must pay the costs of their own transition. We believe that the cost-sharing rules we adopt are not only equitable but will promote the rapid transition of the 2500-2690 MHz band.

(d) MVPD Costs

100. As we noted above, we do not require the proponent(s) to pay the expenses of MVPD providers.

(iv) Terminating existing operations in transitioned markets.

101. In the process of transitioning from the old band plan to the new band plan, licensees will be required to cease their current service offerings before they are in a position to begin new services under the new band plan. In light of our decision to eliminate the discontinuance of service rules, licensees that are subject to transition will not be in jeopardy of losing their licenses during the transition period. We note that in the *Further Notice of Proposed Rulemaking* attached to this *Report and Order*, we seek comment on the performance requirements that we should adopt for the 2500-2690 MHz band once it is transitioned. We emphasize, however, the licensees should minimize disruption of service to their customers and should notify their customers when service will be disrupted and for how long.

(v) Filing the post-transition notification.

102. The proponent(s) and the affected licensees must jointly file a notification with the Commission providing information that the transition has been completed and that the licensees are operating according to the rules adopted today. Specifically, the notification must provide the identification of the licensees that have transitioned to the band plan adopted today and the specific frequencies on which each licensee is operating. In addition, for each MBS station, the notification must provide the following information: the station coordinates, the make and model of each antenna, the horizontal and vertical pattern of the antenna, the EIRP of the main lobe, orientation and height of antenna center of radiation, transmitter output power, and all line and combiner losses. The proponent(s) must provide copies of the post-transition notice to all parties to the transition. As mentioned above, consistent with the eligibility restrictions on EBS spectrum, we believe that licensees operating in the same geographic area may wish to "swap" or "trade" spectrum with another licensee to be able to create paired spectrum or for some other reason. In essence, we believe that many licensees will seek to transfer, assign, partition, disaggregate, or lease their spectrum to meet the needs of a particular area. In order for the Commission to facilitate these transactions and the transition of the 2.5 GHz band to the new band plan, we seek comment on ways to streamline administrative procedures in the *FNPRM* attached to this *Report and Order*.

(vi) Bureau Reports

103. As noted above, our goal is a swift transition to the new band plan so that consumers can

receive the benefits of new and modified wireless broadband services to be offered in the revised band. We will monitor closely the transition of this band and will take additional action if the rules and procedures set forth in this *Report and Order* are not sufficient to facilitate this transition. To that end, we direct the Bureau to report to the Commission on the status of the transition of the 2.5 GHz band at eighteen months, three years and five years after the effective date of the rules adopted in this *Report and Order*. The reports at this timeframe will take into account the Initiation Plans filed by the proponents with the Commission, up to the three-year deadline for proponents to initiate the transition process, and we look forward to the initiation of transition plans in a substantial number of markets. The five year report will take into account the notification information filed by affected licenses after the transitions are complete.

B. Technical Issues

104. In this section, we address technical proposals to enhance the Services. We sought comments on these issues as well as suggestions concerning other technical rule changes that may be of benefit to the Services.

1. Signal Strength Limits at Geographic Service Area Boundaries

a. Power Limits in the LBS and UBS

105. In the *NPRM*, we sought comment on the signal strength limits to apply at geographic area boundaries. We noted that we recently reallocated forty-eight megahertz in the lower 700 MHz band (broadcast television channels 52-59) to fixed and mobile services while allowing continued provision of broadcast services in the band on a secondary basis, and limited the permissible signal strength at service area boundaries to 40 dBμV/m, the same signal strength limit that we adopted earlier for the upper 700 MHz band and the 800-MHz EA-based and 900-MHz MTA-based SMR services.[203] By comparison, our rules apply a somewhat higher 47 dBμV/m limit at the GSA boundaries for broadband PCS,[204] and for Part 27 services in the 1390-1395, 1432-1435, 2305-2320 and 2345-2360 MHz bands.[205] In all of those cases, the allowed signal strengths are compatible with the provision of low-powered cellular services in adjacent service areas. We tentatively concluded to follow the same general standard in this proceeding but sought comments on any unique characteristics of the 2500-2690 MHz band that might warrant a different approach.

106. After reviewing the comments in this proceeding, we adopt our tentative conclusion to limit signal strengths to 47 dBμV/m in the LBS and UBS, at the geographical service area boundaries. Imposing a signal strength maximum at a licensee's service area boundary is a tried and true mechanism for managing and limiting co-channel interference as well as defining rights, obligations and expectations of all licensees in the band. This boundary signal strength will also facilitate coordination between co-channel licensees in adjacent areas. Furthermore, as discussed above, this limit is consistent with other signal limits for other similar services.

107. Fixed Wireless Holdings and Nextnet Wireless oppose the 47 dBμV/m limit and suggest that we retain the current -73.0 dBW/m² limit at the PSA. FWH argues that the incompatibility between

[203] *See Lower 700 MHz Band R&O*, 17 FCC Rcd at 1070 ¶ 119. This limit is codified at 47 C.F.R. § 27.55(a)(2).

[204] 47 C.F.R. § 24.236.

[205] 47 C.F.R. § 27.55(a)(1) and (3).

high-power and low-power, cellular type systems, sharing the same EBS and BRS frequencies is undisputed. Therefore the Commission should resolve this issue by adopting a uniform signal strength limit for all stations across-the-spectrum. They further argue that retaining the -73.0 dBW/m² limit would offer licensees the needed flexibility to deploy high-speed services, and further suggest that licensees can coordinate and agree on alternative signal strengths at the boundaries of the licensee's GSA. With regard to the LBS and UBS, we are not persuaded by FWH and Nextnet's arguments because they have not demonstrated that low-power stations in these band segments could not provide an adequate service with the proposed 47 dBμV/m signal.

108. However, we do agree that we should retain the -73.0 dBW/m² limit for operations in the MBS where we expect high-power operations to continue. Accordingly, the -73.0 dBW/m² limit in the MBS will be retained because it provides adequate service for high-power stations operating in the MBS.[206] Therefore, we will adopt the 47 dBμV/m limit at the boundaries of the licensee's GSA for the LBS and UBS as proposed by the Coalition, and we will retain the -73.0 dBW/m² limit at the PSA boundaries for stations operating in the MBS.

109. We are, however, sensitive to FWH and Nextnet's concerns about providing adequate service to customers and students near a GSA border. In certain circumstances, a licensee may need to exceed the prescribed power levels at its GSA boundary in order to efficiently serve customers or students near the border. Given the importance of ensuring the ubiquitous availability of broadband services, and the fact that many licensees will want to be able to provide service as soon as possible in order to gain a competitive advantage, we will grant limited relief of the power limits at the GSA border. Specifically, in those instances where there is no neighbor licensee that is constructed and providing service to customers or students,[207] we will allow a licensee to exceed the prescribed power limit at the GSA boundary until there is a licensee providing service that would be affected by the higher power level. Once an affected licensee is providing service, the original licensee will be required to take whatever steps are necessary to comply with the applicable power level at its GSA boundary. Licensees taking advantage of this provision are placed on notice that once an affected licensee is providing service, they will be required to promptly do whatever is necessary to comply with the power limit at the GSA boundary. Of course, if a license obtains the consent of all affected licensees, it may continue to exceed the applicable power limit.

110. In a related matter, the Coalition suggests that the 47 dBμV/m limit be measured 1.5 meters above the ground over 5.5 MHz bandwidth (i.e., the bandwidth of the LBS/UBS channels as proposed by the Coalition). The Coalition states that 1.5 meters above ground is appropriate because this height represents the approximate height at which handheld devices and other likely customer equipment would be located. We agree. Therefore, in view of the band plan that we are adopting, we will require that the signal strength, when measured, shall be taken over the channel bandwidth (i.e., each 5.5 MHz channel in the LBS and UBS for licensees that hold a full channel block, and for the 5.5 MHz channel in the LBS and UBS for licensees that only hold individual channels) at 1.5 meters above ground where most handheld devices are likely to be operated.

[206] In light of our decision to institute geographic area licensing in the MBS, we will not require applicants to demonstrate compliance with co-channel and adjacent-channel desired-to-undesired signal ratios, as proposed by the Coalition. Coalition Proposal at 36-38. Since licensees will be free to place facilities throughout their GSA, applicants will not necessarily know where the facilities of other licensees will be located. Moreover, we believe the power limits and out-of-band emission limits we have adopted will provide sufficient protection.

[207] We will require that the neighbor licensee be providing actual service to internal or third parties. A licensee that is merely testing or transmitting data not being received by any party would not be entitled to require a licensee to reduce power.

2. Authorization of Mobile Operation

111. Although we have applied both fixed and mobile allocations to the 2500-2690 MHz band, we have required MDS and ITFS licensees to obtain separate authorizations before commencing mobile service. In the *NPRM*, we proposed to authorize MDS and ITFS licensees to engage in mobile operation by blanket-licensing such operation under licensees' GSA authorizations.[208] We sought comment on this proposal and any other requirements we should implement, including but not limited to those discussed throughout the proceeding.

112. The record supports our proposal to blanket license mobile operations in the band pursuant to licensees' GSA authorizations. The Coalition is supportive of this proposal, noting that portable and mobile units will operate at low-power levels and generally will be utilized at relatively low heights above ground level, thus making it unlikely that they will be a source of interference. The Coalition recognizes that a portable unit can be operated at elevated heights (e.g. atop a skyscraper), but believes such instances will be relatively infrequent and should not pose a substantial problem. We agree and adopt our proposal to authorize licensees to engage in mobile operation by blanket licensing such operations under the licensees' geographical service area authorization.

3. Power and Antenna Height Limits

113. *Response Stations*. Our current rules limit response stations operating in the 2500-2690 MHz band to a transmitter output power of 2 watts.[209] The maximum transmitting power for broadband PCS mobile/portable operations in the 1.9 GHz band is 2 watts EIRP.[210] Noting that we adopted the 2-watt limit in the Two-Way Order without any explanation, the Coalition urged in its Proposal that we delete this power limit, arguing that it unduly restricts the flexibility of equipment designers to make the most efficient use of the 2.1 and 2.5 GHz bands.[211] The Coalition emphasized, however, that it was not advocating any change in the restrictions on power contained in Parts 1 and 2 that are designed to assure the protection of human health and safety; in fact, it recommended that we clarify that those limits apply to MDS and ITFS by adding those services to the list of services specifically shown as being subject to the rules.[212]

114. In the *NPRM*, we noted that while the 2-watt EIRP limit on PCS response stations appeared to be a reasonable model to follow when we adopted a similar rule for MDS and ITFS, the record of the PCS proceeding indicates that the 2-watt EIRP limit was originally designed to reduce the likelihood of interference with fixed microwave stations in the PCS bands.[213] We sought comment on the extent to which similar concerns should apply for MDS and ITFS, bearing in mind the differences between the incumbent licensees in the MDS/ITFS bands – and their circumstances – as compared with the incumbent licensees in the PCS band. We further pointed out that while compliance with our safety rules may by itself necessitate compliance with a 2-watt limit for portable devices that are normally held close to the

[208] *NPRM,* 18 FCC Rcd at 6777 ¶ 132.

[209] *See* 47 C.F.R. §§ 21.909(g)(2) and 74.939(g)(2).

[210] See 47 C.F.R. § 24.232(b).

[211] Coalition Proposal at 25.

[212] *Id.* at 26.

[213] Amendment of the Commission's Rules to Establish New Personal Communications Services, *Second Report and Order*, 8 FCC Rcd 7700, 7764-65 ¶ 156 (1993).

user's body, those rules allow higher power levels in circumstances where the response station's transmission antenna is designed to be used at least twenty centimeters away from the body of the user or any nearby persons.

115. In response to our proposal regarding the transmitter output power limitation of 2-watts for response stations, the Coalition commented that it rejects the PCS approach. It notes that the PCS approach was adopted to address a very different sort of problem than is facing MDS and ITFS and should not be considered as a precedent here.

116. We disagree with the Coalition that the PCS approach should be rejected here and the 2-watt limitation should be deleted. We believe that like PCS, BRS and EBS response stations should be designed to reduce the likelihood of interference with BRS and EBS stations and mobile services in the band. Moreover, compliance with our safety rule necessitates compliance with a 2-watt limit for devices that are normally held close to the user's body. The rules allow higher power levels in circumstances where the response station's transmission antenna is designed to be used at least twenty centimeters away from the body of the user or any nearby persons.

117. IPWireless states that the 2-watt limit should be specified on a per channel basis, as is currently done in Parts 21 and 74, so that when partial or multiple channels are employed, the allowable power level is adjusted as per the main station. Moreover, in regards to customer premises equipment (CPE), IPWireless proposes that the Rule be amended to 2-watts EIRP, which is more restrictive than our current Rules for fixed response stations. IPWireless' proposal would require that all subscriber equipment conform to the power limit established for PCS mobile stations. We agree with IPWireless that the 2-watt EIRP level advocated for CPE is appropriate for mobile and portable station operation in these services. Accordingly, all mobile and portable response stations, including CPE devices, will be limited to 2-watts EIRP assuring compliance with our rules. However, we will not amend our rules regarding BRS and EBS fixed response stations.

118. Finally, in the *NPRM*, we sought comment on whether we should establish a maximum antenna height for response stations in view of our proposal to blanket-license such stations. While mobile or portable stations would typically be close enough to the ground that they would be shielded by nearby structures, we noted in the *NPRM* that the rules we were contemplating adopting for these services would also permit the deployment of response stations at fixed locations, where they could be attached to antennas at high elevations. Such transmitters would have a greater potential for generating unwanted electromagnetic interference. We sought comment on whether the signal strength limits that we propose to apply at GSA boundaries would obviate the need for antenna height limits.

119. Upon reflection, we conclude that we will not establish a maximum antenna height for fixed response stations in this band. IPWireless does not believe that a maximum antenna height for response stations can be enforced, given that response stations are permitted to operate in an uncoordinated fashion under a blanket license. However, in the event that antenna heights and power height limitations are imposed, IPWireless suggests that the PCS antenna height and power limits contained in Section 24.232 should apply.

120. Our current Rules do not limit the height of fixed response stations, which are typically mounted to the roof-top of most buildings for BRS and EBS stations, and we see no reason to change these rules at this time. Mounting response antennas to the roof-tops of existing buildings or side-mounted to an antenna mask (i.e., FAA approved structures) would be more practical and economical than building a supporting tower structure. Therefore, we believe the vast majority of response antennas will be mounted to the roof-top of typical buildings for economic reasons which would restrict the overall height of the

antennas. Moreover, our current Rules have not presented any problems, and we agree with IPWireless that such limits may not be enforceable. Accordingly, we will not establish a maximum antenna height for fixed response stations in this band.

121. *Base/Main Stations.* In the *NPRM*, we noted that there is no specific power limit for low-power base stations, nor are there base station transmitting antenna height limits for operations in this band. In view of our proposal to limit signal strength at the borders of licensees' GSAs, we sought comment on whether there would be any benefit to establishing base station power and antenna height limits. In particular, we sought comment on a Coalition proposal to create incentives, but not an absolute requirement, for licensees to limit the height of low-power base stations near their GSA borders.[214] The Coalition proposal stemmed from its concern that a 47 dBμV/m signal strength limit at GSA boundaries might not provide sufficient protection against interference to base station receivers. The Coalition expressed that the most troublesome scenario would arise when the interfering licensee is using a channel for downstream communications from its base stations, and the interfered-with licensee in a contiguous GSA is using the same channel for upstream communications to its base stations. Under these circumstances, the Coalition recommended a safe-harbor requirement that both licensees limit their antenna heights to $D^2/17$, where D is the distance in kilometers between the base station causing the interference and the point where a line connecting the transmitting base station with the neighboring receiving base station intersects the boundary between their respective GSAs. Pursuant to this approach, antenna height would be defined as the height in meters of the antenna's centerline above the average elevation along the line between the two base stations.[215] If a transmitting licensee's antenna is not within the safe-harbor height limit and the receiving licensee's antenna is within the safe harbor, the transmitting operator would be required to take such measures as are necessary to limit the level of the undesired signal at the receiving base station to -107 dBm or less.[216]

122. In contrast to the Coalition's recommendations, our Broadband PCS rules do not impose any direct limit on antenna heights, but they apply a graduated reduction in permissible EIRP output for base station antennas that are more than 300 meters in height.[217] We noted in the *NPRM* that, on first impression, the Coalition's proposal appeared to lack certainty, insofar as the requirements imposed upon a licensee would be dependent upon actions taken by a neighboring licensee. However, we noted that a licensee could ensure its compliance with the recommended safe harbor, regardless of any future actions taken by the neighboring licensee, by drawing a line intersecting the nearest point on the GSA boundary and assuming that the other licensee might someday site a base station somewhere on that line. The recommended formula could then be applied to determine the maximum safe-harbor height for any given distance from the boundary. We concluded that the safe harbor distance formula proposed by the Coalition would not adversely affect the typical 2-5 mile antenna service distance and 150 to 300 feet height above average terrain (HAAT) of base stations in low-power cellular networks. We also concluded that it would have a minimal effect on typical base station design.

123. We believe that it is premature to impose a limit on antenna heights for low-power base stations given that base stations must comply with the 47 dBμV/m signal strength limit at its GSA boundaries as adopted herein. However, we concur with the Coalition that in line-of-sight situations, it is

[214] *See* Second Supplement to the Coalition Proposal at 3-7, filed Feb. 7, 2003.

[215] *Id.* at 5.

[216] *Id.* at 6.

[217] 47 C.F.R. § 24.232(a).

possible for a station to comply with the 47 dBμV/m signal strength limit at its GSA boundary and cause objectionable interference in an adjacent area at the same time. The Coalition has provided a vehicle for licensees to determine if the heights of their transmitting antennas would cause objectionable interference to a receiver in an adjacent GSA. Its proposal, $D^2/17$, mentioned above, would be a voluntary coordination threshold showing with regards to the heights of base station transmitters that would be located near the GSA boundary of an adjacent licensee. There will be no restrictions on the heights of base station antennas, but in certain situations, interference protection will be required. A base station receive antenna less than or equal to the threshold showing will be protected from a transmitting antenna that exceeds the threshold showing. A base station transmitting antenna equal to or less than the threshold showing is unlikely to cause interference; therefore no protection to any base station receive site will be required from such base stations. Finally, a base station transmitting antenna greater than the threshold would not need to protect a base station receive antenna that exceeds the threshold showing. In view of the fact that the ideal location for a base station antenna is in the center of the geographical area in which it provides service, we believe that the 47 dBμV/m signal strength limitation at the geographical service area boundaries is adequate provided the antenna height of the base station does not exceed the above threshold showing. Accordingly, we will not impose a limitation on the antenna heights of base stations located near the GSA border provided they do not cause impermissible interference.

4. Emission Limits

124. The purpose of emission limits, also known as emission masks, is to provide protection against adjacent channel interference (e.g., restrict transmitter emissions on a range of frequencies removed from the licensee's assigned frequency or frequency band). The current rules governing emission limits for MDS and ITFS are set forth in Sections 21.905 and 74.936, respectively. The current rules are based, however, on high-power video operation and vary slightly between the services.

125. In the *NPRM*, we stated that modification of the rules governing out of band emissions was necessitated by our intention to provide for mobile operation in the band. Consequently, we sought comment on the Coalition's recommendation that we require equipment operating on the LBS and UBS channels (both base stations and stations at a customer's premises) to attenuate the power below the transmitter power (P) by at least $43 + 10\log_{10}(P)$ dB on any frequency outside a licensee's authorized spectrum.[218] This recommendation is the same as the general emission mask the Commission adopted for operations in both the upper and lower 700 MHz band.[219] For the Response (R) channels the Coalition suggested requiring an attenuation of at least $80 + 10\log_{10}(P)$ dB. The Coalition also asserted that additional attenuation may be required in special circumstances. For example, the Coalition stated that the rules should be changed to require a licensee to take steps to attenuate out of band emissions by at least $67 + 10\log_{10}(P)$ dB upon written request from an adjacent channel licensee.[220] In response to this suggestion, we noted that we had never required a licensee to reduce its out of band emissions at the request of an

[218] Coalition Proposal at 29.

[219] *Lower 700 MHz Band R&O*, 17 FCC Rcd at 1070 ¶ 122.

[220] According to the Coalition's Proposal, the written request must include a certification from the requesting licensee that it intends to initiate service on the affected adjacent channel group at a date certain (not more than one year after the date of the written request), and that the additional attenuation is required due to the respective technical characteristics of the requesting licensee's planned facilities and those of the party receiving the request. The requesting licensee must also include in the written request currently available information regarding its planned network design comparable in scope to the information required to be filed upon completion of the construction of its facilities. *See* Coalition Proposal at 29.

adjacent channel licensee. The Coalition also outlined a more restrictive mask for protecting operations on the MBS channels[221] and for licensees of MBS channels to protect operations on LBS and UBS channels.[222] We observed that adopting all the Coalition's recommendations would be inconsistent with our stated goal of simplifying the rules governing this band (e.g., minimize harmful interference without establishing overly burdensome requirements). Nevertheless, we sought comment on whether we should adopt the Coalition's recommendations concerning out of band emissions or different criteria and details on measurement procedures to determine compliance.[223] Further, we sought comment on the appropriate emission mask for mobile operations. In that regard, we noted that we recently adopted out-of-band emission requirements to ancillary terrestrial component (ATC) mobile units in the 2000-2020 MHz band in order to protect adjacent channel PCS operations.[224] Because Mobile Satellite Service (MSS) and ATC units will be operating in the band immediately below 2500 MHz, we sought comment on whether similar limits should apply. We also sought comment on whether any special rules were needed to protect the Earth Exploration Satellite (passive), Radio Astronomy, and Space Research allocations in the 2690-2700 MHz band.[225] Finally, we requested comment on whether we should specify a frequency tolerance or require equipment to maintain its operations fully within the emission mask at all times.

126. After reviewing the record in this proceeding, we now believe that the emission mask proposed by the Coalition for the LBS and UBS reasonably limits adjacent channel interference and maximizes spectral efficiency while remaining technology neutral.[226] We agree with the Coalition which notes that loose out -of-band emission limits provide perfectly acceptable adjacent channel interference protection when adjacent channel licensees are operating compatible systems, but when adjacent channel systems are not compatible, a more stringent out of band emission limit is necessary to provide an appropriate level of interference protection. The Telecommunications Industry Association (TIA) also supports the Coalition's out-of-band emission limits, which are also imposed in the PCS band. TIA asserts that if flexibility is provided to the licensee to utilize either FDD or TDD, out of band emissions will have to be reduced to a level that will provide reasonable protection to an adjacent channel licensee. TIA further argues that the dual mask approach proposed by the Coalition restricts out-of-band emissions and

[221] The Coalition states "[i]n addition to the other requirements imposed on *out of band* emissions by stations operating outside the MBS, the licensee of any transmitter operating in the LBS, UBS, I, J, or K channels shall manage its *out of band* emissions such that the noise power introduced into an MBS channel does not exceed an EIRP of -37 dBm without the consent of the affected MBS channel licensee. Notwithstanding the foregoing, if the licensee of a channel outside the MBS digitizes a channel within the MBS, the noise power introduced into that channel of the MBS shall not exceed an EIRP of -20 dBm without the consent of the affected MBS channel licensee." *See* Coalition Proposal at 30.

[222] *See* Coalition Proposal at 16, nn.39, 41.

[223] For example, the Coalition suggests that we measure *out of band* emissions at the outermost edges of the combined channels where two or more contiguous channels are employed in the same system. *See* Coalition Proposal at 29 n.79. *See also* Coalition Proposal at 30 n.81.

[224] Flexibility for Delivery of Communications by Mobile Satellite Service Providers in the 2 GHz Band, the L-Band, and the 1.6/2.4 GHz Bands, IB Docket No. 01-185, *Report and Order and Notice of Proposed Rulemaking*, FCC 03-15, 18 FCC Rcd 1962, 2025-26 ¶ 119 (2003).

[225] *See* 47 C.F.R. § 2.106 n.US246.

[226] As the Commission's Spectrum Policy Task Force has recognized, there is an inherent tension between the dual objectives of affording licensee's flexibility and grouping like systems together; if every licensee is free to choose the services it will offer and the technology it will employ, the Commission cannot possibly assure that technically-disparate systems will be separated.

mitigates potential adjacent channel interference where non-synchronized technologies are deployed.

127. We also agree with the Coalition that equipment on the LBS and UBS channels (both base stations and stations at a customer's premise) should be required to attenuate the power on any frequency outside a licensee's authorized spectrum.[227] Accordingly, we are adopting the Coalition's recommendation that all LBS and UBS channels emissions be attenuated below the transmitter power by at least 43 + 10log(P) dB on any channel outside a licensee's spectrum. We note that this is the same as the general emission mask the Commission adopted for operations on PCS, the 700 MHz band and other services.

128. We note TIA's concerns that requesting more stringent out of band emissions from an adjacent channel licensee, upon written request, is an unworkable solution for further reduction in out-of-band emissions. However, we believe that is appropriate to allow licensees to request stricter out-of-band emission limitations when there is a documented case of interference caused by out-of-band emissions between base stations. We believe that requiring the requesting licensee to document its interference claims will ensure that such requests will address real problems and avoid specious requests. Therefore, the Commission will require a licensee, upon receiving a documented interference complaint from an adjacent channel licensee, to further reduce its out-of-band emissions by at least 67 + 10log(P) dB. We also agree with the Coalition that additional attenuation should be required where base stations are located in close proximity. So we will require additional attenuation when distances between base station are less than 1.5 km. Finally, we also agree with the Coalition's mobile station emission mask which extends the attenuation from 43 + 10lop(P) at the channel's edge to 55 +10log(P) at 5.5 MHz away from the channel's edge.

129. With respect to BRS channel 1, we clarify that adjacent-channel Mobile Satellite Service (MSS) licensees can seek tighter out-of-band emissions limitations on licensees operating on Channel 1 in cases of documented interference. There may be situations where a tighter out-of-band emissions limit is necessary to protect MSS operations below 2495 MHz. MSS licensees operating in the adjacent band will be able to request such additional protection under the same circumstances as adjacent-channel BRS and EBS licensees.[228]

130. With respect to the MBS, we will allow analog television operations to operate pursuant to the existing out-of-band emission limitations currently in our rules. With respect to other operations, we will apply the same rules we are adopting for the LBS and UBS. We note that the Coalition requested no changes in the out-of-band emission limits for the MBS.[229] However, we believe that the rules we are adopting are more workable than the current rules and will provide sufficient protection to existing operations. Moreover, applying the same emission limitations for digital operations throughout the band will encourage the use of common equipment throughout the band, particularly in those areas where cellularized networks can operate in the MBS without interference from high-power operations.

5. Technology

131. In the *NPRM*, we sought comment on the Coalition's request that we not restrict

[227] Coalition Proposal at 29.

[228] Given the difficulties involved in measuring satellite signals, which can operate at very low-power, we will not require MSS licensees seeking adjacent-channel protection to provide actual measurements of satellite signal levels.

[229] Coalition Proposal at 39.

operation in this band to a particular technology and its assertion that our rules should remain technology-neutral to the maximum extent possible.[230] We noted that the Coalition also raised the issue that second-generation equipment employs two different technologies – FDD and TDD -- and that FDD technology requires a separation between the highest frequency used in one direction and the lowest frequency used in the other direction.[231] Thus, to allow for FDD technology, the Coalition proposed that when this technology is employed by a licensee, the LBS be restricted to subscriber-to-base (upstream) communications and the UBS be restricted to base-to-subscriber (downstream communications). According to the Coalition, this framework would simplify adjacent channel coordination and provide the vendor community with a degree of certainty as to the band usage that will translate into lower equipment costs and smaller equipment. We sought comment on whether we should establish formal channel pairings in the form of fixed channel assignments (FCA) to standardize the separation between channels used upstream and downstream.

132. We agree with the Coalition and the overwhelming majority of Commenters who argue that the band should be technology neutral. Allowing the band to be technology neutral is consistent with our goal to make the spectrum as flexible as possible as it permits licensees and the marketplace to determine which technologies should be utilized. As noted by Gryphon, Earthlink, Sprint, and Twedt and Dudeck, not restricting the band to a particular technology allows licensees and systems operators to deploy either FDD or TDD technology, and freely switch between the two as the technology develops and the marketplace demands evolve. Moreover, as noted by Alvarion, technologies such as next generation FDD and TDD would not thrive in a regulatory environment that restricts flexibility and mandates one technology over another.

133. We disagree with Fixed Wireless Holdings' approach which locks in the technology choice made at the time of licensing. To support its position, Fixed Wireless Holdings points to the Coalition's acknowledgement that both FDD and TDD systems on the same frequencies "creates a heightened risk of co-channel interference." However, we agree with Twedt and Dudeck that the current Rules would allow ITFS or MDS operators to safely use either FDD or TDD technology. Providing users with the flexibility to deploy the technologies of their choice is consistent with the Commission's goal of allowing licensees to operate technology independent. Accordingly, we will not mandate any particular technology in the band.

134. Additionally, we conclude that in order to allow the spectrum to be technology-neutral to the maximum extent possible, channels utilized for FDD in this spectrum will not be paired by fixed channel assignments. Rather, upstream FDD operations will be permitted in the LBS, and paired with channels in the UBS for downstream communications by dynamic channel assignment (DCA). Channels that are DCA paired select any unused channel in the LBS for upstream operation, which eliminate manual channel pairing, thus promoting more flexibility and an efficient use of the spectrum. We are not, therefore, adopting a requirement for the LBS to be used only for remote, response or mobile station transmissions or for the UBS to be used only for base or main station transmissions. However, this does not preclude the industry from adopting its own standard.[232] An operator is free to use TDD in either the

[230] Coalition Proposal at 11, 15.

[231] The Coalition points out that the Commission's *Interim Report* stated that a separation of at least 30 megahertz between upstream (customer to base) and downstream (base to customer) transmissions is needed to provide sufficient isolation of signals in the duplexer. *See* Coalition Proposal at 16. *See also Interim Report* at 54.

[232] All stations, regardless of their use, must comply with the emissions standard specified for LBS and UBS. *See* Appendix C, Section 27.53, Emission Limits.

LBS or the UBS. Thus, FDD technology will be used in this spectrum without a priori pairing.

6. Unlicensed "Underlay" Operation

135. As we have consistently noted, one of the underlying goals of this proceeding is to promote increased access to spectrum. In this regard, we noted in the *NPRM* that Intel and Microsoft advocated that we create, or at least preserve, the opportunity to create unlicensed "underlay" rights for very low-powered devices on these channels.[233] Recently, we issued a Notice of Inquiry concerning making additional spectrum available for use by unlicensed devices in the television bands and in the 3650-3700 MHz band.[234] In the Unlicensed NOI, we noted that there have been significant advances in technology that may make it feasible to design new types of unlicensed equipment that would not cause interference to existing services.[235] For example, equipment could be designed that could monitor spectrum before transmitting to avoid interference, or equipment could be designed that could use the Global Positioning System to determine its location and whether there are licensed operators in the area.[236] We also noted that allowing unlicensed operation with minimal technical requirements could potentially permit the development of new and innovative types of devices, such as new wireless data networks.[237]

136. In the *NPRM*, we stated that the proximity of the 2500-2690 MHz band to successful unlicensed technologies in the 2.4 GHz band, and our goal of increasing the intensiveness and efficiency of use of the 2500-2655 MHz band, suggests that it may be appropriate to consider enhancing unlicensed use in the band on a secondary, non-interference basis. While we recognized that unlicensed operations under our Part 15 rules are subject to the condition that the transmitter does not cause interference to authorized services, we stated that we were nonetheless mindful in this context that additional measures may be necessary to ensure that unlicensed operations would not cause interference to existing, licensed operations. In that regard, we noted WCA's belief that Microsoft and Intel's proposals were premature. WCA contended that the necessary technology for mass producing affordable devices capable of measuring and reliably adapting to the presence of background noise or "interference temperature" had not been demonstrated.[238]

137. Based on our discussions in the Unlicensed NOI and the advent of emerging technologies enhancing the feasibility of unlicensed operations, we sought in the *NPRM* comment on the possibility of allowing enhanced unlicensed operations in the 2500-2690 MHz band. Additionally, we sought comment on technical rules that would permit such operations without interfering with primary operations, such as any restrictions on antenna gain or directivity that might be necessary.[239] Furthermore, we sought comment on whether it is feasible to manufacture affordable transceivers that are capable of using underlay rights where, and only where, such access is offered if some but not all licensees on a given channel allow underlay access. Noting that Part 15 transmitters may not operate in certain restricted bands, including

[233] Intel Reply Comments in RM-10586, at 5; Microsoft Reply Comments in RM-10586, at 3-4.

[234] Additional Spectrum for Unlicensed Devices Below 900 MHz and in the 3 GHz Band, ET Docket No. 02-380, *Notice of Inquiry*, 17 FCC Rcd 25632 (2002) ("*Unlicensed NOI*").

[235] *Id.* at 25637 ¶ 13.

[236] *Id.*

[237] *Id.* at 25642 ¶ 21.

[238] Coalition Comments in ET Docket No. 02-135, at 10.

[239] *NPRM,* 18 FCC Rcd at 6781-6782 ¶ ¶ 143-148.

2655-2690 MHz,[240] we asked whether there were any circumstances under which unlicensed operation could be allowed in the 2655-2690 MHz band without adversely affecting passive sensing operations in the 2655-2700 MHz band.

138. Based upon our review of the record, we decline to permit high-power unlicensed operations in the spectrum at this time. We are not necessarily convinced by Motorola's and Sprint's arguments that high-power unlicensed operations would introduce new sources of interference and create a more uncertain interference environment at the expense of licensees in the band seeking to deploy new services.[241] However, given the complex transition we are undertaking in this band, we believe that allowing high-power unlicensed operations in this band could add an additional layer of complexity that could delay deployment in this band by licensed operators. We are also concerned by the Coalition's assertion that allowing unlicensed use of this spectrum could undermine the evolution of the modified band plan, and BellSouth's related comment that because the current state of unlicensed technology does not permit responsible implementation of unlicensed devices in the spectrum, the uncertainty and novelty of unlicensed use would trouble investors, making them less likely to invest in the band.[242] We note that NAF and a series of other Commenters in favor of allowing unlicensed operations did not provide sufficient scientific evidence in support of their position. Moreover, NAF did not submit sufficient evidence to support its claim that unlicensed underlay operations can be operated on a primary basis without causing interference within the spectrum. Furthermore, we believe that the issue of high-power unlicensed operation can and should be considered in the broader context of other proceedings addressing unlicensed operation. Therefore, we decline to permit unlicensed operations in the band except as indicated above and to the extent already permitted by Part 15 of our Rules.

139. However, we will lift the restriction on unlicensed operation in Section 15.205 of our Rules and permit low-power unlicensed devices to operate on frequencies 2655-2690 MHz under our current Part 15 rules. Given the existence of licensed services in this frequency band, and given the ability of licensed operation to co-exist with unlicensed operations in the 2500-2655 MHz band, we see no reason to maintain this restriction in this band.

7. RF Safety

140. The Coalition's proposal for revisions to the 2500-2690 MHz band includes a recommendation that we amend our RF Safety rules. More specifically, the Coalition contends that we should amend Sections 1.1307(b)(2), 2.1091(c) and 2.1093(c)[243] to include MDS and ITFS services.[244] These Rules were enacted pursuant to the National Environmental Policy Act in order to assure the protection of human health and safety from radio frequency radiation exposure. The Commission considers RF safety procedures to be essential in protecting human beings from excessive exposure to RF energy.[245] Accordingly, we sought comment on whether and how we should amend the RF safety rules but received little comments on this issue. We agree with the Coalition that Sections 1.1307(b)(2), 2.1091(c)

[240] 47 C.F.R. § 15.205.

[241] Motorola Comments at 3-4; Sprint Comments at 9.

[242] Coalition Comments at 67-68; BellSouth Comments at 26.

[243] *See* 47 C.F.R. §§ 1.1307(b) (2), 2.1091(c) and 2.1093(c).

[244] *See* Coalition Proposal at 20, nn.26 and 51.

[245] The existing requirements are located in 47 C.F.R. §§ 1.1307(b), 1.1310, 2.1091 and 2.1093.

and 2.1093(c) of our Rules should be amended to include MDS and ITFS services. We believe that equipment in this spectrum as in other areas of the spectrum should provide RF safety to consumers. Therefore, applications for equipment operating under this service must contain a statement confirming compliance with these requirements for both fundamental emissions and unwanted emissions. Accordingly, we are amending those sections of the Rules to allow mobile/portable devices in the band.

8. North American Datum (NAD) 83 Coordinate Data

141. Our rules require the submission of different coordinate data for licensing actions. Applicants submit coordinate data using NAD83 protocol for applications filed on FCC Form 331 but in NAD27 for all other MDS/ITFS forms. In the *NPRM*, we sought comment on the Coalition's proposal that we require applicants to use NAD83 coordinate data and update or convert the current database.[246] We further noted that applications filed through ULS are required to provide NAD83 coordinate data. Inasmuch as applications for this service will be processed through ULS, we conclude that these applications should likewise provide NAD83 coordinate data. We agree with the Coalition that the coordinate information in our ULS database should be consistent. Accordingly, we adopt the Coalition's proposal and will require all future applicants filing BRS/EBS applications to submit coordinate data based on NAD83 coordinate data to facilitate ULS processing. Therefore, all applications filed after the effective date of these rules are required to contain coordinate data based on NAD83 coordinate data.

9. BRS Response Station Hubs

142. Our existing rules regard hubs in the same manner as main stations for application processing purposes. For instance, whereas 47 C.F.R. Section 1.1104 contains a special section on the application fee for signal booster applications and for signal booster certification of completion of construction applications ($70.00 in each instance), the rules do not differentiate between requirements for main station applications and certifications and response station hub applications and certifications. At present, the fee for a response station hub on a Form 331 is $210.00, and the fee for the Form 304A is $610.00.[247] Section 21.909 states that an MDS response station hub application must be filed on a Form 331. Licensees of MDS response station hubs must also file a certification of completion of construction application.[248] Response station hubs, signal booster stations and R channels are considered stand-alone stations, and thus have unique facility ID numbers separate from the associated main stations.[249] However, at this time, only signal booster stations are designated for special treatment in the application fee schedule. We do not believe that certifications of completion of construction of two-way hubs will be necessary under the GSA licensing approach that we adopt herein, and accordingly eliminate such filing requirements.

10. Radiation from Stations that are not Engaged in Communications

143. On September 25, 1998, the Commission amended its rules to allow MDS and ITFS licensees to provide a wide range of high-speed, two-way services to a variety of users.[250] On July 29,

[246] Coalition Proposal at 56.

[247] *See* 47 C.F.R. §§ 1.1104 and 21.909(c)(1).

[248] 47 C.F.R. § 21.909(h)(i)(2).

[249] *See* Mass Media Bureau Multipoint Distribution Service and Instructional Television Fixed Service Applications Tendered For Filing, Report No. 148, *Public Notice* (Nov. 29, 2000).

[250] *Two-Way R&O*, 13 FCC Rcd at 19112.

1999, the Commission made some additional rule modifications to facilitate the provision of these services.[251] On December 22, 1999, IPWireless requested reconsideration of the Commission's out of band emission limitations.[252] On February 10, 2000, a group of over 100 wireless communications system operators, Commission licensees, equipment manufacturers and consultants who were parties to the Petition for Rulemaking that commenced the Two-Way Proceeding (collectively, Petitioners) did not oppose IPWireless' petition, but sought clarification of Sections 21.909(m) and 74.939(o) of our Rules.[253] The Petitioners indicated that there was some uncertainty within the industry as to the meaning of the language, "Radiation of an un-modulated carrier and other unnecessary transmissions are forbidden."[254]

144. The Petitioners requested clarification that this language requires a response station's transmitter to be biased off so that no RF Gaussian noise is emitted when the station is not engaged in communications.[255] The Petitioners argued that this interpretation assures the protection of the noise floor of adjacent channel and adjacent market licensees against unnecessary emissions from transceivers.[256] On May 11, 2000, the Petitioners and IPWireless notified the Commission that they had reached a compromise concerning the appropriate level of emissions that a response station may generate when not directly engaged in communications with a response hub.

145. The Petitioners and IPWireless requested amendment of Sections 21.909(m) and 74.939(o) of our Rules to provide that when a response station is not in communications with its associated hub, it must restrict its field strength.[257] First, they proposed to set the permissible level of RF Gaussian noise at 10 microvolts/meter per 1 MHz bandwidth at a distance of 3 meters for response stations utilizing antennas with 6 dB or less gain over isotropic. Second, they proposed to set the permissible level of RF Gaussian noise at 10 microvolts/meter x 10exp[(antenna gain - 6 dB) / 20] per 1 MHz bandwidth at a distance of 3 meters for stations utilizing antennas with more than 6 dB gain over isotropic.[258]

146. In the *NPRM*, the Commission agreed to clarify this issue and sought comment[259] on specific issues relating to this matter.[260] Additionally, we sought comment on comprehensive changes to the interference rules that would apply in these services. Noting that other services do not have similar requirements, we asked Commenters who supported imposition of such a requirement to explain the need

[251] Amendment of Parts 1, 21 and 74 to Enable Multipoint Distribution Service and Instructional Television Fixed Service Licensees to Engage in Fixed Two-Way Transmissions, *Report and Order on Reconsideration*, 14 FCC Rcd 12764 (1999) (*Two-Way R&O on Recon*).

[252] IPWireless, Inc. Petition for Reconsideration, filed Dec. 22, 1999.

[253] Petitioners' Consolidated Comments and Partial Opposition at 5 (Consolidated Comments) filed Feb. 10, 2000. Although the Commission inadvertently indicated that WCA requested clarification, we take this opportunity to correct the record to reflect that the Petitioners requested clarification of this issue. *See Two-Way FNPRM*, 15 FCC Rcd at 14576.

[254] Petitioners' Consolidated Comments at 6.

[255] *Id*.

[256] *Id.*

[257] *Id.* at 1.

[258] *Id.*

[259] *Two-Way FNPRM*, 15 FCC Rcd at 14576.

[260] *Id.* at 14576-7 ¶¶ 39-40.

for such a requirement in light of other changes we proposed to our technical rules.

147. IPWireless now states that its original proposal to amend Sections 21.909(m) and 74.739(o) of the Rules is no longer appropriate. IPWireless explains that its proposal stemmed from the fact that MDS/ITFS licensees were concerned that TDD devices might be prone to transmitting energy during periods of reception. The Coalition supported IPWireless' proposal arguing that absent the adoption of the restrictions on emissions by subscriber units when not engaged in communications with their base stations, interference may result. Subsequently, however, IPWireless has completed more than two years of field trials and commercial deployment of TDD equipment and has obtained FCC certification for several types of base stations and CPE devices. IPWireless' studies led it to conclude that TDD devices are not a potential source of interference as envisioned by MDS and ITFS Petitioners at the time its petition was filed. We are persuaded by IPWireless' extensive studies and findings on this issue, which are further buttressed by the fact that IPWireless has obtained FCC certification for several types of base stations and CPE devices. Thus, we agree with IPWireless that amending Sections 21.909(m) and 74.739(o) of the Rules is not necessary, and the applicable rules will not be amended.

148. In a related matter, we also sought comment on whether we should prohibit subscriber handsets (CPE) from transmitting unless a base station pilot is present, and whether such a rule was necessary in order to avoid interference to existing operations. IPWireless supports our proposal prohibiting CPEs from transmitting unless a base station pilot is present. Moreover, IPWireless states that CPE transmissions must be restricted to locations where the blanket-license devices are operating under the active control and supervision of a licensed base station. We agree with IPWireless that handsets should not transmit unless a base station pilot is present, and that such transmissions must be restricted to locations under the active control and supervision of a licensed base station. Moreover, we believe that handsets should not transmit unless a base station pilot tone is present to preclude any unnecessary radiation "noise" in the spectrum. Accordingly, we will prohibit subscriber handsets from transmitting unless a base station pilot is present.

C. Eligibility Restrictions

1. ITFS Eligibility Restrictions

149. *Background.* The ITFS service was established to provide formal educational and cultural development in aural and visual form to students enrolled in accredited public and private schools, colleges and universities.[261] Our current rules limit eligibility for the 114 megahertz of ITFS spectrum in the 2500-2690 MHz band to: (1) accredited educational institutions, (2) governmental organizations engaged in the formal education of enrolled students, and (3) nonprofit organizations whose purposes are organizational and include providing educational and educational television materials to accredited institutions and governmental organizations.[262]

150. In the *NPRM*, we included a detailed discussion and history demonstrating how, over a fifteen year period, the Commission has progressively relaxed the educational content obligations of ITFS licensees to accommodate the flexibility needs of ITFS providers who have increasingly relied on the

[261] 47 C.F.R. § 74.931(a)(1).

[262] *See* 47 C.F.R. § 74.932(a). Under certain circumstances, "wireless cable entities" may obtain access to ITFS channels so long as at least eight other ITFS channels remain available for future ITFS use. *See* 47 C.F.R. §§ 74.990-74.992. In the *FNPRM* portion of this document, we are seeking comment on whether we should retain this restriction. *See* section V.E , *supra.*

leasing revenues provided by commercial spectrum users. As a result, the Commission's ITFS leasing policies now allow ITFS licensees to lease all but a small fraction of their capacity to commercial operators. From 1983 through 1998, the Commission progressively reduced the educational content required of ITFS licensees while expanding the opportunities for ITFS licensees to generate income by leasing out their channels, and substantially increased MDS operators' access to ITFS spectrum. These actions were taken in an effort to encourage more intensive use of the spectrum and to facilitate the generation of revenue for ITFS licensees.

151. In the *NPRM*, we stated that recent events warranted re-examination of the ITFS eligibility restrictions. We noted, for example, that in recent years, the Commission has pursued a general policy of eliminating use restrictions in radio licenses except in circumstances where there are clear and compelling reasons for retaining them.[263] We also noted the increased use of ITFS spectrum capacity by MDS systems as a result of the Commission's liberalization of leasing rules and relaxation of educational content requirements.[264] We also noted the increasing use of the Internet for educational purposes, which appeared to offer comparable and perhaps superior means of delivering educational programming.[265] Moreover, we expressed concern that retention of the ITFS eligibility restrictions could be detrimental to the growth of services on ITFS channels, because the complexity of the contractual relationships that our rules require in the ITFS service might discourage investment and impair the ability of service providers to modify their operations in response to changing technology and market conditions. We further noted that innovation could proceed more smoothly if commercial operators were able to aggregate spectrum in the 2500-2690 MHz band and purchase ITFS facilities, which would allow them to exercise direct ownership control. We suggested that providing existing ITFS licensees with greater flexibility might permit such licensees to capture the increased value of their spectrum, which would yield resources that could be used to enhance their educational programs in the manner that best suited their individual needs. In light of all these concerns, we sought comment on whether we should retain the ITFS eligibility restrictions. Additionally, we sought comment on maintaining ITFS as a separate service requiring educational programming but modifying the eligibility requirements to allow for-profit companies to be eligible licensees. Finally, we invited comment on whether we should eliminate or otherwise change our existing ITFS instructional content origination rules.

152. *Discussion.* After considerable deliberation, we conclude that it is in the public interest to retain EBS eligibility and content restrictions. We believe that the public interest favors preserving this spectrum for licensing to ITFS-eligible entities and that doing so will further the educational objectives that led to the establishment of ITFS. The record demonstrates that the EBS service provides critical educational services such as web-based and streaming video for instruction in adult literacy and basic skills, emergency medical and fire services, law enforcement, and corrections. These services are often provided by community colleges at a variety of locations across the state where such instruction would generally be unavailable.[266] The record also demonstrates that ITFS is used to provide training for citizens whose employment opportunities are limited by the closing of manufacturing plants and continued reduction in agricultural employment. Some EBS services, such as Mississippi Ednet's project with the Mississippi State Department of Health that will connect two hundred hospitals and health departments

[263] *NPRM,* 18 FCC Rcd at 6769 ¶ 111.

[264] 47 C.F.R. § 74.931(d)(1).

[265] *NPRM,* 18 FCC Rcd at 6770 ¶ 114.

[266] NCCCS Reply Comments at 2.

will even contribute to homeland security.[267]

153. Some commenters argue that important public interest objectives would be fulfilled if ITFS eligibility restrictions were eliminated. For example, BellSouth asserts that under a flexible use approach, licensees of ITFS spectrum may offer services other than fixed broadband and innovators can develop new, spectrally efficient technologies and offer new services in competition with fixed and portable operators.[268] BellSouth further asserts that open eligibility rules would facilitate development of Secondary Markets when DSL providers like it introduce advanced services to areas where wired DSL and cable modem services are not available, and provide facilities-based competition and competitive choice in areas where service is available.[269] Similarly, Network for Instructional Television (NITV) contends that open eligibility will stimulate private investment in new technologies that the education community has neither the budget nor the expertise to bring to the market unilaterally.[270]

154. We agree with BellSouth and NITV that these are all very important public interest objectives, and in particular, that leveraging the potential for wireless technology in the 2496-2690 MHz band to benefit education requires the private sector's investments and expertise. Nonetheless, we also believe that these goals can be attained notwithstanding existing eligibility restrictions. In this regard, we note that investment in the band is not solely dependent on an open eligibility scheme, and our restructuring of the band will go a long way towards encouraging the necessary investments. For example, as discussed earlier, the interleaved band plan has played a significant role in discouraging investment and hampering service. Inasmuch as licensees will now enjoy a band plan that provides contiguous spectrum, a significant obstacle to innovation in broadband deployment has now been rectified, and this enhancement alone will lead to significant changes in the utilization of this spectrum. Of particular importance is that the record does not demonstrate that commercial ownership of ITFS spectrum is a prerequisite to stimulating investment in the band. Indeed, as IMWED points out, that the bulk of commercial entities submitting comments to the *NPRM* did not take a position on ITFS eligibility demonstrates that lifting eligibility restrictions would not have a significant impact on commercial development of the band.[271] Moreover, over the course of this proceeding, several large commercial providers such as Clearwire and Nextel have acquired rights to spectrum and developed plans to establish broadband services in this spectrum, even notwithstanding the possibility that ITFS eligibility restrictions would be retained.[272] Therefore, we are not convinced that innovation in the band will be stifled by the continued retention of ITFS eligibility restrictions.

155. A number of ITFS licensees, such as IIT, disagree with assertions made by some commenters that actual educational use of the ITFS band is minimal.[273] IIT states that there are active ITFS operations in all of the top 50 TV markets, its use is robust, and educational institutions have

[267] Mississippi Ednet Reply Comments at 8-9.

[268] BellSouth Comments at 23.

[269] BellSouth Comments at 23-24.

[270] Network for Instructional Television (NITV) Reply Comments at 3-4.

[271] IMWED Reply Comments at 8.

[272] Clearwire Ex Parte (filed May 28, 2004); Nextel Reply Comments at 4.

[273] IIT Comments at 5.

deployed these frequencies for their intended use.[274] Furthermore, IIT asserts that notwithstanding the five percent minimum capacity rule, the majority of ITFS licensees who lease excess capacity retain at least 20 hours per week per channel and regularly reserve at least 25% of "total" capacity for ITFS use.[275] The Catholic Television Network (CTN) and the National ITFS Association (NIA) likewise assert that many ITFS licensees reserve amounts greater than the requisite 5% for their own use, while some do not lease any capacity on their ITFS stations.[276] During the course of this proceeding, a number of EBS licensees have submitted filings or made ex parte presentations to the Commission detailing the robust and critical educational applications they deliver to the public via their EBS spectrum.[277]

156. We recognize that there are a number of ITFS licensees, including some major educational institutions, who use the band more intensively for educational purposes than the rules require, and than other ITFS licensees in general. Because these commenters represent a small proportion of actual ITFS licensees, we must also acknowledge that overall utilization of the EBS spectrum is not optimal at this time. Our records indicate that there are 2,760 active, unexpired EBS licenses and permits (including hub and booster stations), or an average of approximately fifty-five facilities in each state. Given the large number of ITFS licensees, the record does not demonstrate that the ITFS community as a whole is making extensive use of the 114 megahertz allocated to them for educational programming. Nonetheless, we are reluctant to penalize the ITFS licensees who make extensive use of this spectrum and find that such action would be inconsistent with our conclusions on the importance of ITFS to the educational mission. Moreover, we recognize that ITFS entities could legitimately argue that they should have an opportunity to operate under the rules we have adopted today. For years, the band has been plagued by instability, uncertainty, filing freezes and burdensome rules, all of which have played substantial roles in fostering uncertainty and stagnation in the band. Ending the ITFS service without having given licensees the benefit of a stable regulatory environment would neither be fair nor in the public interest. We believe the better approach, and one which has been long overdue, is to provide licensees with a stable regulatory scheme thereby providing them the opportunity for their operations to flourish. We are optimistic that the sweeping changes we make today will ultimately result in significant improvements in the utilization of ITFS spectrum. We encourage ITFS licensees to make the most of these improvements by efficiently utilizing this spectrum, and intend to monitor the progress in this spectrum by means of the Bureau's periodic transition reports.[278]

157. In a related matter, we agree with CTN and NIA's argument that trends such as increased leasing of ITFS capacity to commercial entities do not justify eliminating ITFS eligibility restrictions.[279] As these commenters correctly point out, EBS is the only spectrum specifically set aside by the Commission for use by educators.[280] Furthermore, it is well established that revenue from leasing to commercial interests has, in many instances, effectively funded and financed ITFS buildout and

[274] IIT Comments at 8-9.

[275] IIT Comments at 10-11.

[276] CTN & NIA Comments at 10.

[277] *See, e.g.,* Huntsville City Schools Reply Comments at 1; Archdiocese of New York Comments at Attachment A; SBBC Comments at 2-5; IIT Comments at 5-8; ITFS Parties Comments at Appendix.

[278] See para. 103, *supra*.

[279] CTN & NTIA Comments at 8.

[280] CTN & NTIA Comments at 3-4.

operations. The Commission has always considered the leasing of excess capacity a legitimate source of funding for the educational mission, and has taken numerous steps over the years to facilitate and encourage these secondary market transactions.[281]

158. We recognize that educational programming is now available over the Internet, and the public is increasingly using the Internet to receive college courses or services of for-profit corporations that provide educational programming.[282] Indeed, the internet offers interesting educational possibilities in light of the fact that its ability to deliver media-rich content is improving rapidly.[283] In response to this data, some ITFS providers such as IIT, state the nature and quality of Internet education programming, which includes streamed-video windows typically covering only a quarter of the PC screen, is vastly different from ITFS programming, which includes full motion video of the instructor, screens of detailed materials, demonstrations in video, graphics and animation in real-time.[284] IIT and other ITFS licensees ultimately concede that the Internet offers interesting potential as an alternate delivery means, but stand firm in their belief that the time for internet conversion has not yet or may never arrive. As time progresses, we expect that many ITFS services will convert to internet or other low-power cellular means of delivery. However, regardless of whether the internet can technologically replace ITFS operations at this time, we agree with IIT and other ITFS commenters who assert that administrative issues such as planning and infrastructure purchases preclude a complete shift from ITFS as the primary mode of delivery at this time.[285] Moreover, other commenters point out that the Internet is an adjunct to, as opposed to a replacement for, their ITFS operations.[286] Inasmuch as relying on internet or other low-power conversion to deliver ITFS services at this time could result in the immediate immobilization of critical ITFS programming, we find it is not in the public interest to remove eligibility restrictions in reliance on internet replacement of ITFS at this time.

159. We recognize that our decision today may, at the outset, appear to digress from the Commission's policy goal, as expressed in the Spectrum Policy Statement, of eliminating eligibility restrictions. However, we believe that a public interest exception to our general trend is warranted in the instant case. Of particular importance is the fact that ITFS is the only spectrum specifically reserved for educators. In an open market, we are concerned that educators could not effectively compete against broader commercial interests. Indeed, pursuant to an open eligibility scheme, the inability to bid against commercial operators for this spectrum would effectively deny educators any future entry strategy into the band. This reality, coupled with the importance of ITFS to the educational mission, creates a strong justification for retaining eligibility restrictions in the ITFS band.

160. Additionally, we believe that the objectives accomplished by eliminating eligibility restrictions can still be attained notwithstanding ITFS eligibility restrictions. In this connection, we note that the Commission's trend towards eliminating eligibility restrictions is driven by its general belief that market forces should generally be allowed to operate without being restricted by government because they

[281] *See NPRM,* 18 FCC Rcd at 6765-68 ¶¶ 108-109.

[282] Jared Bleak, *Educated by the Market: A Researcher's Look at Educational Entrepreneurialism* (Harvard Graduate School of Education, Oct. 5, 2001) http://www.gse.harvard.edu/news/features/market10052001.html).

[283] *Id.*

[284] IIT Comments at 13.

[285] IIT Comments at 15.

[286] *See* GMUIF Reply Comments at 3; IIT Comments at 13-15.

will tend to push the use of radio licenses to their highest valued applications.[287] Here, we reject the view that the Commission's public interest goal of moving spectrum to its highest-valued use conflicts with the goal of promoting education. We believe that our actions today will instead promote both goals because the restrictions on eligibility here will not impede market forces. That is, our ITFS leasing and secondary market rules for spectrum leasing arrangements are sufficiently flexible to allow market forces to push the ITFS spectrum towards its highest valued use, and educators will continue to enjoy considerable flexibility to lease their excess capacity spectrum. Further, educators can enter into partnerships with commercial interests to improve the capacity and efficiency of their systems, which in turn could free up more spectrum for commercial operators to work towards the development of ubiquitous broadband.

161. In the *NPRM*, we expressed concern that the complexity of the contractual relationships that our current ITFS rules require may discourage investment and impair the ability of service providers to modify their operations in response to changing technology and market conditions.[288] We noted, for example, that an MDS operator who wants to change from providing one-way, high-powered television transmission operations from a single tower to providing two-way Internet access from multiple low-powered base stations must gain the consent of the ITFS operators in the market, even though the MDS operator may already have a leasing agreement with the ITFS licensee. While we must acknowledge that regulatory hurdles to innovation generally remain a prime concern, we do not believe that the eligibility rules will hinder the development of the band. Indeed, the additional flexibility we have provided with respect to spectrum leasing, and the other steps we have taken herein to maximize flexibility, should allow ITFS licensees to develop innovative educational systems and enter into partnerships with commercial carriers.

162. We agree with commenters that ITFS licensees who do not wish to use their facilities should be limited to selling their facilities to other educational organizations or non-profit educational organizations.[289] Although some commenters expressed concern that retaining eligibility restrictions would result in having spectrum lie fallow, as previously indicated, we believe that the sweeping changes made herein will promote the full utilization of the spectrum. Of particular concern to the Commission is the fact that open eligibility would mean that educational institutions and not-for-profit educational organizations that are interested in obtaining licenses will have to compete with a broader range of entities, including for-profit corporations, for future access to spectrum in the band. The challenges that educational institutions and organizations would face in obtaining access to the remaining ITFS white space would have been likely to serve as permanent barriers to their ability to acquire spectrum in this band.

163. In the *NPRM*, we sought comment on maintaining ITFS as a separate service requiring educational programming but modifying the eligibility requirements to allow for-profit companies to be eligible licensees. We noted, for example, that one possible change could be to apply to ITFS channels public interest obligations comparable to those that apply to DBS under Section 100.5 of our rules.[290] NTCA favors this approach, asserting that commercial operators should be permitted to acquire the spectrum, meet any educational requirements and use the excess capacity to meet the needs of the rural

[287] *2000 Spectrum Policy Statement*, 15 FCC Rcd at 24178.

[288] *NPRM,* 18 FCC Rcd at 6770 ¶ 115.

[289] *See* IMWED Reply Comments at 6-7; CTN & NIA Reply Comments at 6; SBBC Reply Comments at 2.

[290] DBS operators must reserve four percent of their channel capacity for use by qualified programmers for noncommercial programming of an educational or informational nature. *See* 47 C.F.R. § 100.5.

consumers.[291] Similarly, NITV urges that the Commission require that 5% of the capacity of a digital system be made available by commercial ITFS spectrum holders free to non-profit educational organizations and institutions for use in fulfilling their educational mission. With the exception of these two commenters, however, other commenters generally did not express interest in this approach. Rather, the comments largely focused on whether for-profit companies should be eligible licensees generally. Furthermore, in an ex parte presentation, ITFS licensees expressed their belief that it was in the best interest of education for educators to actually retain control of their ITFS spectrum. The lack of support for this approach generally coupled with the fact that this model already exists in the context of DBS persuades us that this approach is neither desirable nor necessary.

164. We take this opportunity to rename the Instructional Television Fixed Service as the Educational Broadband Service. In light of the fact that the service is not limited to either video or fixed services, we believe that it is appropriate to update the name of the service. While we understand that video-based services will continue to operate in the new EBS, we believe that the EBS name better describes the contemplated future use of the band. The change in the name of the service does not affect the substantive rights of current ITFS licensees, permittees, and applicants.

2. MDS/ITFS Cross Ownership Restrictions

165. *Background.* Section 613 of the Communications Act forbids cable operators from holding a MMDS license in any portion of the franchise area served by that cable operator's cable system. In the *NPRM*, the Commission sought comment on how Section 613's cable cross-ownership restriction applies to broadband internet access service, particularly in light of the legislative history of Section 613 and the fundamental change to the nature of MDS service caused when MDS licensees were permitted to construct systems capable of providing such broadband service.[292] We asked whether allowing cable operators to acquire MDS/ITFS licenses would have a significant effect on concentration in video markets,[293] and also whether allowing cable operators or DSL providers to acquire MDS/ITFS spectrum would have a negative impact on broadband internet markets.[294] We also sought comment on our preliminary conclusion that broadband markets are "very highly concentrated," and requested comment to the contrary.[295]

166. In 1990, the Commission sought comment on whether it should prohibit or limit licensing or leasing of MDS and ITFS channels by a cable system within its franchised area.[296] The Commission determined that the issue required evaluation of the relative merits of two "mutually exclusive" benefits—cable systems' ability to expand service, particularly into less populated areas, and potential competitors'

[291] NTCA Comments at 4.

[292] *See NPRM*, 18 FCC Rcd at 6776 ¶ 126. The *NPRM* also sought comment concerning mobile phone service, another non-video service that potentially may be provided using MDS/ITFS spectrum. *Id.*

[293] *Id*. at 6774-76 ¶¶ 122-126. The *NPRM* also deemed it unlikely that cable operators would acquire MDT/ITFS licenses in order to foreclose entry by a wireless MVPD provider and observed that new MDS licensees are "very unlikely" to be entrants into the MVPD markets, particularly since MDS video providers have penetrated very few markets. *Id*. at 6774-75 ¶ 122.

[294] *Id*. at 6774-76 ¶¶ 123, 126.

[295] *Id.*

[296] *See 1990 R&O*, 5 FCC Rcd at 6417 ¶ 42. Before 1990 the Commission permitted cable systems to operate MDS (and OFS) channels within their franchise areas. *See id*. at 6416 ¶ 41.

ability to provide significant competition to incumbent cable systems.[297] The Commission concluded that although the enhancement of existing multi-channel services was a significant and desirable benefit, a greater benefit was to be found in the introduction of competition to then-existing multi-channel services (essentially, incumbent cable systems).[298] Accordingly, based on its observation that wireless cable service ranked among the "most imminent" sources of competition to incumbent cable systems, the Commission decided to generally prohibit a cable operator, either directly or indirectly, from acquiring a license (either through an application for a new station, assignment of a license, or transfer of control) or lease for an MDS station whose PSA overlaps its franchise area, or a lease for use of an ITFS station whose transmitter was within 20 miles of any part of its franchise area, unless there was another cable system in that franchise area operating in a substantial portion of the PSA of the proposed MDS station.[299]

167. The 1990 cable cross-ownership restrictions contained an exemption that allowed cable operators to acquire MDS spectrum in rural areas that would otherwise remain unserved by wireless cable.[300] The rural exemption was modeled after the cable/telco cross-ownership prohibition, which the Commission expected to "speed the introduction of multichannel service to customers in sparsely populated areas without appreciably reducing realistic and desired opportunities for wireless cable operators to introduce service competitive with existing cable service."[301] The *1990 R&O* also grandfathered existing cable/wireless operations and contracts, rather than forcing divestiture, on the ground that divestiture would be a hardship to cable operators and their customers and would be unnecessary given the limited number of systems operated by cable companies.[302] Finally, the *1990 R&O* created a local programming exception to the licensing and leasing prohibitions of Sections 21.912 and 74.931(e), and created a "limited exception" to the 1990 prohibitions for "MDS and ITFS channels used in the delivery to multiple cable headends or locally produced programming, that is, programming produced in or near the cable operator's franchise area and not broadcast on a television station available within that franchise area."[303] Under this exception, which the Commission expected to permit and promote an additional outlet for locally originated programming, a cable operator was permitted "one MDS channel, or

[297] *Id.* at 6417 ¶ 42.

[298] *Id.* In the early 1990s, the MVPD market differed greatly from that market today. For example, in 1993, cable services accounted for nearly 100% of the MVPD market while DBS service was launched for the first time that same year. In contrast, as of 2003, DBS services accounted for 21.6% of the MVPD market nationwide while MDS services accounted for a mere 1.3%. *See In the Matter of Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, Tenth Annual Report, MB Docket No. 03-172, 19 FCC Rcd 1606 ¶¶ 4, 5 & 16 (rel. Jan. 28, 2004) (*Tenth MVPD Report*).

[299] *1990 R&O*, 5 FCC Rcd at 6417 ¶ 42.

[300] The application process adopted for cable operators provided that otherwise acceptable cable system applications for MDS channels would be put on public notice for 30 days and could be granted provided no non-cable party filed an application. *Id.* at 6417 ¶ 43. The Commission also sought comment on how to define a local programming exception to the 1990 restrictions. *1991 R&O*, 6 FCC Rcd at 6799 ¶ 34.

[301] *Id.* at 6799 ¶ 37.

[302] *Id*. at 6799 ¶ 39. The Commission also grandfathered, on equitable grounds, cable applications for MDS channels filed before February 8, 1990, as well as lease agreements between cable and MDS or ITFS entities for which a lease or a firm and enforceable agreement was signed prior to the same date. *Id.*

[303] *Id*. at 6800 ¶ 41.

its equivalent in ITFS excess capacity, in an MDS PSA."[304] This local programming exception, together with the restrictions on that exception, also applied to leases executed to facilitate the provision of local programming.[305] If local programming was terminated, any MDS license granted under the exception was to be automatically forfeited on the day after the local programming was discontinued.[306]

168. In 1992, Section 613(a)'s restrictions on cable cross-ownership were enacted as part of legislation that generally directed the Commission to set "horizontal" limits on cable operators' scale (i.e., the number of cable subscribers an operator could reach through its cable systems, or systems in which it had an attributable interest) and "vertical" limits on cable operators' integration with video programmers (i.e., suppliers of video programs to be carried over the cable operators' systems).[307] In 1993, the Commission determined that its 1990 cable cross-ownership rules, albeit with some modification, "effectively implement[ed]" the cable cross-ownership restrictions of Section 613(a).[308] Those preexisting rules generally prohibited cable systems that are the sole providers in their franchise areas from holding MDS licenses and from leasing time on MDS or ITFS stations within their franchise areas.[309] The *1993 Cable R&O* sought to allow cable operators greater flexibility in providing MDS in unserved portions of their franchise areas by prohibiting cable/MDS cross-ownership only if a cable operator's actual service area overlapped with the MDS PSA.[310] This was more lenient than the 1990 rules, which prohibited cable cross-ownership throughout the franchise area and the MDS protected area if there was any overlap between the two.[311]

169. In the decade following the *1993 Cable R&O*, MDS service initially gained market share

[304] *Id*. In applying for an MDS channel, a cable operator was required to provide the proposed local programming within one year. *Id.*

[305] *Id.*

[306] *Id.*

[307] *See, e.g.*, Time Warner Entertainment Co. v. FCC, 240 F.3d 1126, 1128 (D.C. Circuit 2001), reh'g and reh'g en banc denied, May 4, 2001. *Time Warner* rejected restrictions the Commission, imposed pursuant to Section 613(f)(1) of the 1992 Cable Act, which was codified as 47 U.S.C. § 533(f)(1), in part on the ground that the Commission failed to show a non-conjectural harm to competition that was prevented by such restrictions. *Time Warner*, 240 F.3d at 1133-1136 ("Congress also sought to 'ensure that cable operators continue to expand, where economically justified, their capacity,'…and it specifically directed the FCC, in setting the ownership limit, to take into account the 'efficiencies and other benefits that might be gained through increased ownership or control.'") (quoting 1992 Cable Act, § 2(b)(3)).

[308] *See* In the Matter of Implementation of Section 11 and 13 of the Cable Television Consumer Protection and Competition Act of 1992, Horizontal and Vertical Ownership Limits, Cross-Ownership Limitations, and Anti-Trafficking Provisions, *Report and Order and Further Notice of Proposed Rulemaking,* 8 FCC Rcd 6828, 6842 ¶ 101 (1993) *(1993 Cable R&O)*.

[309] Section 613 was added to the Act by Section 11(a) of the Cable Television Consumer Protection and Competition Act 1992, Pub. L. No. 102-385, 106 Stat. 1460 (1992 Cable Act). *See 1993 Cable R&O,* 8 FCC Rcd at 6841-44 ¶¶ 92-112. The rules in existence when Section 613 was enacted had been promulgated in proceedings that began in 1990. *See 1991 R&O*, 6 FCC Rcd at 6799 ¶ ***34*** (summarizing *Report and Order* in Gen. Docket Nos. 90-54 and 80-113, 5 FCC Rcd 6410 (1990)).

[310] *1993 Cable R&O*, 8 FCC Rcd at 6843 ¶ 103.

[311] *See Tenth MVPD Report,* 19 FCC Rcd at 1672-73 ¶ 103.

but then peaked in mid-1998, with MDS representing only 1.3% of the MVPD market.[312] In January 2004, we observed that the wireless cable industry provides competition to the cable industry in only limited areas and that subscribership to MDS has been steadily declining over the last several years, notwithstanding that the deployment and use of MDS services (together with large dish satellite services) has contributed significantly to the early acceptance of non-wireline alternatives to traditional MVPD service.[313] While cable served almost 100% of the nation's MVPD subscribers in 1993, in 2003, that share had fallen to approximately 75%, with DBS providing the most significant competitive alternative with a 21.6% share of the national MVPD market.[314]

170. In 1998, the Commission released the *Two-Way Order* permitting MDS/ITFS licensees to construct digital two-way Internet service via cellularized communication systems.[315] As a result, MDS/ITFS licensees began to turn away from offering video service and began to focus on data delivery service.[316] In the *NPRM*, we observed that the typical broadband internet market is highly concentrated.[317] Despite this concentration, we noted that in some circumstances there could be substantial benefits to allowing the incumbent cable or DSL operator to have more access to MDS/ITFS spectrum.[318] We noted that such cable or DSL operator access may benefit rural areas where expensive upgrades to cable or DSL plants were not feasible.[319] We sought comment as to whether allowing incumbent cable operators and/or DSL providers to be eligible to obtain MDS/ITFS licenses could have a negative impact on some broadband interest markets.

171. *Discussion.* Section 613(a) of the Act states:[320]

> It shall be unlawful for a cable operator to hold a license for multichannel multipoint distribution service, or to offer satellite master antenna television service separate and apart from any franchised cable service, in any portion of the franchise area served by that cable operator's cable system.
>
> The Commission may waive the requirements of this paragraph to the extent the Commission determines is necessary to ensure that all significant portions of a franchise area are able to obtain video programming.[321]

[312] *See id*. at 1613-16 ¶ 16.

[313] *Id.* at 1610 ¶ 9.

[314] *Id.* at 1608-9, 1613-16 ¶¶ 4 (cable market share), 5 (DBS growth after 1988 initial authorization and 1993 service initiation) & 16 (DBS market share).

[315] *Two-Way FNPRM*, 13 FCC Rcd at 19112.

[316] *Tenth MVPD Report*, 19 FCC Rcd at 1663-64 ¶ 86.

[317] *NPRM*, 18 FCC Rcd at 6774-76 ¶¶ 123-125.

[318] *Id*. at 6775-76 ¶ 125.

[319] *Id*.

[320] 47 U.S.C. § 553(a).

[321] 47 U.S.C. § 553(a)(2).

172. The purposes behind the cable/MMDS cross-ownership restrictions were to address a concern "that common ownership of different means of video distribution may reduce competition and limit the diversity of voices available to the public" and to prevent a cable operator from warehousing potential competition.[322] Since channels in the new BRS and EBS bands may continue to be used for video distribution, these concerns are still potentially relevant in the BRS/EBS band. Moreover, since MMDS licensees will become licensees in the BRS/EBS band, we do not believe that it would be consistent with Congressional intent to allow cable operators to hold BRS/EBS licenses for the purpose of distributing multichannel video service. Accordingly, subject to the present exceptions in our rules, we will continue to prohibit cable operators from holding BRS/EBS licenses and using those licenses to offer multichannel video programming service.

173. On the other hand, we do not believe that the statute requires us to prohibit cable operators from holding BRS/ITFS licenses for the purpose of providing broadband data services or voice. We conclude that Section 613(a) does not apply to broadband services. The Commission did not allow MMDS licensees to provide such services until the Digital Declaratory Ruling was released in 1996, which was four years after the statute was enacted. Today, we create a new radio service designed to allow licensees to offer services that were not even contemplated when the statute was passed. We do not see any basis in the statutory language or legislative history for interpreting the statute so as to prohibit cable operators from providing services that did not exist when the prohibition was enacted. We note that Earthlink argues that Section 613 bars cable operators from acquiring MDS spectrum to offer non-video services, and that waiving Section 613's restrictions for cable operators would thwart broadband competition.[323] We reject that argument because the statute was clearly designed to address competition in the multi-channel video programming market, not broadband competition. We also reject as speculative and unsupported Earthlink's argument that Section 613 was left in place when Congress passed the 1996 Act because that provision is necessary to prevent the anti-competitive effects that would occur if a cable operator were able to purchase or control alternative facilities that a competitor might use to compete with the incumbent cable operator.[324]

174. With respect to DSL providers, there is no statutory prohibition similar to Section 613 that would require us to consider cross-ownership restrictions and, in any event, ILECs already have access to MDS/ITFS spectrum and this existing eligibility has caused no apparent problems. We also reject as inapposite Earthlink's argument that Section 652 of the Act, which prohibits cross-ownership of an ILEC and a cable television system, should be interpreted to support a general ban on common ownership of alternative broadband facilities.[325] Nothing in Section 652 addresses eligibility restrictions on radio spectrum.

175. Despite these bases for declining to impose cross-ownership restrictions on broadband services, Earthlink, Teton and NAF favor imposing such restrictions, arguing that the high broadband internet market share that cable operators and DSL providers enjoy gives those parties the incentive to acquire BRS/ITFS spectrum in order to thwart competition in that market.[326] When assessing the need to

[322] *1993 Cable R&O,* 8 FCC Rcd at 6841 ¶¶ 92-94.

[323] Earthlink Comments at 15-16.

[324] Earthlink Comments at 16-17.

[325] Earthlink Comments at 17.

[326] *See* Earthlink Comments at 17; Teton Comments at 6-7 ("… Teton believes that the Commission should refrain from opening eligibility for MDS spectrum to cable and DSL interests. At a minimum, the Commission should (continued….)

restrict the opportunity of any class of service provider to obtain spectrum for the provision of communications services, our overall goal has been to determine whether the restriction is necessary to ensure that consumers will receive communications services in a spectrum-efficient manner and at reasonable prices. Under our precedent, eligibility restrictions are imposed only when (1) there is a significant likelihood of substantial competitive harm in specific markets, and (2) eligibility restrictions will be effective in addressing such harm. Under this standard, the Commission relies on market forces to guide license assignment absent a compelling showing that regulatory intervention to exclude potential participants is necessary.[327] Those in favor of restricting the eligibility of cable operators and DSL providers to acquire BRS/ITFS licenses have not shown that this standard is met. They have not cited relevant market facts and circumstances sufficient to demonstrate that the eligibility of such service providers is likely to result in substantial competitive harm or that, even if specific markets experienced harm to competition, the eligibility restrictions they advocate would be effective in eliminating that harm.[328]

176. We conclude therefore that cable operators and ILECs alike should be allowed to acquire or lease BRS/ITFS spectrum in order to provide non-video services like broadband internet access. In light of Section 613(a)'s language and context we do, however, prohibit cable operators from acquiring BRS/ITFS licenses outright for the purpose of providing MVPD service. We also retain the related ban on cable operators leasing BRS/ITFS spectrum within their franchise areas for the purpose of providing MVPD service, but allow leasing for other purposes.

3. Leasing and Secondary Markets

177. In 2003, we took significant steps to facilitate the development of Secondary Markets in spectrum usage rights involving our wireless radio services when we adopted our *Secondary Markets Report and Order* and *Further Notice of Proposed Rulemaking*.[329] In the *Report and Order*, we established policies and rules to enable spectrum users to gain access to licensed spectrum by entering into different types of spectrum leasing arrangements with licensees in most wireless radio services.[330] In addition, we streamlined the Commission's approval procedures for license assignments and transfers of control in most wireless radio services.[331] In the *Further Notice*, we proposed several additional steps we could take to facilitate the development of these Secondary Markets.[332] We also sought comment on whether the spectrum leasing policies should be extended to, inter alia, MDS and ITFS.[333] Given that we are

(Continued from previous page)
retain the cable/MDS cross ownership restrictions in rural markets where DSL and cable have a virtual lock on the broadband market."); Teton Reply Comments at 14 (same); NAF Reply Comments at 35 ("In the absence of cross-ownership limits, cable and LEC competitors will simply acquire rights in competing spectrum, blocking access to competitors.").

[327] *NPRM,* 18 FCC Rcd at 6773, ¶ 121.

[328] *See NPRM,* 18 FCC Rcd at 6773-74, ¶ 121.

[329] *See generally* Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets, *Report and Order and Further Notice of Proposed Rulemaking*, 18 FCC Rcd 20604 (2003) (*Secondary Markets Report and Order* and *Further Notice*, respectively) Erratum, 18 FCC Rcd 24817 (2003).

[330] *See generally Report and Order*, 18 FCC Rcd at 20607-82 ¶¶ 1-194.

[331] *See generally id.* at 20682-85 ¶¶ 195-203.

[332] *See generally Secondary Markets Further Notice,* 18 FCC Rcd at 20687-20719 ¶¶ 213-323.

[333] *Id.* at 20708-16 ¶¶ 288-314.

undertaking a comprehensive examination of the rules relating to these services in this *Report and Order*, and given the close relationship between the leasing rules and other issues raised in this proceeding, we will address in this *Report and Order* the question raised in the *FNPRM* of whether the rules adopted in the *Secondary Markets Report and Order* should apply to the BRS/EBS spectrum.

178. Commenters generally supported extending the spectrum leasing policies adopted in the *Report and Order* to ITFS and MDS leasing.[334] Commenters also recommended grandfathering existing leasing arrangements that have evolved under the distinct leasing model historically applicable to ITFS.[335] NIA/CTN also argue that the substantive requirements currently applicable to ITFS leasing should continue to apply to leases entered into under the Secondary Markets spectrum leasing framework.[336]

179. We agree with the commenters that we should extend the rules and policies adopted in the *Secondary Markets Report and Order* to the BRS/EBS spectrum. In the *Secondary Markets Report and Order*, we took important first steps to facilitate significantly broader access to valuable spectrum resources by enabling a wide array of facilities-based providers of broadband and other communications services to enter into spectrum leasing arrangements with Wireless Radio Service licensees. These flexible policies continue our evolution toward greater reliance on the marketplace to expand the scope of available wireless services and devices, leading to more efficient and dynamic use of the important spectrum resource to the ultimate benefit of consumers throughout the country. Facilitating the development of these Secondary Markets enhances and complements several of the Commission's major policy initiatives and public interest objectives, including our efforts to encourage the development of broadband services for all Americans, promote increased facilities-based competition among service providers, enhance economic opportunities and access for the provision of communications services, and enable development of additional and innovative services in rural areas.[337] We agree with the commenters that there is no reason to deprive licensees in the BRS/EBS spectrum of the benefits of these rules and policies. We also agree with WCA that extending those rules and policies to the BRS/EBS spectrum will establish regulatory parity with other services that may be used to provide broadband services.[338]

180. We also agree with commenters that existing leases entered into under our existing ITFS leasing framework should be grandfathered, so long as the leases remain in effect and are not materially changed. We agree with NIA/CTN that it would be unduly burdensome to force licensees that wish to have their existing leases remain in effect to renegotiate those leases to comply with our Secondary Markets policies and rules.[339] Specifically, although our Secondary Market rules limit spectrum leasing arrangements to the length of the license term, we will allow pre-existing ITFS leases to remain in effect for up to fifteen years, consistent with our current rules.[340] With respect to future spectrum leasing arrangements entered into pursuant to our Part 27 rules for EBS, however, consistent with our treatment of

[334] *See* BellSouth Comments at 6-10; NIA/CTN Comments at 1-9 and Reply Comments at 1-3; SBC Comments at 12-13; Spectrum Market LLC Comments at 4-5; Sprint Comments at 4-6; WCA Comments at 1-8. Unless otherwise noted, all comments cited in this section were filed in WT Docket No. 00-230.

[335] WCA Comments at 6-7, NIA/CTN Comments at 7-8.

[336] NIA/CTN Comments at 5-6.

[337] *See generally Secondary Markets Report and Order,* 18 FCC Rcd at 20607 ¶ 2.

[338] WCA Comments at 7.

[339] NIA/CTN Comments at 7.

[340] *See id.* at 8.

other services, we believe it is appropriate to limit the spectrum lease term to the length of the license term in question.

181. In addition, we agree with NIA/CTN that the substantive use requirements that have historically applied to ITFS must remain in effect in the spectrum leasing context.[341] NIA/CTN describes the "most significant" limitations as: "(i) there must be certain minimum educational uses of ITFS spectrum (typically, a minimum of 20 hours per 6 MHz channel per week); (ii) for analog facilities, there must be a right to recapture an additional amount of capacity for educational purposes (typically, 20 more hours per channel per week); for digital facilities, the licensee must reserve at least 5% of its transmission capacity for educational purposes; (iii) the lease term may not exceed 15 years; (iv) the ITFS licensee must retain responsibility for compliance with FCC rules regarding station construction and operation; (v) only the ITFS licensee can file FCC applications for modifications to its station's facilities; and (vi) the ITFS licensee must retain some right to acquire the ITFS transmission equipment, or comparable equipment, upon termination of the lease agreement."[342] As NIA/CTN notes, the purpose behind these limitations was to maintain the traditional educational purposes of ITFS.[343] We believe that the continued application of these substantial use limitations, as well as the retention of ITFS eligibility requirements in Section C, will facilitate the traditional educational purposes of ITFS. Accordingly, we will apply the spectrum leasing rules and policies adopted in the Secondary Markets proceeding to the BRS/EBS band, while grandfathering existing leases entered into under our prior leasing policy and retaining EBS substantive use requirements.

D. Standardization of Practices and Procedures

1. Consolidation of Procedural Rules in Part 1

182. *Background.* In the ULS *R&O*, the Commission consolidated the majority of its wireless services procedural rules into Part 1.[344] By consolidating the procedural rules in Part 1, the Commission improved the consistency of its rules across wireless services and provided a single point of reference for applicants, licensees, and members of the public seeking information regarding our licensing procedures.[345] Additionally, the consolidation reduced confusion among applicants and licensees, accelerated the application process, and improved the speed with which wireless carriers were able to provide service to the public.[346] Because consolidation of procedural rules into Part 1 has proven beneficial to other wireless services, in the *NPRM*, we sought comment on consolidating the MDS and ITFS procedural rules into Part 1 of the Commission's Rules.[347]

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[341] *Id*. at 5-6.

[342] *Id*. at 4.

[343] *Id.*

[344] Biennial Regulatory Review – Amendment of Parts 0, 1, 13, 22, 24, 26, 27, 80, 87, 90, 95, 97, and 101 of the Commission's Rules to Facilitate the Development and Use of the Universal Licensing System in the Wireless Telecommunications Services, *Report and Order*, 13 FCC Rcd 21027, 21054 ¶ 56 (1998) (*ULS R&O*). *See NPRM*, 18 FCC Rcd at 6787 ¶ 159.

[345] *See id*.

[346] *See id*.

[347] *See id.* at 6786 at ¶ 159.

183. *Discussion.* After reviewing the comments we received on this issue, we conclude that we will consolidate the BRS and EBS procedural rules into Subpart F of Part 1 of the Commission's Rules,[348] which contains the rules applicable to the processing of applications for all services in the Universal Licensing System. We agree with commenters that this action will decrease confusion concerning the application of our BRS and EBS rules. For example, the Coalition recognizes that the Commission's Wireless Telecommunications Bureau (WTB) has efficiently processed applications under Subpart F of Part 1 of the Commission's Rules and believes that, with appropriate consideration of the particular needs of MDS and ITFS, Part 1 can be modified to provide for the licensing of MDS and ITFS facilities without undue impact on processing systems.[349] Likewise, Bell South supports standardizing filing requirements and transition to new forms and processing rules through consolidating procedural rules into Part 1 like the majority of wireless services.[350] OWTC also approves of a consolidation of the MDS and ITFS application procedures and explains that since regulation of the MDS service was transferred from the former Mass Media Bureau to WTB (and from BLS to ULS), it is logical to consolidate the MDS procedural rules into Part 1 as is done in the majority of wireless services.[351] Similarly, Teton is in favor of the Commission merging MDS and ITFS into a single MDS/ITFS spectrum with streamlined processing rules.[352] Accordingly, in consolidating the BRS and EBS procedural rules into Subpart F of Part 1 of the Commission's Rules, we adopt rules that benefit applicants, licensees and members of the public, by streamlining our processing rules as discussed in the sections that follow. By this action, we also realize a key policy objective in this rulemaking, which is simplifying the licensing process and deleting obsolete or unnecessary regulatory burdens.

2. Consolidation of Service Specific Rules in Part 27

184. *Background.* In the *NPRM*, [353] we noted that our MDS and ITFS service specific rules are currently contained in three rule parts - Parts 21, 73 and 74.[354] Part 21 contains our MDS rules while Parts 73 and 74 contain our ITFS rules. Although MDS and ITFS licensees use their licenses to provide similar services, our rules treat these licensees differently. For example, with regard to modifications, a major modification in MDS is currently triggered by, among other things, a change in the geographic coordinates of a station's transmitting antenna of more than ten seconds of latitude or longitude or both, or any change which increases the antenna height by three meters or more.[355] In contrast, a major change to an ITFS Station is triggered by, among other things, relocating a facility's transmitter site by 10 miles or more, or increasing the transmitting antenna height by 25 feet or more.[356]

185. In the *NPRM*, we stated that we believe that regulatory parity will lead to efficiency in this band and spur the development of new and improved services for the public. Additionally, we stated

[348] *See* 47 C.F.R. § 1. 901 *et seq*.

[349] *See* Coalition Comments at 135.

[350] *See* BellSouth Comments at 13-14 n.21; OWTC Comments at 6.

[351] *See* OWTC Comments at 6.

[352] *See* Teton Comments at 15-16.

[353] *See NPRM,* 18 FCC Rcd at 6786 ¶ 160.

[354] *See* 47 C.F.R. §§ 21.1 *et seq.*, 73.1 *et seq*., and 74.1 *et seq*.

[355] *See* 47 C.F.R. § 21.23.

[356] *See* 47 C.F.R. § 74.911(b).

that consolidating the MDS and ITFS service specific rules into one rule part will reduce confusion and provide a single reference point for these similar services. Because we believe that consolidation will benefit applicants, licensees and members of the public, we proposed to consolidate the MDS and ITFS service specific rules into Part 101. However, we also sought comment on alternative means of consolidating the rules relating to these services, such as incorporating the rules into Parts 21 or 27 of our Rules.[357]

186. *Discussion.* After careful consideration of the comments we received on this issue, we conclude that consolidating the service specific rules for BRS and EBS into Part 27 of the Commission's Rules is the most sensible approach given the flexible use and geographically-licensed service areas that are at the heart of our Part 27 rules.[358] As an initial matter, the licensing plan and service rules we adopt today are consistent with the fundamental goals established in the Commission's November 1999 Spectrum Policy Statement, which includes promoting greater efficiency in spectrum markets.[359] The Commission therein recognized that where appropriate, greater efficiency can be achieved through flexibility, which can be permitted through the use of relaxed service rules.[360] Regarding the encouragement of emerging telecommunications technologies, the Commission also recognized that there are substantial public interest benefits to harmonizing the rules applicable to like services including efficiency in spectrum markets and regulatory neutrality, which help create a level playing field across technologies and thereby promote more effective competition. The Commission in the 1999 Spectrum Policy Statement also observed that such a structure would permit reliance on the marketplace to achieve the highest-valued use of the spectrum, thereby ensuring that the Commission and its processes do not become a bottleneck in bringing new radio communications services and technologies to the public.[361]

187. We believe there are substantial public interest benefits to harmonizing rules applicable to like services, which is best accomplished by placing the service specific rules for BRS/EBS in Part 27 of the Commission's Rules. The Coalition asserts that the MDS and ITFS services should be regulated pursuant to Part 27 of the Commission's Rules, which the Commission originally created for the Wireless Communications Service ("WCS") and has since applied to other flexible use, geographically licensed wireless services.[362] Likewise, EarthLink supports discarding the Commission's broadcast-style regulatory

[357] *See id.*

[358] *See* 47 C.F.R. § 27.1 *et seq*. In explaining the Part 27 objectives, the Commission stated that "we believe that a flexible licensing approach will allow licensees the freedom to determine the services to be offered and the technologies to be used in providing those services. This flexibility will better enable licensees to use their assigned frequencies in response to market forces…In light of these considerations, we believe that the general application of our Part 27 licensing and operating rules will promote flexible and efficient use of the unpaired 1390-1392 MHz, 1670-1675 MHz, and 2385-2390 MHz bands and the paired 1392-1395 MHz and 1432-1435 MHz bands. We agree with the commenters that application of our Part 27 rules will provide licensees a streamlined licensing framework that will foster innovation, flexible use and regulatory certainty." Amendments to Parts 1, 2, 27 and 90 of the Commission's Rules to License Services in the 216-220 MHz, 1390-1395 MHz, 1670-1675 MHz and 2385-2390 MHz Government Transfer Bands, WT Docket No. 02-8, RM-9267, RM-9692, RM-9797, RM-9854, RM-9882, *Report and Order*, 17 FCC Rcd 9980, 9988 ¶¶ 10-11 (2002) (*27 MHz R&O*) (footnotes omitted).

[359] *See 1999 Spectrum Policy Statement*, 14 FCC Rcd at 19870-71 ¶ 9.

[360] *See id.*

[361] *See id*.

[362] *See* Coalition Comments at 132-133.

model for MDS and ITFS and supports switching to a Part 27-like regulatory scheme.[363] Consistent with our determinations with respect to other wireless services, the BRS/EBS spectrum's regulatory structure assumes that consumer benefits will be maximized if BRS/EBS licensees are able to take advantage of the flexible use standard in Part 27. We believe that applying the flexible use standard in Part 27 to BRS and EBS licensees will enable licensees to construct and operate facilities within their GSAs with the least amount of regulation.[364]

188. We note that BellSouth supported the proposal in the *NPRM* to consolidate service-specific rules into Part 101, but did not voice any opposition to placing the service specific rules in Part 27.[365] On the other hand, OWTC prefers to keep the service rules for MDS, ITFS and other fixed wireless services separate. OWTC believes that while consolidation of procedural rules is sensible and could lead to a streamlining of application and other procedures, the service rules for each unique service must be clear and unambiguous in order to prevent licensee and market confusion.[366]

189. However, we agree with the Coalition that Part 101 is not best suited for the BRS and EBS service specific rules. Part 101 of the Commission's rules generally was not created for the flexible use, wide-area services that BRS and EBS services will be authorized to provide as the BRS/EBS spectrum.[367] Furthermore, we note that the Commission created Part 101 to simplify and conform the rules for point-to-point, Part 21 common carrier and Part 94 private operational fixed microwave services,[368] in recognition of the fact that those services shared many of the same frequency bands, used substantially the same equipment and had converged their technical standards over time.[369] In so doing, the Commission specifically excluded MDS and ITFS from Part 101, noting that "[t]he ITFS and MDS services differ from the services to be included in Part 101 in terms of policy considerations, applicable rules, and technical standards."[370] We concur with the Coalition that to the extent that the regulatory regimes applicable to MDS and ITFS have changed, they have moved further away from those imposed on the typical Part 101 service.[371]

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[363] *See* EarthLink Comments at 7.

[364] *See 27 MHz R&O*, 17 FCC Rcd at 9988 ¶¶ 9-10; *see also supra* n.358.

[365] *See* BellSouth Comments at 13-14 n.21.

[366] *See* OWTC Comments at 7. We do note that OWTC proposed an alternative approach to create consolidated service rules for similar aspects of the respective unique services, but then have distinct service rule subparts when the historical service rules diverge from each other for each unique service.

[367] *See* 47 C.F.R. 101.1 *et seq.* "[W]e find that a flexible, market-based approach is the most appropriate method for determining services rules in [the Upper 700 MHz Band]….To comport with the range of potential service applications on these bands, and our intended use of Part 27 as a basic regulatory framework for service rules governing other bands, we have also recast the structure of the Part 27 rules to reflect their revised scope." In the Matter of Service Rules for the 746-764 and 776-794 MHz Bands, and Revisions to Part 27 of the Commission's Rules, *First Report and Order*, 15 FCC Rcd 476, 478 ¶ 2 (2000) (footnotes omitted) (*Upper 700 MHz First R&O*).

[368] *See* 47 C.F.R. §§ 21.1 *et. seq.* and 90.1 *et. seq.*

[369] *See* Reorganization and Revision of Parts 1, 2, 21, and 94 of the Rules to Establish a New Part 101 Governing Terrestrial Microwave Fixed Radio Services, *Notice of Proposed Rulemaking,* 10 FCC Rcd 2508, 2509 ¶ 2 (1994) (*Part 101 NPRM*).

[370] *Id.,* 10 FCC Rcd at 2509 n. 4 (1994).

[371] *See* WCA Comments at 134. *See also* discussion of regulatory fees in *FNPRM* at V.D, *infra.*

190. While it is true that the Commission regulates LMDS licensees under Part 101 and LMDS has some similarities to BRS, the decision to regulate LMDS pursuant to Part 101 predated the creation of Part 27, and the Commission has since recognized that Part 27 is better suited for flexible use services.[372] Although geographically licensed wireless services in the 24 GHz and 39 GHz bands are also regulated under Part 101, this is attributable to the fact that licensees in those bands were regulated under Part 101 prior to the Commission's adoption of geographic licensing rules for such services.[373] Accordingly, we adopt service specific rules for BRS and EBS in Part 27 of the Commission's Rules, thereby providing a single reference point for these similar services, as opposed to having the rules for these services in three different rule parts. This streamlining will benefit applicants, licensees and the public by promoting innovation and maximizing flexibility in the service rules.

3. Standardization of Major and Minor Filing Requirements*:*

191. *Background.* MDS licensees currently submit FCC Forms 304 or 331 to modify their licenses pursuant to Sections 21.40 and 21.41 of our Rules.[374] The Commission will not grant a "major modification" to an MDS station unless it finds that the modification is in the public interest and in compliance with Communications Act.[375] A major modification to an MDS license includes amendments that require submission of an environmental assessment, result in a substantial and material alteration of the proposed service, specify a substantial change in beneficial ownership or control, or is deemed substantial by the Commission pursuant to section 309 of the Communication Act.[376]

192. In contrast, EBS licensees currently file a formal application on FCC Form 330 for any of the following kinds of changes or modifications to its transmission system: adding a new channel; changing channels; changing polarization; increasing the EIRP in any direction by more than 1.5 dB; increasing the transmitting height by twenty-five feet or more; or relocating a facility's transmitter site by

[372] *See, e.g.,* Amendment to Parts 2, 15 and 97 of the Commission's Rules To Permit Use of Radio Frequencies Above 40 GHz for New Radio Applications, *Memorandum Opinion and Order on Reconsideration and Notice of Proposed Rulemaking*, 13 FCC Rcd 16947, 16969-70 ¶ 54 (1998) ("While the Commission has adopted service rules for LMDS in Part 101 of the Commission's Rules, the Commission has also adopted a new set of service rules, in Part 27 of the Commission's Rules, for wireless services in the 2.3 GHz band. These rules provide a licensing framework that may be more appropriate than the Part 101 rules in that they provide for much greater flexibility in the types of services that can be provided and in the technical and operational rules that govern those services.") (footnotes omitted).

[373] *See generally* Amendment of the Commission's Rules to Relocate the Digital Electronic Message Service From the 18 GHz Band to the 24 GHz Band and to Allocate the 24 GHz Band For Fixed Service, *Order,* 12 FCC Rcd 3471, 3476 ¶ 13 (1997); *39 GHz R&O*, 12 FCC Rcd at 18637 ¶ 77 (1997).

[374] 47 C.F.R. §§ 21.40, 21.41.

[375] *See* 47 C.F.R. § 21.40. A major modification for an MDS license includes a substantial modification of the engineering proposal such as (but not limited to) a change in, or addition of, a radio frequency channel; a change in polarization of the transmitted signal; a change in type of transmitter emission or an increase in emission bandwidth of more than ten percent; a change in the geographic coordinates of a station's transmitting antenna of more than ten seconds of latitude or longitude or both; any change which increases the antenna height by three meters or more; any technical change that would increase the effective radiated power in any direction by more than 1.5 dB; or any changes or combination of changes that would cause harmful electrical interference to an authorized facility or result in a mutually exclusive conflict with another pending application. 47 C.F.R. § 21.23.

[376] *Id.*

ten miles or more.[377] Our current rules further provide that applications for "major changes" to existing EBS facilities that are mutually exclusive with other such applications or with applications for new stations are subject to competitive bidding.[378] EBS minor modification applications may be filed at any time and are not be subject to competitive bidding.[379] Subject to Commission approval, our existing rules also permit certain parties to involuntarily modify the facilities of an existing EBS licensee in certain situations.[380]

193. In sharp contrast to the policies described above, the Commission has adopted one streamlined set of modification rules for services license using ULS.[381] Under ULS, we treat all major modifications as new applications.[382] Licensees may make minor modifications as a matter of right without prior Commission approval (other than pro forma assignments and transfers) within thirty days of implementing such changes.[383] Where other rule parts permit licensees to make permissive changes to technical parameters without notifying the Commission (e.g., adding, modifying, or deleting internal sites), no notification is required when making a modification pursuant to the ULS rules.[384] This consolidation of modification rules has led to efficient processing of modification applications in ULS. Therefore, noting that the license modification rules for MDS and ITFS are currently spread across seven rules, we sought comment in the *NPRM* on consolidating these modification rules in one rule part.[385] In this connection, we proposed to consolidate the modification rules to determine major and minor modifications for MDS and ITFS licenses using the ULS Rules in Part 1 of the Commission's Rules.[386]

194. *Discussion.* After reviewing the limited comments we received on this issue, we conclude that there are substantial benefits to employing the simplified approach we use in ULS to govern modifications for BRS/EBS licensees. BellSouth supports the proposed new rules regarding standardizing filing requirements.[387] IMLC supports the Commission's proposals to eliminate the various unnecessary and unhelpful filings which MDS licensees must make, stating that outdated and unnecessary reports and requirements for MDS licensees should be abolished.[388] The Coalition believes that minor revisions to Section 1.929 are required to reflect the MBS Licensing Scheme and that with the development of appropriate individual standards for determining whether MBS filings are "major" or "minor," Section 1.929 can readily be amended to consolidate the MDS and ITFS major and minor change and major and

[377] 47 C.F.R. § 74.951.

[378] 47 C.F.R. § 73.5000. We note that our rules permit ITFS licensees to exchange channels evenly with each other or with MDS licensees after filing pro forma applications. 47 C.F.R. § 74.902(f).

[379] Implementation of Section 309(j) of the Communications Act – Competitive Bidding for Commercial Broadcast and Instructional Television Fixed Service Licenses, *First Report and Order,* 13 FCC Rcd 15920 ¶ 207 (1998).

[380] *See* 47 C.F.R. § 74.986.

[381] *See* 47 C.F.R. § 1.929.

[382] *See* 47 C.F.R. § 1.947.

[383] *See* 47 C.F.R. § 1.929.

[384] *See* 47 C.F.R. § 1.947(b).

[385] *See NPRM,* 18 FCC Rcd at 6786 ¶ 160.

[386] *See NPRM,* 18 FCC Rcd at 6786 ¶¶ 161-163; *see also* 47 C.F.R. § 1.901 *et. seq.*

[387] *See* BellSouth Comments at 13-14 n.21.

[388] *See* IMLC Comments at iii, 8.

minor amendment rules.[389]

195. We believe that using our Part 1 ULS modification rules for BRS and EBS modifications will simplify the licensing process by removing obsolete or unnecessary regulatory burdens and that no special rules are required for modifications to the MBS as suggested by the Coalition. The Coalition's belief that special modifications are required pursuant to Section 1.929 of our rules is premised on the assumption that we would employ site-based licensing for the MBS. However, inasmuch as we have adopted geographic area licensing for the entire band, including the MBS,[390] we need not adopt the modifications proposed by the Coalition.[391]

196. Employing the Part 1 ULS approach, as described above, for modifications to BRS and EBS licenses will reduce confusion regarding the appropriate rules to follow, increase the speed with which the Commission staff processes applications and will eliminate redundancy in our rules. Accordingly, today we adopt rules that consolidate the modification rules to determine major and minor modifications for BRS and EBS licenses under our ULS Part 1 modification rules. Consequently, at the end of the six month transition period to ULS, implementation of mandatory electronic filing will begin for BRS and EBS licensees.[392] MDS licensees currently submitting FCC Forms 304 or 331 to modify their licenses and EBS licensees currently submitting FCC Form 330 must begin using FCC Form 601 to report modifications to the Commission.[393]

4. Amendments to New and Modification Applications

197. *Background.* In the *NPRM* we sought comment on whether we should adopt the consolidated wireless procedures under Part 1 of the Commission's rules for amendments to

[389] *See* Coalition Comments at 134 – 137. The Coalition states that minor revisions to Section 1.929 are required to reflect the MBS Licensing Scheme. With the development of appropriate individual standards for determining whether MBS filings are "major" or "minor," Section 1.929 can readily be amended to consolidate the MDS and ITFS major and minor change and major and minor amendment rules. The common "major changes" standards set forth in Section 1.929(a) would seem to be appropriately applied to ITFS and MDS applications, whether for the LBS/UBS or the MBS. WCA states, however, that additional "major changes" must be defined for applications for the MBS channels, so as to assure that the FCC and potentially-affected MDS and ITFS licensees will have a fair opportunity to evaluate the possibility of interference from proposed modifications or from amendments to pending applications. More specifically, the Coalition Proposal suggests that the Commission define as "major" for the MBS any application, or an amendment to pending application, that proposes any of the following: (i) any change in frequency; (ii) any change in polarization; (iii) any increase in height of the C/R of the transmitting antenna by more than 8 meters (26 feet); (iv) any relocation of the station by more than 1.6 km (1 mile); (v) any change in the frequency offset of an analog station (however, an analog station upgrading from no frequency offset to any specific frequency offset (minus, zero or plus) would not be deemed a major change); (vi) any increase in occupied bandwidth; or (vii) any change to the transmission system that results in an increase in EIRP of more than 1.5 dB in any direction. *Id.*

[390] *See* discussion of geographic area licensing at Section IV.A.4, *supra.*

[391] *See* n.389, *supra.*

[392] Once our new BRS/EBS rules become effective, there will be a six-month transition period after which before electronic filing in ULS mandatory for these services. *See* discussion of transition period to ULS electronic filing at Section IV.D.17 , *infra.*

[393] *See* discussion of FCC Forms at paras. 254-258, *infra.*

applications.[394] Generally, pursuant to this consolidated approach for processing wireless applications, applicants may file amendments to pending applications as a matter of right if we have not designated the application for hearing or listed it in a competitive bidding public notice as accepted for filing.[395] Likewise, where an amendment to an application constitutes a "major change" as defined in Section 1.929, we treat the amendment as a new application for determination of filing date, public notice, and petition to deny purposes.[396] Furthermore, under the consolidated wireless approach, where an amendment to an application specifies a substantial change in beneficial ownership or control (de jure or de facto) of an applicant, the applicant must provide an exhibit with the amended application containing an affirmative, factual showing as set forth in Section 1.948(h)(2).[397]

198. Our consolidated wireless procedures for amendments to wireless applications differ in some respects from our current approach to amendments for MDS and ITFS applications.[398] For example, ITFS applicants currently may amend applications to cure defects noted in deficiency letters to the applicant. MDS BTA applicants currently may amend a long-form application up to the date the application has appeared on public notice as accepted for filing or by written petition demonstrating good cause if the application is already on public notice. MDS operators have recommended that we revise our rules to use the same definitions for major and minor amendments as for major and minor modifications.[399]

199. *Discussion.* After reviewing the limited comments we received on this issue, we conclude that we will adopt the consolidated wireless procedures, contained in Part 1 of the Commission's Rules, for amendments to BRS and EBS applications. Consequently, at the end of the transition period to mandatory electronic filing under ULS,[400] BRS and EBS licensees will use FCC Form 601 to amend their

[394] *See NPRM*, 18 FCC Rcd at 6786 ¶ 164.

[395] *See* 47 C.F.R. § 1.927.

[396] *See* 47 C.F.R. § 1.927(h).

[397] *See* 47 C.F.R. § 1.927(g).

[398] Our existing rules treat certain amendments as new applications that receive a new filing date as of the date the applicant submits the amendment. Amendments that we treat as new applications include applications submitted up to fourteen days after the application appeared as accepted on public notice that reflect any change in the technical specifications of the proposed facility; applications submitted with a new or modified analysis of potential interference to another facility; or applications submitted with an interference consent statement from a neighboring licensee. 47 C.F.R. § 21, 23. In such cases, the amended application must include an applicant certification that it has met all requirements regarding interference protection to existing and prior proposed facilities, and that it has obtained any necessary consent letters in lieu of interference protection. The applicant must also certify that it has served all potentially affected parties with copies of its amended application and engineering materials, and that the engineering analyses comply with the rules and methodology. *See* 47 C.F.R. §§ 21.23, 73.3522(a). Furthermore, ITFS applicants may amend applications to cure defects noted in deficiency letters to the applicant. *See* 47 C.F.R. § 73.3522(a). MDS BTA applicants may amend a long-form application up to the date the application has appeared on public notice as accepted for filing or by written petition demonstrating good cause if the application is already on public notice. *See* 47 C.F.R. § 21.926. In both services, applicants may not amend applications if the proposed amendment seeks more than a pro forma change of ownership or control.

[399] *See, e.g.,* IMLC Comments at iii, 8.

[400] At the adoption of this order a six-month transition period will begin after before requiring mandatory electronic filing by MDS and ITFS applicants and licensees in ULS. *See* discussion of transition period to ULS electronic filing at Section IV.D.17 *infra.*

applications.[401] This is yet another step in achieving a key policy objective in this rulemaking by simplifying the licensing process and deleting obsolete or unnecessary regulatory burdens.

5. Assignments of Authorization and Transfers of Control*:*

200. *Background.* In the *NPRM* we sought comment on proposing to revise our MDS and ITFS transaction requirements to conform to and merge with the ULS requirements in Section 1.948 of our rules.[402] Currently, our MDS licensees use FCC Form 305 to apply for voluntary and involuntary assignments, pro forma assignments, and FCC Form 306 to apply for voluntary transfers of control and pro forma transfers of control.[403] These licensees use FCC Form 304A to request a partial assignment.[404] However, the assignor must apply for deletion of the assigned facilities, indicating concurrence in an assignee's request.[405] The parties must consummate these transactions within forty-five days from the date of approval.[406] If the parties fail to consummate a partial assignment, the parties must submit FCC Form 304A to return the assignor's license to its original condition.[407] Before the Commission will consent to these transactions, the assignor/transferor must complete construction of the facility and file a certificate of completion of construction.[408]

201. Our current rules require the assignor/transferor to file the certificate of construction within one year from the initial license grant date, the consummation date of the transaction; or median date of the applicable commencement dates if the transaction involves a system of two or more stations. Our current rules also require an assignee/transferee to file FCC Form 430 License Qualification Report with the appropriate application form (Form 305 or Form 306) unless the assignee or transferee already has a current and substantially accurate report on file with the Commission. Finally, the parties of both transactions must notify the Commission of the date of consummation, by letter, within ten days of the date of consummation.

202. In contrast, ITFS licensees presently use Form 330 to request an assignment of license or a transfer of control.[409] With both types of transactions, ITFS licensees must file their applications at least

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[401] *See* discussion of FCC forms at paras. 254-258 *infra*.

[402] *See NPRM,* 18 FCC Rcd at 6789-90 ¶¶ 165-170; *see also* 47 C.F.R. § 1.948.

[403] *See* 47 C.F.R. § 21.11(d) (Assignment of License); 47 C.F.R. § 21.11(e) (Transfer of control of corporation holding a conditional license or license); 47 C.F.R. § 21.13 (General Application Requirements); 47 C.F.R. § 21.15 (Technical Content of Applications); 47 C.F.R. § 21.17 (Certification of Financial Qualifications); 47 C.F.R. § 21.19 (Waiver of Rules); 47 C.F.R. § 21.38 (Assignment or Transfer of Station Authorizations); 47 C.F.R. § 21.39 (Considerations Involving Transfer or Assignment Applications); 47 C.F.R. § 21.912 (Cable Television Eligibility Requirements and MDS/Cable Cross Ownership); 47 U.S.C. § 310 (Limitation on Holding and Transfer of Licenses (Alien Ownership Restriction).

[404] 47 C.F.R. § 21.11(e).

[405] *Id.*

[406] *Id.*

[407] *Id.*

[408] *See* 47 C.F.R. § 21.934. We note that exceptions exist if there is not a substantial change in ownership or control of the authorized facility from the transaction (assignment/transfer); involuntary transaction due to the licensee's bankruptcy, death, or legal disability; and if the transaction involves BTA authorizations. *See id.*

[409] *See* 47 C.F.R. §§ 74.910, 73.3500.

forty-five days before the contemplated effective date of the transaction.[410] However, in the case of an involuntary transaction, the Commission must be notified in writing, promptly after the death or legal disability of a licensee.[411] Additionally, an application for involuntary transaction must be filed within thirty days of such occurrence.[412]

203. Recognizing, however that there would be significant benefits to eliminating inconsistencies between similar services, the Commission developed FCC Form 603 to process assignment of license and transfer of control applications in ULS. Specifically, the Commission found that replacing service specific forms with consolidated forms would provide the public with a consistent set of procedures and filing requirements and would increase the speed and accuracy of the assignment and transfer process.[413]

204. In the *NPRM*, we sought comment on proposing to revise our MDS and ITFS transaction requirements to conform to and merge with the ULS requirements in Section 1.948 of our rules.[414] Specifically, we proposed to eliminate the prior consent requirement for non-substantial, pro forma assignments in MDS, and extend the consummation notice period to 180 days for both services.[415] With regard to involuntary assignments, we proposed to integrate the MDS rules into our ULS consolidated rules.[416] Additionally, we proposed to revise our channel exchange procedures[417] to conform to our assignment of license procedures.[418] For example, our rules currently require both the filing of a major modification application to change a frequency assignment[419] and each licensee seeking to exchange channels must file separate pro forma assignment applications.[420] We found that this channel exchange procedure places an undue burden upon licensees and the Commission's resources.[421] As a result, we proposed instead to require the licensees involved to treat channel exchanges like any other set of license transfers, i.e., to file two or more applications showing the transferor and transferee for each channel or set of channels being transferred.[422]

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[410] *See* 47 C.F.R. § 73.3540.

[411] *See* 47 C.F.R. § 73.3541.

[412] *Id*.

[413] *ULS R&O*, 13 FCC Rcd at 21079 ¶ 113.

[414] *See NPRM,* 18 FCC Rcd at 6789-91 ¶¶ 165-170.

[415] *See id.* at 6791 ¶ 169.

[416] *See id.*

[417] This procedure is burdensome in that it requires our engineers to generate and to enter a minor modification application into BLS for each channel that the parties seek to exchange. *See* 47 C.F.R. §§ 21.901(d), 74.902(f), 74.951(e).

[418] *See NPRM,* 18 FCC Rcd at 6791 ¶ 170.

[419] *See* 47 C.F.R. § 74.951(e).

[420] *See* 47 C.F.R. § 74.902; *see also* 47 C.F.R. § 21.901.

[421] The MDS and ITFS community has also asked that we make changes in this area. *See* Coalition Proposal at Appendix B n.49.

[422] *See NPRM,* 18 FCC Rcd at 6791 ¶ 170.

205. *Discussion.* We conclude that there are substantial benefits to revising our MDS and ITFS transaction requirements to conform to and merge with the ULS requirements in Section 1.948 of our rules for BRS/EBS licensees. AMLC and IMLC point out that many transactions cannot be consummated in the 45 days presently allowed.[423] The Rural Commenters believe the Section 21.38 requirement for prior Commission approval of pro forma assignments of license and transfers of control can be eliminated.[424]

206. We generally agree with these commenters and conclude that we will adopt our proposals regarding BRS and EBS transaction requirements as discussed above. Although there are some differences in the information requirements for transfers and assignments, we believe there is a sufficient degree of overlap in the information that both types of applicants supply that both BRS and EBS applicants can use the FCC Form 603 for transfers and assignments. Furthermore, the Commission designed Form 603 so that applicants only have to answer the questions pertinent to the type of transaction involved.[425] Consequently, at the end of the transition period to ULS implementation, BRS and EBS licensees will use FCC Form 603 and associated schedules to apply for consent to assignment of existing authorizations (including channel swaps), to apply for Commission consent to the transfer of control of entities holding authorizations, to notify the Commission of the consummation of assignments or transfers, and to request extensions of time for consummation of assignments or transfers.[426] Accordingly, we adopt transaction rules for BRS and EBS that conform to and merge with the ULS requirements in Section 1.948 of our rules. Streamlining the filing requirements for transaction requirements for BRS and EBS is another milestone in reaching the goal of simplifying the licensing process and deleting obsolete or unnecessary regulatory burdens.

6. Partitioning and Disaggregation

207. Background. In the *NPRM* we proposed allowing partitioning and disaggregation of spectrum for ITFS auction winners.[427] We noted that in other services where we have implemented geographic area licensing,[428] we have allowed licensees to partition their service areas and to disaggregate

[423] AHMLC Comments at 7; IMLC Comments at 10. We do note, however, that the ITFS Parties are fundamentally opposed to changing the eligibility standards for ITFS station licenses, either for parties applying for new licenses, or for parties seeking to acquire existing licenses. While the ITFS Parties support the Coalition Proposal, they also believe that allowing for-profit, commercial entities to become licensees would likely result in the ultimate destruction of the ITFS service as an educational asset. For this reason, the ITFS Parties also support the Joint Comments of CTN and NIA on this issue as well. *See* ITFS Parties Comments at 3-4.

[424] *See* Rural Commenters Comments at 6.

[425] *Id.*

[426] *See* 47 C.F.R. § 1.948; *see also* discussion of FCC forms at ¶¶ 254-258 *infra*.

[427] *See NPRM,* 18 FCC Rcd at 6791-92 ¶¶ 171, 172. Additionally, we also sought comment in the *NPRM* on factors other than geography or frequency that licensees might reasonably use when disaggregating their licenses. For example, the *Spectrum Policy Report* discusses the possibility that licensees might also be willing to sell off parts of their license rights on the basis of time slots and power levels. That report suggests that frequency-agile transceivers are already capable of sensing if a given channel is in use at a particular moment in time, by switching channels, reducing power, or remaining silent until a channel becomes available. *See Spectrum Policy Report* at 19.

[428] *See*, *e.g.*, 47 C.F.R. §§ 27.15, 101.535, 101.1111, 101.1323.

their spectrum.[429] For example, our current rules allow MDS BTA licensees to partition their spectrum.[430]

208. In the *NPRM*, we explained that if we allowed partitioning and disaggregation of geographic area licenses of current ITFS channels, licensees could file for partial assignment of a license, and licensees could apply to partition their licensed GSAs or disaggregate their licensed spectrum at any time following grant of their geographic area license.[431] We proposed that the area to be partitioned would be defined by the partitioner and partitionee. We also proposed that the partitionee or disaggregate would be authorized to hold its license for the remainder of the partitioner's or disaggregator's license term, and would be eligible for renewal expectancy on the same basis as other licensees. There would be no restriction on the amount of spectrum disaggregated and we would permit combined partitioning and disaggregation. Licensees that partition and disaggregate would be subject to provisions against unjust enrichment. We also proposed to eliminate any separate provisions relating to "channel swapping" and rely upon the ability of licensees to partition and disaggregate their spectrum.[432]

209. *Discussion.* After reviewing the comments, we conclude that partitioning and disaggregation should be permitted for both ITFS and MDS licensees. The Coalition and BellSouth support this proposal.[433] Similarly, Ericsson supports the proposal because it allows the market to devise spectrum configurations that meet the needs of industry. Ericsson further asserts that freely operating market forces would ensure the diversity of services offered to consumers, the adequacy of spectrum for flexible uses, and the ability of small business to provide niche services. In particular, Ericsson encourages the Commission to permit aggregation of rural and urban service areas, which would lead to service areas that permit nationwide coverage. Ericsson believes that aggregation of service areas is especially important for ensuring that development of AWS in this band is not hampered, especially in rural areas. Ericsson asserts that the ability to aggregate licenses or disaggregate service areas (i.e., to permit spectrum trading) would allow for a tailored service area without sacrificing less populated ones.[434] OWTC, believes the Commission should develop a minimal GSA and allow licensees to aggregate multiple service areas on a regional and/or a national basis. OWTC states that under this approach, smaller entities with local or regional business plans and little interest in providing large-area service would not be discriminated against.[435]

210. We agree with these commenters and believe the same logic applies to allowing partitioning and disaggregation for EBS licensees as presently applies to partitioning of MDS BTA spectrum under our current rules. Allowing partitioning and disaggregation of BRS/EBS licenses will provide flexibility to licensees, promote efficient spectrum use, and facilitate market entry by small businesses, educational, telemedicine or medical institutions, or other parties who may lack the financial resources for participation in BRS/EBS auctions. Accordingly, we permit partitioning and disaggregation

[429] "Partitioning" is the assignment of geographic portions of a license along geopolitical or other boundaries. "Disaggregation" is the assignment of discrete portions of "blocks" of spectrum licensed to a geographic area licensee or qualifying entity.

[430] 47 C.F.R. § 21.931.

[431] *See NPRM,* 18 FCC Rcd at 6791-2 ¶ 171.

[432] *See, e.g.*, 47 C.F.R. §§ 21.901, 74.902.

[433] *See* Coalition Proposal at 13; BellSouth Comments at 13-14 n.21.

[434] *See* Ericsson Comments at 6-7.

[435] *See* OWTC Comments at 4.

of licenses for all services in the band.

7. License Renewal

211. *Background.* In the *NPRM* we sought comment on our proposal to eliminate reinstatement procedures and adopt the late-filed renewal policy for wireless radio services for MDS and ITFS.[436] Additionally, we sought comment on whether we should impose any special requirements or limitations on the renewal of ITFS licenses.

212. Pursuant to the Commission's Rules, MDS licensees must file FCC Form 405 to renew their licenses thirty and sixty days before the expiration of such license. [437] If the renewal application is not timely filed, a licensee shall automatically forfeits its license without *Further Notice* to the licensee upon the expiration of the license period specified therein.[438] An MDS licensee may seek reinstatement of its licenses by filing a petition within 30 days of the license's expiration explaining the failure to timely file the required notification or application and setting out with specificity the procedures that the petitioner has established to ensure that such filings will be submitted on time in the future.[439] Generally, a license period is ten years. The terms of MDS station licenses granted on the basis of underlying BTA service area authorizations obtained by competitive bidding extend until the end of the ten-year BTA authorization.[440]

213. In contrast, ITFS licensees must file FCC Form 330-R to renew a license.[441] Unless otherwise directed by the FCC, ITFS licensees must file their renewal applications no later than the first day of the fourth full month prior to the expiration date of the license to be renewed.[442] The Commission will reinstate expired ITFS licensees if the former licensee files a timely petition with adequate justification.[443]

214. In further contrast, licensees in auctionable services file FCC Form 601 no later than the expiration date of the authorization for which renewal is sought, and no sooner than ninety days prior to expiration. The Commission designed ULS to provide wireless licensees with a pre-expiration notification approximately ninety days before their licenses expire and thereby avoid situations in which licensees allow their licenses to expire inadvertently and subsequently seek reinstatement.[444] We note that while we generally provide renewal notices to licensees, the pre-expiration notice is not a prerequisite to

[436] *See NPRM,* 18 FCC Rcd at 6792-93 ¶¶ 173-177.

[437] *See* 47 C.F.R. § 21.11(c).

[438] *See* 47 C.F.R. § 21.44(a)(2).

[439] *See* 47 C.F.R. § 21.43(b).

[440] *See* 47 C.F.R. § 21.929(b).

[441] *See* Wireless Telecommunications Bureau Suspends Electronic Filing for the Broadband Licensing System on October 11, 2002, *Public Notice*, 7 FCC Rcd 18365 (2002).

[442] *See* 47 C.F.R. § 73.3539.

[443] *See, e.g* Renewal Applications of Jonsson Communications Corp*.,* DA 02-3099, *Memorandum Opinion and Order*, 17 FCC Rcd 22697, 22698 (2002). There is no codified rule specifically addressing reinstatement of ITFS licenses.

[444] *ULS R&O*, 13 FCC Rcd at 21071 ¶ 96.

cancellation should a licensee fail to renew its license.

215. In 1999, the Commission adopted a new policy regarding treatment of late-filed renewal applications in the Wireless Radio Services.[445] Renewal applications that are filed up to thirty days after the expiration date of the license are granted nunc pro tunc if the application is otherwise sufficient under our Rules.[446] However, the licensee may be subject to an enforcement action for untimely filing and unauthorized operation during the time between the expiration of the license and the untimely renewal filing.[447] Applicants who file renewal applications more than thirty days after the license expiration date may also request renewal of the license nunc pro tunc, but such requests are not routinely granted, and are subject to stricter review, and may be accompanied by enforcement action, including more significant fines or forfeitures.[448] In determining whether to grant a late-filed renewal application, the Commission takes into consideration all of the facts and circumstances, including the length of the delay in filing, the reasons for the failure to timely file, the potential consequences to the public if the license should terminate, and the performance record of the licensee.[449] After the license expiration, the previous licensee may file a new application for use of those frequencies subject to any service specific rules. Once that thirty-day period has elapsed, or the prior holder of the license files a new application for that spectrum, the license then becomes available for the Commission to reassign by competitive bidding or other means according to the rules of the particular service.[450]

216. *Discussion.* After reviewing the comments we received on this issue, we conclude that we will adopt the late-filed renewal policy utilized for wireless radio services for the BRS/EBS band. The Commission's policy regarding treatment of late-filed renewal applications in the Wireless Radio Services is as follows: Renewal applications that are filed up to thirty days after the expiration date of the license will be granted nunc pro tunc[451] if the application is otherwise sufficient under our rules, but the licensee may be subject to an enforcement action for untimely filing and unauthorized operation during the time between the expiration of the license and the untimely renewal filing.[452] Applicants who file renewal applications more than thirty days after the license expiration date may also request that the license be renewed nunc pro tunc, but such requests will not be routinely granted, will be subject to stricter review, and also may be accompanied by enforcement action, including more significant fines or forfeitures.[453] In determining whether to grant a late-filed application, we take into consideration all of the facts and

[445] *See* Biennial Regulatory Review - Amendment of Parts 0, 1, 13, 22, 24, 26, 27, 80, 87, 90, 95, and 101 of the Commission's Rules to Facilitate Development and Use of the Universal Licensing System in the Wireless Telecommunications Service, WT Docket No. 98-20, *Memorandum Opinion and Order on Reconsideration*, 14 FCC Rcd 11476, 11485 ¶ 22 (1999) (*ULS MO&O*).

[446] *See id*. at 11485 ¶ 22.

[447] *Id*.

[448] *Id*.

[449] *Id*. at 11485-6 ¶ 22.

[450] *See* Rules and Regulations to Facilitate the Development and Use of the Universal Licensing System in the Wireless Telecommunications Service, 63 Fed. Reg. 68904, 68908 (1998).

[451] *Nunc pro tunc* is a phrase applied to acts allowed to be done after the time when they should be done, with a retroactive effect, *i.e.*, with the same effect as if regularly done.

[452] *See ULS MO&O*, 14 FCC Rcd at 11486 ¶ 22.

[453] *See id.*

circumstances, including the length of the delay in filing, the reasons for the failure to timely file, the potential consequences to the public if the license should terminate, and the performance record of the licensee.[454]

217. As an initial matter, the Commission has stated that each licensee is fully responsible for knowing the term of its license and for filing a timely renewal application.[455] Even when a licensee asserts that no renewal notification regarding the license expiration was received, this reason provides no basis for the relief requested, because a licensee's obligation to file a timely renewal is not dependent on the Commission sending a renewal notice.[456]

218. We have previously held that an inadvertent failure to renew a license in a timely manner is not so unique or unusual to warrant a waiver of the rules.[457] The Commission will grant a waiver if (a) it is in the public interest and the underlying purpose of the rule would be frustrated or not served by application to the present case, or (b) in view of unique or unusual factual circumstances, application of the rule would be inequitable, unduly burdensome, or contrary to the public interest, or the applicant has no reasonable alternative.[458] Even in the case of public safety licensees, the Commission has determined that a licensee will not be afforded special consideration when the licensee fails to file a timely renewal application simply because it engages in activities relating to public health or safety.[459]

219. Bell South supports the proposed new rules regarding license renewal policies.[460] The Coalition asserts that the Commission should apply this policy to MDS and ITFS on a prospective basis only, and note that until recently, the Commission has consistently applied a lenient standard to late-filed Part 74 renewals. The Coalition further asserts that the new renewal policy should not be applied retroactively to late-filed renewal applications for licenses that expire prior to the effective date of the new

[454] *See id.* at 11485 ¶ 22.

[455] *See ULS MO&O*, 14 FCC Rcd at 11485 ¶ 21. *See also* Sierra Pacific Power Company, *Order*, 16 FCC Rcd 188, 191 ¶ 6 (WTB PSPWD 2001) (holding that "each licensee bears the exclusive responsibility of filing a timely renewal application"); Alameda-Contra Costa Transit District Private Land Mobile Stations KBY746, WFS916, and KM8643, *Order*, 15 FCC Rcd 24547, 24551 ¶ 10 (WTB PSPWD 2000) (holding that "each licensee is responsible for knowing the expiration date of its licenses and submitting a renewal of license application in a timely manner"); World Learning, *Order*, 15 FCC Rcd 23871, 23872 ¶ 4 (WTB PSPWD 2000) (holding that licensee "is solely responsible for filing a timely renewal application"); First National Bank of Berryville, *Order*, 15 FCC Rcd 19693, 19696 ¶ 8 (WTB PSPWD 2000) (*Berryville*) (holding that "it is the responsibility of each licensee to renew its application prior to the expiration date of the license"); Montana Power Company, *Order*, 14 FCC Rcd 21114, 21115 ¶ 7 (WTB PSPWD 1999) (holding that "it is the responsibility of each licensee to apply to renew its license prior to the license's expiration date").

[456] *See Berryville*, 15 FCC Rcd at 19693 ¶ 8 (citing *ULS R&O*, 13 FCC Rcd 21027, (1998) (holding that a "licensee's obligation to timely file a renewal application is not dependent upon the Commission sending a renewal notice to the licensee, rather it is the responsibility of each licensee to renew its application prior to the expiration date of the license")).

[457] *See* Fresno City and County Housing Authorities, *Order on Reconsideration*, 15 FCC Rcd 10998 (WTB PSPWD 2000) (citing Plumas-Sierra Rural Electric Cooperative, *Order,* 15 FCC Rcd 5572, 5575 ¶ 9 (2000)).

[458] *See* 47 C.F.R. § 1.925(b)(3).

[459] *See* Amendment of Parts 1 and 90 of the Commission's Rules Concerning the Construction, Licensing and Operation of Private Land Mobile Radio Stations, *Report and Order*, 6 FCC Rcd 7297, 7301 ¶ 20 (1991).

[460] BellSouth Comments at 13-14 n.21.

rules.[461] OWTC supports the Commission's proposal to provide MDS licensees with a 90-day pre-expiration notice for renewal applications in order to avoid an inadvertent lapse of a license and the subsequent reinstatement effort. OWTC believes the pre-expiration notice is essential because the Commission proposes to eliminate the process of applying for reinstatement of the license if the expiration date passes without a proper renewal being filed.[462] Finally, Grand Wireless argues for a distinction between licensee/operators servicing the public and those who are not.[463]

220. We conclude that elimination of the reinstatement period will benefit all licensees in the band and other entities interested in acquiring abandoned spectrum.[464] Pursuant to the Commission's ULS procedures, failure to file for renewal of the license before the end of the license term results in automatic cancellation of the license.[465] We believe that eliminating reinstatement of expired licenses is prudent because ULS will send licensees a notification that their licenses are about to expire and, therefore, should be responsible for submitting timely renewal applications. Additionally, interactive electronic filing will make it easier for all licensees to timely file renewal applications. Moreover, we believe elimination of the reinstatement procedures will facilitate our ability to efficiently, and quickly perform our licensing responsibilities by reducing the amount of late-filed renewal applications that must be manually processed and by eliminating the processing of reinstatement applications. Accordingly, we eliminate our current reinstatement procedures and adopt the late-filed renewal policy for BRS and EBS on a prospective basis. We acknowledge that our previous handling of these matters was considerably lenient. We emphasize, however, that these new procedures will be strictly enforced, and licensees should take note accordingly.

8. Special Temporary Authority

221. *Background.* In the *NPRM*, we sought comment on our proposal to include MDS and ITFS special temporary authority (STA) requests under the same ULS regulatory regime as other Wireless Services.[466] Currently, for MDS, in circumstances requiring immediate or temporary use of facilities, entities may request special temporary authority to install and/or operate new or modified equipment.[467] Requests may be submitted as informal applications, at least ten days prior to the date of the proposed construction or operation (however, in practice an FCC Form 304 is attached to the informal request).[468] We may grant STAs without regard to the thirty-day public notice requirement in certain instances. First, we may grant an STA when the STA period is not to exceed thirty days and the filing of an application to change the STA into a permanent situation is not contemplated. Second, we may grant an STA when the STA period is not to exceed sixty days, pending the filing of an application to change the special situation into a regular operation. Third, we may grant an STA to permit interim operation to facilitate completion

[461] WCA Comments at 137-139.

[462] OWTC Comments at 6. As discussed in ¶ 214, *supra* , we note that while we generally provide renewal notices to licensees, the pre-expiration notice is not a prerequisite to cancellation should a licensee fail to renew its license.

[463] Grand Wireless Comments at 13.

[464] *ULS R&O,* 13 FCC Rcd at 21071 ¶ 96. The Commission excluded Commercial Radio Operators Licenses and Amateur licenses from this policy. *Id*.

[465] *Id*.

[466] *See NPRM,* 18 FCC Rcd at 6794-95 ¶¶ 178-180.

[467] *See* 47 C.F.R. § 21.25.

[468] 47 C.F.R. § 21.5.

of authorized construction or to provide substantially the same service as previously authorized. Fourth, we may grant an STA when there are extraordinary circumstances requiring operation in the public interest. We may grant STAs and extensions of STAs up to 180 days pursuant to Section 309(f) of the Communications Act[469] where extraordinary circumstances so require, but the licensee has a heavy burden to show it warrants such action. Finally, in times of national emergency or war, we may grant special temporary licenses (in place of construction permits, station licenses, modifications or renewals) for the period of the emergency.[470]

222. Under our existing rules, we may grant ITFS STAs in extraordinary circumstances requiring emergency operation to serve the public interest.[471] As in MDS, only an informal application is required. However, ITFS STA applicants must submit the request at least ten days before the date of the proposed operation. Pursuant to Section 309(f) of the Act,[472] We may grant ITFS STAs for a period not to exceed 180 days with a limited number of extensions also granted for up to 180 days.

223. *Discussion.* After reviewing the limited comments we received on this issue, we conclude that we will adopt our proposal to include BRS and EBS STA requests under the same ULS regulatory regime as other Wireless Services. Bell South supports the proposed new rules regarding special temporary authority and there were no commenters opposed to adopting this approach.[473] Under the streamlined consolidated ULS approach, applicants must file STA requests electronically on an FCC Form 601 within ten days before the date of the proposed operation (although we may grant requests received less than ten days prior to operation) for compelling reasons).[474] Furthermore, because MDS STA requests are informal applications, but in practice have an FCC Form 304 attached, adoption of the Form 601 for BRS and EBS STA requests as currently used in WTB makes good sense. Inasmuch as STAs are an emergency measure, mandatory electronic filing as now required in WTB, would provide BRS and EBS licensees with quick, responsive service.[475] Accordingly, for the foregoing reasons, we adopt rules that include BRS and EBS STA requests under the same ULS regulatory regime as the Wireless Services. This action furthers our goals of simplifying the licensing process and deleting obsolete or unnecessary regulatory burdens.

9. Ownership Information

224. *Background.* Currently MDS and ITFS licensees file FCC Form 430 to submit ownership information to the Commission. The Communications Act mandates the ownership information requested in Form 430.[476] The Form 430 requires the licensee to list its MDS and/or ITFS licenses or conditional licenses. Submission of ownership information enables the Commission to review whether applicants and licensees comply with our real-party-in-interest rules, eligibility for treatment as a small

[469] 47 U.S.C. § 309(f).

[470] *Id.*

[471] *See* 47 C.F.R. § 73.3542; *see also* 47 C.F.R. §§ 73.1635, 74.910.

[472] 47 U.S.C. § 309(f).

[473] BellSouth Comments at 13-14 n.21. We also note that SCETV is concerned about the loss of Special Temporary Authority (STA) in several key geographical locations. *See* SCETV Comments at 7.

[474] *See* 47 C.F.R. § 1.931; *see also* Section IV.D.16, *infra* (discussion of FCC Forms).

[475] *See* 47 C.F.R. § 1.931.

[476] *See* 47 U.S.C. § 310.

business at auction and foreign ownership restrictions.[477] In the *NPRM* we sought comment on whether MDS and/or ITFS licenses or conditional licenses should be required to submit ownership information on FCC Form 430. Noting that other wireless licensees use Form 602 to file ownership information electronically in ULS,[478] and that FCC Forms 602 and 430 request the same ownership information,[479] we proposed to require MDS and ITFS licensees to file Form 602, instead of Form 430, to submit ownership information.[480]

225. *Discussion.* After reviewing the limited comments we received on this issue, we conclude that we will adopt our proposal to require BRS and EBS licensees to file Form 602, in lieu of Form 430, to submit ownership information as is done by our other wireless licensees under our Part I ULS Rules. We received no comments opposed to our proposal. Bell South supports the proposed new rules regarding ownership information.[481] Currently, wireless licensees use Form 602 to file ownership information electronically in ULS.[482] FCC Form 602 and FCC Form 430 request the same ownership information.[483] We note that on June 14, 2002, the WTB stopped accepting electronically filed Forms 430 temporarily.[484] Therefore, during the transition period, BRS and EBS licensees may continue to file the Form 430 manually. We believe that requiring BRS and EBS licensees to file Form 602 is one more step in reducing the number of forms that BRS and EBS licensees have to deal with and will also bring these services under the same licensing requirements as our other wireless services. Accordingly, we adopt our proposal to require BRS and EBS licensees to file Form 602, in lieu of Form 430.[485]

10. Regulatory Status

226. *Background.* Consistent with our goal to maximize flexibility, we tentatively concluded

[477] *See ULS NPRM*, 13 FCC Rcd 9672, 9691 ¶ 43 (1998).

[478] ULS will pre-fill information that the licensee has previously submitted on a Form 602, enabling the licensee to limit new submissions to changed information, and ULS can also fill in certain parts of a Form 602 by reference to other previously filed information. For example, if Party A has previously submitted its own ownership filing and is subsequently listed as a disclosable interest holder on the ownership filing of another licensee (Party B), Party A's FCC-regulated businesses may be automatically copied to Party B's filing. Wireless Telecommunications Bureau Announces Availability of Electronic Filing of FCC Form 602, *Public Notice*, 17 FCC Rcd 16779 (2002).

[479] *See* Wireless Telecommunications Bureau Answers Frequently Asked Questions Concerning Reporting of Ownership Information on FCC Form 602, DA 99-1001, *Public Notice,*14 FCC Rcd 8261 (May 25, 1999) (*WTB Frequently Asked Questions*).

[480] *See NPRM,* 18 FCC Rcd at 6795-96 ¶ 181.

[481] *See* BellSouth Comments at 13-14 n.21.

[482] ULS will pre-fill information that the licensee has previously submitted on a Form 602, enabling the licensee to limit new submissions to changed information, and ULS can also fill in certain parts of a Form 602 by reference to other previously filed information. For example, if Party A has previously submitted its own ownership filing and is subsequently listed as a disclosable interest holder on the ownership filing of another licensee (Party B), Party A's FCC-regulated businesses may be automatically copied to Party B's filing. Wireless Telecommunications Bureau Announces Availability of Electronic Filing of FCC Form 602, *Public Notice*, 17 FCC Rcd 16779 (2002).

[483] *See WTB Frequently Asked Questions, supra,* n.479.

[484] Wireless Telecommunications Bureau to Temporarily Suspend Electronic Filing of FCC Form 430 via the Broadband Licensing System, *Public Notice,* 17 FCC Rcd 11131 (2002).

[485] *See infra* ¶¶ 252-256 (discussion of FCC Forms).

in the *NPRM* that MDS and ITFS applicants may request more than one regulatory status for authorization in a single license.[486] Under this approach, MDS and ITFS applicants could authorize a combination of common carrier and non-common carrier services in a single license and licensees in the band could render any kind of communications service (e.g., fixed, mobile, point-to-multi-point) consistent with that regulatory status and the existing rules. This proposal is consistent with the approach we have used for other services licensed on a geographic area basis.[487] Applicants would not be required to describe the services they seek to provide but would be required to designate the regulatory status of services they intend to provide using Form 601.[488] We sought comment on what procedures to adopt for licensees to change their regulatory status (i.e., notify the Commission within a certain timeframe or seek prior approval).[489]

227. *Discussion.* We conclude that we will permit BRS and EBS applicants to request more than one regulatory status for authorization in a single license. We also conclude that BRS and EBS applicants must follow the notification procedures set forth in Section 27.10(c) of the Commission's Rules.[490] Bell South supports our proposal.[491] Similarly, EarthLink supports discarding the Commission's broadcast-style regulatory model for MDS and ITFS and urges Commission reliance instead on a Part 27-like regulatory scheme for the LBS and UBS.[492] Likewise, the Coalition agrees, and in response to the *NPRM's* inquiry regarding the appropriate procedures for an MDS or ITFS licensee to change its regulatory status, the Coalition submits that Section 27.10(c) should serve as the model.[493] CTIA contends the MDS and ITFS Bands should be configured to optimize their usability for CMRS services.[494] Likewise, AHMLC and IMLC observe that under the new flexible use rules proposed in the *NPRM* for the MDS and ITFS bands, licensees could conceivably use the spectrum that falls within the statutory definition of a commercial mobile radio service.[495] We agree with AHMLC and IMLC that to the extent MDS and ITFS licensees elect common carrier status, they should be exempt from tariff obligations under Title II of the Communications Act.[496]

228. Accordingly, licensees in the band will be permitted to request more than one regulatory status for authorization in a single license pursuant to the notification procedures set forth in Section

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[486] *See NPRM,* 18 FCC Rcd at 6796 ¶ 182.

[487] *See e.g.,* 47 C.F.R. §§ 27.10, 101.511, 101.133.

[488] *See ULS R &O*, 13 FCC Rcd at 21027 Appendix C.

[489] *See NPRM,* 18 FCC Rcd at 6796 ¶ 182.

[490] Section 27.10(c)(2) of the Commission's Rules provides that [a]mendments to change, or add to, the carrier regulatory status in a pending application are minor amendments filed under § 1.927 of this chapter." 47 C.F.R. § 27.10(c)(2). *See* Section IV.D.3, *supra* (discussion of major and minor amendments).

[491] *See* BellSouth Comments at 13-14 n.21.

[492] *See* EarthLink Comments at 7. We note that we plan on relying on a Part 27 type regulatory scheme for the MBS, as well as the LBS and UBS. *See* Section IV.A.4, *supra* (discussion of geographic area licensing).

[493] *See* Coalition Comments at 142.

[494] *See* CTIA Comments at 3.

[495] *See* AHMLC Comments at 8, 24; IMLC Comments at 11.

[496] *See* Implementation of Sections 3(N) and 332 of the Communications Act Regulatory Treatment of Mobile Services, GN Docket 93-252, *Second Report and Order*, 9 FCC Rcd 1411, 1418; *see also* 47 CFR § 20.15 (2003).

27.10(c) of the Commission's Rules.[497] Allowing licensees in BRS and EBS to choose from among several regulatory status categories furthers our policy goals of: promoting innovation by maximizing flexibility in the service rules, and simplifying the licensing process and deleting obsolete or unnecessary regulatory burdens.

11. Discontinuance, Reduction or Impairment of Service

229. *Background.* In the *NPRM*,[498] we sought comment on consolidating forfeitures, cancellation and discontinuance of service rules for MDS and ITFS licensees. These service rules are currently contained in five separate rule sections for MDS licensees, and three separate rule sections for ITFS licensees.[499] Because a system can have both ITFS and MDS channels, we believe that consolidating these rules will be advantageous to both the industry and the Commission staff. Thus, we tentatively concluded in the *NPRM* that consolidating these rules would reduce the confusion of the industry as to the appropriate rules and increase the efficiency of the Commission staff in processing these actions.

230. The Commission implemented its license forfeiture rules to ensure station operation and alleviate concerns about spectrum warehousing.[500] We note that presently MDS licensees may alternate between providing service as a common carrier or a non-common carrier.[501] However, before alternating, the licensee must notify the Commission of the change at least thirty days before the change.[502] Additionally, common carriers who seek to alternate or who otherwise intend to reduce or impair service must notify all affected customers of the planned discontinuance, reduction, or impairment on or before providing notice to the Commission.[503] These provisions concerning licensees alternating between common carrier and non-common carrier status are in our Part 27 Rules, which we have concluded will contain the BRS and EBS rules henceforth.[504]

231. *Discussion.* After reviewing the comments and taking into consideration the fundamental restructuring of the BRS and EBS bands, we conclude that we will eliminate our forfeiture, cancellation and discontinuance of service rules for certain licensees.[505] We note, however, that BRS and EBS Licensees that choose to act as fixed common carriers or fixed carriers will be subject to Section 27.66 of

[497] *See* 47 C.F.R. § 27.10(c).

[498] *See NPRM,* 18 FCC Rcd at 6798 ¶¶ 186 -188.

[499] *See* 47 C.F.R. §§ 21.44, 21.303, 21.910, 21.932, 21.936, 73.3534, 73.3598, 74.932.

[500] *See* Reorganization and Revision of Parts 1, 2, 21, and 94 of the Rules to Establish a New Part 101 Governing Terrestrial Microwave Fixed Radio Services, WT Docket No. 94-148, *Report and Order*, 11 FCC Rcd 13,449, 13,465 (1996).

[501] *See* 47 C.F.R. §§ 21.903(d), 21.910.

[502] *See* 47 C.F.R. § 21.903(d), which provides that the notification must state whether there is any affiliation or relationship to any intended or likely subscriber or program originator.

[503] *See* 47 C.F.R. § 21.910, which provides that the notice shall be in writing and shall include the name and address of the carrier, the date of the event, the area(s) affected and the channels that are affected by the event. *Id*. at § 21.910(b).

[504] *See* Section IV.D.2, *supra* (discussion of service specific rules).

[505] We note, however, that our cancellation and forfeiture rules will remain in effect for instances where there is a failure to make installment payments.

the Commission's Rules.[506]

232. We believe that eliminating our forfeiture, cancellation and discontinuance of service rules for certain licensees provides both existing EBS and BRS licensees and potential new entrants with greatly enhanced flexibility in order to encourage the highest and best use of spectrum to provide for the rapid deployment of innovative and efficient communications technologies and services.[507] By these actions, we make significant progress towards the goal of providing all Americans with access to ubiquitous wireless broadband connections, regardless of their location.[508]

233. As part of the fundamental changes to the BRS and EBS band, we seek to encourage BRS and EBS licensees to respond to market demands for next generation ubiquitous broadband wireless services and make investments in the future of such services. We believe this goal cannot be readily accomplished if BRS and EBS licensees have to focus their resources on preserving legacy services solely because renewal approaches and licensees fear losing their authorizations if the discontinuance of service and forfeiture rules are not eliminated. Furthermore, the move to next generation services for BRS and EBS providers also entails a transition period where licensees will be forced to go dark and discontinue service during the actual transition.[509] Accordingly, we conclude that it would be inappropriate to penalize BRS and EBS licensees while they migrate to the new band plan.

234. Finally, we also note that as part of the fundamental restructuring of the BRS and EBS band to provide for a more flexible, market-based approach, we are replacing the existing site-based licensing scheme for the BRS and EBS with geographic area licensing for these services.[510] This is consistent with Commission actions over the past decade shifting away from site-based licensing for wireless licensees toward more flexible, geographic-area based allocations that provide licensees with greater freedom to provide different types of services. In making this shift, the Commission has adopted performance benchmarks that increase licensees' flexibility to offer a variety of services, including service that may not require ubiquitous geographic coverage. In a related matter, we believe that adopting specific

[506] Section 27.66, 47 C.F.R. § 27.66, of the Commission's Rules provides in pertinent part:

§ 27.66 Discontinuance, reduction, or impairment of service.
(a) Involuntary act. If the service provided by a fixed common carrier licensee, or a fixed common carrier operating on spectrum licensed to a Guard Band Manager, is involuntarily discontinued, reduced, or impaired for a period exceeding 48 hours, the licensee must promptly notify the Commission, in writing, as to the reasons for discontinuance, reduction, or impairment of service, including a statement when normal service is to be resumed. When normal service is resumed, the licensee must promptly notify the Commission.
(b) Voluntary act by common carrier. If a fixed common carrier licensee, or a fixed common carrier operating on spectrum licensed to a Guard Band Manager, voluntarily discontinues, reduces, or impairs service to a community or part of a community, it must obtain prior authorization as provided under § 63.71 of this chapter. An application will be granted within 31 days after filing if no objections have been received.
(c) Voluntary act by non-common carrier. If a fixed non-common carrier licensee, or a fixed non-common carrier operating on spectrum licensed to a Guard Band Manager, voluntarily discontinues, reduces, or impairs service to a community or part of a community, it must give written notice to the Commission within seven days.

[507] Federal Communications Commission, Strategic Plan FY 2003-FY 2008 at 5 (2002) (*Strategic Plan)*.

[508] *Id.* at 14.

[509] See discussion of transition at Section IV.A.5, *supra*.

[510] See discussion of geographic area licensing at IV.A.4, *supra*.

safe harbors and performance requirements for the BRS and EBS bands will ensure service to customers, while at the same time speeding the provision of next generation wireless broadband services. Consequently, in the F*NPRM* portion of this document, we seek comment on what performance requirements and safe harbors to adopt for the BRS and EBS services.[511]

235. The Coalition argues that consistent with other Part 27 flexible use services, the Commission should eliminate the existing MDS and ITFS rules subjecting licenses to cancellation if spectrum is not used for brief periods of time or if licensed facilities are temporarily dismantled.[512] Specifically, the Coalition explains that some licensees will be required to cease their current operations pursuant to the transitional process it proposes.[513] The Coalition further asserts that many licensees retain a strong interest in discontinuing the provision of wireless cable services or first generation broadband service so that they can migrate to second generation broadband services once the Commission revises its rules and such action should be encouraged. The Coalition states that there is no public interest benefit to preserving non-viable services solely because renewal approaches. Nonetheless, the Coalition asserts, this will be the end result if we take a snapshot approach pursuant to our rules.[514] We concur with the Coalition.

236. Bell South supports the proposed new rules regarding discontinuance, reduction or impairment of service.[515] Sprint argues the discontinuance provisions set forth at Section 21.303 of the Commission's rules should be deleted or modified to account for the technology and spectrum transitions contemplated by this proceeding. Sprint further asserts the market-driven service goals of the Commission will be thwarted if licensees are effectively forced to continue the provision of obsolete services merely to preserve their authorizations.[516] Similarly, Nextel agrees that these discontinuance rules should be eliminated.[517]

237. AHMLC and IMLC argue the Commission should simply abolish Section 21.303,[518] which requires licensees to offer service to customers at least once a year. AHMLC and IMLC note that a licensee wanting to deploy an advanced system under the rules now under consideration would nonetheless have to continue providing service to at least some legacy subscribers or risk forfeiture under Section 21.303. Therefore, AHMLC and IMLC assert that it makes no sense to compel the provision of uneconomical and inefficient service to simply meet Commission rules.[519] We agree with AHMLC and IMLC.

238. Grand Wireless argues providing service to the public should be the primary consideration that allows for preservation of licenses and spectrum. Grand Wireless and Pace further

[511] See discussion of substantial service and performance requirements at Section V.B, *infra*.

[512] *See* Coalition Comments at 84, 92-93. *See also Co*alition Proposal, Appendix B at n.9.

[513] *See* Coalition Comments at 84, 92-93. *See also Co*alition Proposal, Appendix B at n.9.

[514] *See* Coalition Comments at 84, 92-93. *See also Co*alition Proposal, Appendix B at n.9.

[515] *See* BellSouth Comments at 13-14 n.21.

[516] *See* Sprint Comments at 18.

[517] *See* Nextel Reply Comments at 16.

[518] *See* 47 C.F.R. § 21.303.

[519] AHMLC Comments at 22; IMLC Comments at 22.

assert that different geographical service areas will grow at different rates with additional channels put into service as the operation warrants. They note that the transition to advanced wireless services whose offerings are still in their infancy will result in a staggered usage of spectrum over time particularly in rural areas. Thus Grand Wireless and Pace state that as time goes by, additional channels will be placed into service as demand grows, and the speed with which additional channels are placed into service depends in large part on the service area with rural areas being slower than urban areas.[520] We agree that this is yet another reason to eliminate our forfeitures, cancellation and discontinuance of service rules for BRS and EBS licensees.

239. In sum, we conclude that our decision to eliminate our forfeiture, cancellation and discontinuance of service rules for certain classes of BRS and EBS licensees is supported by comments in the record, as well by consideration for the fact that BRS and EBS licensees will be transitioning to new innovative next-generation technologies, and may be forced to go dark during transition. Our market-driven service goals will not be reached if licensees are forced to continue providing obsolete services solely to preserve their authorizations. We see no public interest benefit to preserving non-viable services solely because renewal approaches. We believe that eliminating these rules allows for innovative, flexible use of the spectrum.

12. Foreign Ownership Restrictions

240. *Background.* In the *NPRM* we sought comment on establishing regulatory parity for applicants requesting authorization solely for non-common carrier services and applicants requesting authorization for common carrier services.[521] We note that Sections 310(a) and 310(b) of the Communications Act, as modified, impose foreign ownership and citizenship requirements that restrict the issuance of licenses to certain applicants.[522] An applicant requesting authorization only for non-common carrier services would be subject to Section 310(a), but not to the additional prohibitions of section 310(b). In contrast, an applicant requesting authorization for common carrier services would be subject to both Sections 310(a) and 310(b). By establishing parity in reporting obligations, however, we did not propose a single, substantive standard for compliance.[523]

241. *Discussion.* We conclude that common carriers and non-common carriers seeking to operate in BRS and EBS should not be subject to varied reporting obligations.[524] Consistent with our

[520] Grand Wireless Comments at 13; Pace Comments at 8.

[521] *See NPRM,* 18 FCC Rcd at 6796 ¶ 189. We are aware that in the *NPRM* we sought comment on implementing this requirement pursuant to Part 101 of the Commission's Rules; however, as noted in ¶¶ 184-190 *supra*, we have decided to regulate the MDS and ITFS pursuant to Part 27 of the Commission's Rules.

[522] 47 U.S.C. § 310(a), (b).

[523] For example, we do not and would not deny a license to an applicant requesting authorization exclusively to provide services not enumerated in Section 310(b), solely because its foreign ownership would disqualify it from receiving a license if the applicant had applied for a license to provide the services enumerated in Section 310(b).

[524] As was observed in the *LMDS 2d R&O*, requiring submission of ownership information that may not be immediately necessary to assess the qualifications of a licensee (*i.e.,* one who currently operates as a non-common carrier) is an efficient and reasonable measure to facilitate the flexibility accorded licensees to change status with a minimum of regulatory interference. With this approach, updated information can be used whenever the licensee changes to common carrier status without imposing an additional filing requirement when the licensee makes the change. Moreover, having access to this ownership information allows the Commission to monitor all of the licensed providers more effectively, in light of their ability to provide both common and non-common carrier (continued….)

determination to regulate services in the band pursuant to Part 27 of the Commission's Rules, we agree with the Coalition that Sections 27.12, 1.913, and 1.919 of the Commission's Rules should be utilized to implement this policy.[525] Accordingly, we adopt rules for applicants requesting authorization for either common carrier or non-common carrier status to file changes in foreign ownership information pursuant to those sections.[526] This action furthers our goal of fostering regulatory parity and transparency between like services. We also believe this is yet another step in simplifying the licensing process and deleting obsolete or unnecessary regulatory burdens.

13. Annual Reports

242. *Background.* The Commission's rules require MDS operators to file annual reports even if they are in full compliance with all of our rules.[527] Inasmuch as these rules appear to be unnecessary, in the *NPRM*, we sought comment on eliminating these requirements.[528]

243. *Discussion.* After reviewing the comments we received on this issue, we conclude that we will eliminate the requirement that BRS operators file annual reports with the Commission. BellSouth, AHMLC and IMLC support the planned elimination of the Section 21.911 Report.[529] Similarly, the Rural Commenters believe that the Section 21.911 Annual Report can be eliminated at no loss to the effectiveness of the Commission's mission.[530] Likewise, the Coalition agrees that the Commission has correctly concluded that "these reports do not appear to serve any purpose."[531] IMLC states the annual filing of this report no longer serves a useful purpose and notes that as MDS and ITFS usage moves into a digital mode, it will become difficult, if not impossible, to report what content is being transmitted over "channels" of fluctuating definition. Additionally, IMLC believes there is no need for an additional EEO Report required by Section 21.920 of the Commission's rules,[532] and this report should either be eliminated or made a question on the annual EEO outreach reporting form due on September 30 of each year.[533] Consistent with our tentative conclusion in the *NPRM* to eliminate annual reports,[534] as well as our determination today to place the BRS and EBS in Part 27 of our rules, we eliminate the EEO annual report.

(Continued from previous page)

services. We stress that our decision to regulate MDS and ITFS pursuant to Part 27 rather than pursuant to Part 101, which regulates LMDS, does not make this line of reasoning inapplicable. Rulemaking to Amend Parts 1, 2, 21, and 25 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band, to Reallocate the 29.5-30.0 GHz Frequency Band, To Establish Rules and Policies for Local Multipoint Distribution Service and For Fixed Satellite Services, CC Docket No. 92-297, *Second Report and Order, Order on Reconsideration, and Fifth Notice of Proposed Rulemaking,* 12 FCC Rcd 12545 (1997) (*LMDS 2d R&O*).

[525] *See* 47 C.F.R. §§ 27.12, 1.913, 1.919. *See also* Coalition Comments at 142.

[526] *See* 47 C.F.R. §§ 27.12, 1.913, 1.919.

[527] *See* 47 C.F.R. § 21.911.

[528] *See NPRM,* 18 FCC Rcd at 6806 ¶ 203.

[529] *See* AHMLC Comments at 6; IMLC Comments at 9-10; *See* BellSouth Comments at 13-14 n.21.

[530] *See* Rural Commenters Comments at 6.

[531] *See* Coalition Comments at 142.

[532] *See* 47 C.F.R. § 21.920.

[533] *See* IMLC Comments at 10. AHMLC, however, supports retaining the EEO Report required by Section 21.903 of our rules. *See* AHMLC Comments at 7.

[534] *See NPRM*, 18 FCC Rcd at 6806 ¶ 203.

Accordingly, we eliminate the requirement that BRS operators file annual reports with the Commission. Doing so simplifies the licensing process and deletes obsolete or unnecessary regulatory burdens.

14. Application Processing

244. *Background.* In the *NPRM* we sought comment on streamlining our application procedures. We tentatively concluded that the interactive nature of ULS will enhance the on-line capabilities of MDS and ITFS users, and therefore proposed to integrate the Services into ULS. [535] Currently, our MDS and ITFS application processing is cumbersome, time-consuming, and resource intensive. As noted above,[536] we are adopting rules herein that replace the requirement to separately license individual transmitters with a geographic area licensing scheme in which most operations would be authorized pursuant to the geographic area license. This change will substantially reduce burdens on licensees, expedite the initiation of service, and provide greater flexibility. Nonetheless, we note that there will continue to be limited instances in which transmitters will have to be licensed individually. Thus, we believe it is appropriate to review and streamline our application procedures.

245. With respect to the processing of ITFS applications, our rules currently require several burdensome steps that result in delays to the public and hinder the efficient processing of ITFS applications.[537] Although our MDS application processing procedures appear quicker then the ITFS procedures, we believe MDS application filing procedures should also be stream-lined and consolidated.[538]

246. Previously, applicants could file and view their applications on-line using the Broadband Licensing System (BLS).[539] On October 11, 2002, the Wireless Bureau suspended the electronic filing

[535] *See NPRM*, 18 FCC Rcd at 6806-8 ¶¶ 204-211.

[536] *See* Section *IV.A.4.a supra* (discussion of geographic licensing).

[537] With respect to the processing of ITFS, our existing rules require the opening of a filing window before we will accept applications. *See* 47 C.F.R. § 74.911(c)(1) and (d). Then we must announce a one-week filing period for applications for major changes, high-power signal booster station, response station hub and R channels point-to-multipoint transmissions licenses. At the conclusion of the one-week filing period, we announce the tendering for filing of applications submitted during the filing window and provide a sixty-day filing window for applicants to amend their applications. *See* 47 C.F.R. § 74.911(d). At the conclusion of the sixty-day filing window, we announce the acceptance for filing of all applications submitted during the initial window, as amended by the applicants. Opposing parties receive sixty days from the release of the public notice announcing the acceptance for filing of the applications to file a petition to deny against an application. *See* 47 C.F.R. § 74.911(d). On the sixty-first day, we grant the unopposed applications unless we notified the applicant that we were not granting the application.

[538] Generally, upon receipt of an MDS application, we give the application a file number. *See* 47 C.F.R. § 21.26. After preliminary review, we place those applications that appeared complete on public notice as accepted for filing. *See id*. However, with regard to MDS two-way application filings, we currently use a rolling one-day filing window. *See* Amendment of Parts 21 and 74 to Enable Multipoint Distribution Service and Instructional Television Fixed Service Licensees to Engage in Fixed Two-Way Transmissions, MM Docket No. 97-217, *Report and Order*, 13 FCC Rcd 19112, 19150 (1998); 47 C.F.R. § 21.27(d). We announce the "tendering for filing" of applications submitted during the filing window. *See* Commission Announces Initial Filing Window for Two-Way Multipoint Distribution Service and Instructional Television Fixed Service, *Public Notice,* 15 FCC Rcd 5850 (MMB 2000). Then, after a sixty-day period, we released a second public notice announcing those applications that we accepted for filing.[538] *See* 47 C.F.R. § 21.27(d).

[539] Mass Media Bureau Implements, *Public Notice*, 2000 WL 684792 (2000) (*BLS Implementation PN*).

capabilities of the BLS in order to improve the integrity of data in the BLS, prepare for converting the ITFS and MDS services to the ULS, and facilitate future enhancements to electronic filing.[540]

247. *Discussion.* We did not receive any comments opposing streamlining our ITFS and MDS application procedures. Thus, we conclude that conversion of the data from BLS to ULS will improve the efficiency of filing applications, as well as searching for data on these services. In this vein, we note that we require the majority of the wireless applicants to file their applications electronically using ULS. ULS has eliminated the need for wireless carriers to file duplicative applications and has increased the accuracy and reliability of licensing information for wireless services. Additionally, ULS has increased the speed and efficiency of the application process because wireless licensees and applicants can file all licensing-related applications and other filings electronically. Since the implementation of ULS, the public may access all publicly available wireless licensing information on-line.[541]

248. We conclude that the interactive nature of ULS will streamline the BRS and EBS licensing process,[542] as well as reduce the present lengthy licensing process. For instance, generally, upon filing of an application in ULS we place the application on public notice as accepted for filing.[543] The extra step of allowing applicants to amend their applications to make corrections is not necessary with ULS.

249. By consolidating the BRS and EBS application processing procedural rules in Part 1 of the Commission's Rules, we improve the consistency of the Commission's rules across wireless services and provide a single point of reference for applicants, licensees, and the public seeking information regarding our licensing procedures. We conclude this consolidation will reduce confusion among applicants or licensees, increase the probability that filings will be done correctly, accelerate the application process, and speed wireless service to the public. Accordingly, we adopt rules that streamline our application procedures for BRS and EBS by integrating the Services into ULS.[544]

15. Returns and Dismissals of Incomplete or Defective Applications

250. *Background.* In the *NPRM*, we proposed to extend our uniform rule for dismissal or return of defective applications in the Wireless Services to ITFS and MDS applications and adopt the

[540] Wireless Telecommunications Bureau Suspends Electronic Filing for the Broadband Licensing System on October 11, 2002, *Public Notice*, 17 FCC Rcd 18365 (2002). We note that effective March 25, 2002, the Commission transferred the regulatory functions for the Services from the former Mass Media Bureau to the Wireless Telecommunications Bureau. Radio Services are Transferred from Mass Media Bureau to Wireless Telecommunications Bureau, *Public Notice*, 17 FCC Rcd 5077 (2002).

[541] *ULS R&O*, 13 FCC Rcd at 21031 ¶ 4.

[542] Because ULS is interactive, ULS prompts the applicant to input the required information for the type of action that the applicant seeks. As a result, applicants must submit all the appropriate information before they may file their applications electronically in ULS. *See* Phase I Mandatory Electronic Filing Deadline Extended for PCIA and ITA, *Public Notice,* 16 FCC Rcd 13,681 (2001) (the Commission extended the deadline for mandatory electronic filing to July 25, 2001). Notably, ULS will automatically "pre-fill" licensee information already in the system and will display only the portions of the form and schedules that require completion for the applicant's or licensee's indicated purpose.

[543] *See* 47 C.F.R. § 1.933(1).

[544] In most instances, applicants will not be required to file applications in order to relocate or add transmitters within their GSA. *See* discussion on Geographic Area Licensing, Section IV.A.4, *supra*.

Wireless Bureau's procedures for complying with the Commission's uniform policy.[545] As noted above,[546] in some instances ITFS and MDS applicants submitted applications that were incomplete or required the submission of additional information before they could be placed on public notice as accepted for filing, which resulted in inefficient processing of applications.

251. The Commission in the *ULS Report and Order* adopted a uniform application dismissal and return rule for all the Wireless Services.[547] Pursuant to the uniform rule articulated therein, the Commission has the discretion to return applications for correction on minor filing errors, but is also authorized to dismiss any incomplete or defective application without prejudice.[548] In this connection, regardless of the manner in which applicants submit their applications, ULS will automatically dismiss applications that are unsigned, untimely, or not fee-compliant.[549] The Commission explained in the ULS *R&O* that in contrast to minor filing errors, such defects were "fatal to the consideration of the application."[550]

252. WTB, however, has announced specific procedures for complying with the Commission's uniform policy.[551] WTB has concluded that, "[g]enerally, timely filed renewal applications and construction notifications that are otherwise defective will be returned to the applicants for correction, rather than dismissed by the Bureau."[552] Nonetheless, the Bureau clarified "that renewal applications and construction notifications that fail to comply with the applicable fee and signature requirements will be dismissed by the Bureau as defective, rather than returned to the applicants for correction, even if timely filed."[553]

253. *Discussion.* We received no comments opposing our proposal. Accordingly, we adopt the Commission's uniform rule for dismissal or return of defective applications in the Wireless Services to EBS and BRS applications along with the Bureau's procedures for complying with the Commission's uniform policy. These steps will ensure efficient processing and equal treatment of all applications, while simplifying the licensing process and deleting obsolete or unnecessary regulatory burdens.

16. ULS Forms

[545] *See NPRM,* 18 FCC Rcd at 6808-9 ¶¶ 212-215.

[546] *See* ¶ 245, *supra*.

[547] *See ULS R&O*, 13 FCC Rcd at 21027; *See also* 47 C.F.R. § 1.934.

[548] *ULS R&O*, 13 FCC Rcd at 21068 ¶ 90.

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

[550] *Id*.

[551] *See* Wireless Telecommunications Bureau Clarifies Unified Policy for Dismissing and Returning Applications, *Public Notice*, 17 FCC Rcd 30 (WTB 2001) (*Unified Dismissal and Return PN*); Wireless Telecommunications Bureau Revises and Begins Phased Implementation of its Unified Policy for Reviewing License Applications and Pleadings, *Public Notice*, 14 FCC Rcd 11182, 11185 (WTB 1999); Wireless Telecommunications Bureau Announces Unified Policy for Dismissing and Returning Applications and Dismissing Pleadings Associated with Applications, *Public Notice*, 14 FCC Rcd 5499 (WTB 1999).

[552] *Unified Dismissal and Return PN*, 17 FCC Rcd at 30.

[553] *Id*. at 32.

254. *Background.* In the *NPRM*,[554] we noted that currently our rules require MDS and ITFS applicants to use eleven different forms to request licensing actions.[555] We tentatively concluded that we would streamline these procedures by replacing the eleven forms that MDS and ITFS applicants presently use with the four forms that we use to license other wireless services in ULS and sought comment on this proposal. The Commission consolidated the ULS application forms for wireless services to replace approximately forty-one application forms.[556] The consolidation streamlined the processing of applications and reduced the filing burden for wireless applicants and licensees.[557] We use four forms in ULS – Form 601 (Long-Form or FCC Application for Wireless Telecommunications Bureau Radio Service Authorization), Form 602 (FCC Ownership Disclosure Information for the Wireless Telecommunications Bureau), Form 603 (FCC Wireless Telecommunications Bureau Application for Assignment of Authorization or Transfer of Control) and Form 605 (Quick-Form Applications for Authorization in the Ship, Aircraft, Amateur, Restricted and Commercial Operator, and General Mobile Radio Services.[558]

255. *FCC Form 601.* Under our proposal, this form will replace FCC Forms 304, 304A, 330, 330A, 330R, 331, 405, 701 and most informal application filings. The FCC Form 601 and associated schedules will be used to apply for initial authorizations, modifications (major and minor) to existing authorizations, amendments to pending applications, renewals of station authorizations, developmental authorizations, special temporary authorities (STAs), certifications of construction, requests for extension of time, cancellations, and administrative updates. The required schedules are:

- New/Modification/Amendment (Regular Authorizations, Developmental Authority and Special Temporary Authority) – FCC Form 601 Main Form with required technical schedule.
- Renewals/Cancellation/Administrative Updates – FCC Form 601 Main Form and Schedule A (if requesting multiple call signs).[559]
- Certifications of Construction – FCC Form 601 Main Form and Schedule K.
- Extension of Time to Construct – FCC Form 601 and Schedule L.

256. *FCC Form 602.* This form will replace the FCC Form 430 for the submission of initial and updated ownership information for those wireless radio services that require the submission of such information.[560]

257. *FCC Form 603.* This form will replace FCC Forms 305, 306 and 330. Applicants use the FCC Form 603 and associated schedules to apply for consent to assignment of existing authorizations (including channel swaps), to apply for Commission consent to the transfer of control of entities holding

[554] *See NPRM,* 18 FCC Rcd at 6809-11 ¶¶ 215-219.

[555] The MDS and ITFS application forms are FCC Forms 304, 304A, 305, 306, 330, 330A, 330R, 331, 405, 430, and 701.

[556] *ULS R&O*, 13 FCC Rcd at 21033-34 ¶ 10.

[557] *Id*.

[558] *Id*.

[559] *See* 47 C.F.R. § 1.949 for the rules governing renewals.

[560] *See* n.450, *supra*; 47 C.F.R. § 0.408.

authorizations, to notify the Commission of the consummation of assignments or transfers, and to request extensions of time for consummation of assignments or transfers. Additionally, applicants use the form to apply for partial assignments of authorization, including partitioning and disaggregation. The required schedules are:

- Assignment/Transfer of Control – FCC Form 603 Main Form and Schedule A for auctionable services.[561]
- Partitioning & Disaggregation – FCC Form 603 Main Form and Schedule B or Schedule D as required.
- Consummation Notifications – FCC Form 603 and Schedule D.
- Extension of Time for Consummation – FCC Form 603 and Schedule E.

258. *Discussion.* After reviewing the limited comments we received on this issue, we conclude that eliminating the current MDS and ITFS forms and replacing them with the ULS forms will streamline the processing of applications and reduce the filing burden for MDS and ITFS applicants and licensees. We received no comments opposing the replacement of the forms that MDS and ITFS licenses currently use the four ULS forms. AHMLC and IMLC support the planned elimination of Form 430 in favor of Form 602.[562] The Rural Commenters believe that the Section 21.11(a) requirement for annual updates of the FCC Form 430 Licensee Qualification Report can be eliminated at no loss to the effectiveness of the Commission's mission. We find this a curious comment in that we are now requiring BRS and EBS applicants to update their ownership information pursuant to FCC Form 602.[563] Accordingly, we adopt rules to use the ULS forms for BRS and EBS, thereby eliminating the current MDS and ITFS forms. We note that by using the ULS Forms, we will eliminate a number of obsolete MDS and ITFS forms from our rules.[564]

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[561] *See* 47 C.F.R. § 1.948.

[562] *See* AHMLC Comments at 6; IMLC Comments at 8-9. AHMLC, however, observes that certain legal qualifications information called for by Form 430 (status of criminal and antitrust litigation) is not called for by Form 602. *See id.* We agree with AHMLC's observations, however, we believe that MDS and ITFS applicants should only have the same Form 602 requirements as all our other wireless services, which is consistent with the streamlining goals of this proceeding.

[563] *See* Rural Commenters Comments at 6. We note that FCC Form 602 must be filed or updated under the following circumstances:

- Applicants filing to obtain a new license or authorization who do not have a current FCC Form 602 on file with the FCC. *See* 47 C.F.R. § 1.919(b)(1).
- Applicants filing to renew an existing license or authorization who do not have a current FCC Form 602 on file with the FCC. *See* 47 C.F.R. § 1.919(b) (2).
- Applicants requesting approval for a transfer of control of a license or assignment of an authorization who do not have a current FCC Form 602 on file with the FCC. *See* 47 C.F.R. §§ 1.919(b) (3), 1.948(c).
- Applicants filing a notification of consummation of a *pro forma* transfer of control of a license or assignment of authorization under the Commission's forbearance procedures who do not have a current FCC Form 602 on file with the FCC. *See* 47 C.F.R. §§ 1.919(b)(4), 1.948(c)(1)(iii), 1.948(d).

[564] *See e.g.* 47 C.F.R §§ 73.3500, 73.3536 (elimination of all references to FCC Form 330-L, "Application for Instructional Television Fixed Station License); 47 C.F.R. §§ 21.11(b), 73.3500, 73.3533(b) (elimination of all references to FCC Form 307). In addition, we propose to delete references to obsolete MDS forms mentioned in Part 74. *See* 47 C.F.R. § 74.991.

17. Transition Periods

259. *Background.* In the *NPRM*, we proposed to allow continued use of the current ITFS and MDS forms for a transition period of six months after the effective date of the release of an *R&O* in this proceeding.[565] This period is consistent with the transition period the Commission used with the initial implementation of ULS.[566] At the conclusion of this period, only ULS forms would be accepted for these services. We noted that in the ULS *R&O*, the Commission provided a transition period for applicants and licensees to use ULS voluntarily before implementing mandatory electronic filing using the ULS forms.[567] Generally, the Commission determined that permitting a six-month transition period was appropriate.[568] Further, we noted that the six-month transition period has worked reasonably well for the other services that have transitioned to ULS.[569]

260. *Discussion.* We conclude that the proposed six month period for transitioning to mandatory electronic filing is appropriate. We note that we received no comments opposing our proposal. AHMLC and IMLC believe establishing a 180-day period for assignments of authorization and transfers is consistent with the general ULS rule.[570] Similarly, OWTC believes the 6-month transition period will help licensees understand any new or consolidated forms. In light of the significant changes proposed to the EBS and BRS forms and rules, we agree with OWTC and believe applicants and licensees should receive a transition period to familiarize themselves with ULS and begin using ULS forms. This period will provide EBS and BRS applicants and licensees with sufficient time to familiarize themselves with ULS and to plan an orderly transition from using existing forms to using the ULS forms. Accordingly, we adopt a six-month transition period after the effective date of the rules we have adopted today before requiring mandatory electronic filing by BRS and EBS applicants and licensees in ULS. Consistent with prior actions, WTB will release a public notice announcing the relevant commencement date for the processing of applications in the Services via ULS.[571]

18. Suspension of Acceptance and Processing of Applications*:*

261. *Background.* In the *NPRM*, we concluded that we would process pending ITFS applications filed prior to release of the *NPRM* provided that they were not mutually exclusive with other applications as of the release date of the *NPRM*.[572] We stated that this approach gives due deference to

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[565] *See NPRM,* 18 FCC Rcd at 6811-13 ¶¶ 220-225.

[566] *See ULS R&O*, 13 FCC Rcd at 21027, 21038-39 ¶ 16.

[567] *See id.* at 21042-43 ¶ 24.

[568] *See id.*

[569] *See ULS R&O,* 13 FCC Rcd at 21042-43 ¶ 22-4.

[570] *See* AHMLC Comments at 7; IMLC Comments at 10.

[571] *See, e.g., Public Notice:* Wireless Telecommunications Bureau to Begin Use of Universal Licensing System (ULS) for Microwave Services (DA 99-154, rel. Aug. 30, 1999).

[572] *See NPRM,* 18 FCC Rcd at 6813-14 ¶ 228. In the interest of completeness, we note that in the *NPRM* we stated that effective as of its *release* date, we would suspend acceptance of applications for ITFS channels for new licenses, amendments or modifications for any kind of station temporarily, except for ITFS channels that involve minor modifications, assignment of license or transfer of control. We explained the suspension is effective until further notice and applies to applications received on or after the date of release of the *NPRM*. *See NPRM,* 18 FCC Rcd at 6813 ¶¶ 226-227. On August 8, 2003, however, we modified the freeze by allowing the filing of (continued….)

those applicants who filed applications prior to our proposed changes and whose applications are not subject to competing applications. We also stated that we would not accept settlement agreements relating to mutually exclusive ITFS applications filed after the release date of the *NPRM*, but that we would act on settlement agreements filed prior to release of the *NPRM* that are compliant with our rules.[573] We noted that the Commission has used this approach in other services where it proposed a transition to geographic area licensing.[574]

262. We tentatively concluded that upon adoption of this *R&O*, we would dismiss, without prejudice, applications for ITFS stations filed prior to the adoption of the *NPRM* that do not meet the above criteria.[575] We sought comment from any parties proposing that we retain such applications and asked these parties to address how such applications should be processed, particularly in the event of any auction for spectrum covered by the application.[576]

263. *Discussion.* After reviewing the comments we received, we conclude that we will adopt our tentative conclusion. HITN asserts that "only entities whose applications are currently mutually exclusive and that have been accepted for filing by the Commission should be permitted to participate in an auction against each other for the channels that are subject to those applications."[577] We disagree with HITN, and note that with regard to pending applications in other services that have been converted to geographic area licensing, the Commission has dismissed the pending mutually exclusive applications at bar.[578] Thus, we dismiss all applications for ITFS stations that were filed prior to adoption of the *NPRM* where: the applications are mutually exclusive, and the applicants filed settlement agreements subsequent to the release of the *NPRM*, and/or applicants filed settlement agreements prior to the release of the *NPRM*,

(Continued from previous page)
applications for new licenses and major modifications of MDS stations adopted in the *MO&O*. With respect to ITFS stations, we accepted major change applications, subject to the existing requirement that a licensee may not modify its protected service area (PSA). As modified, the freeze on MDS and ITFS applications will revert to the *status quo ante* that applied before the *MO&O* was adopted. *See* Amendment of Parts 1, 21, 73, 74 and 101 of the Commission's Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands, Part 1 of the Commission's Rules - Further Competitive Bidding Procedures, Amendment of Parts 21 and 74 to Enable Multipoint Distribution Service and the Instructional Television Fixed Service Amendment of Parts 21 and 74 to Engage in Fixed Two-Way Transmissions, Amendment of Parts 21 and 74 of the Commission's Rules With Regard to Licensing in the Multipoint Distribution Service and in the Instructional Television Fixed Service for the Gulf of Mexico, WT Docket No. 03-66 RM-10586, WT Docket No. 03-67, MM Docket No. 97-217, WT Docket No. 02-68 RM-9718, *Second Memorandum Opinion and Order*18 FC Rcd 16848 (2003).

[573] *See NPRM,* 18 FCC Rcd at 6813-14 ¶ 228. If we approve such a settlement agreement, we will allow the processing and grant of the remaining non-mutually exclusive applications. *Id.*

[574] *See, e.g.,* Amendment of the Commission's Rules Regarding Maritime Communications, PR Docket No. 92-257, *Second Report and Order and Second Further Notice of Proposed Rule Making*, 12 FCC Rcd 16949, 17015-17016 (1997).

[575] *See NPRM,* 18 FCC Rcd at 6813-14 ¶ 228.

[576] *Id.*

[577] *See* HITN Comments at 9-10.

[578] *See* n.574, *supra*.

but the settlement agreement did not comply with our rules.[579]

V. FURTHER NOTICE OF PROPOSED RULEMAKING

A. Licensing All Available Spectrum Pursuant to the New Band Plan

264. We now consider what further actions, if any, may be necessary to achieve potential benefits of the new band plan and service rules, such as deployment of new broadband services, throughout the entire band. In the foregoing *Report and Order*, we adopted a new band plan for the 2496-2690 MHz band, *i.e.*, for EBS and BRS spectrum, to further various public interest objectives, including the public interest in efficient and intensive use of the spectrum. To facilitate transition of EBS and BRS incumbents to the new band plan, we have established a three-year period during which a "proponent," either unilaterally or in combination with other proponents, can develop and file an Initiation Plan for moving all EBS and BRS licensees within the proponent's MEA to new spectrum assignments under the new band plan, subject to certain requirements and safeguards. The three-year limit on filing Initiation Plans provides an incentive for existing users to develop transition proposals in a timely manner. However, proponents' Initiation Plans may not be sufficient, without additional action, to achieve throughout the entire band all the benefits made possible by the *Report and Order*. For example, Initiation Plans cannot put to use spectrum currently unassigned to any incumbent. Moreover, the filing of Initiation Plans is purely voluntary and consequently Initiation Plans may not be filed covering all MEAs.

265. Accordingly, in this *Further Notice,* we seek comment on how best to license EBS and BRS spectrum that timely-filed Initiation Plans would leave either unassigned or un-transitioned. In addition, we seek comment on whether an alternative process for transitioning areas not governed by Initiation Plans proposed in this *Further Notice* should be open to individual licensees that are subject to timely-filed Initiation Plans and subsequently would prefer to participate in the alternative process. We seek comment on all aspects of the proposals set forth below, as well as any comment on alternatives that commenters may suggest to address the relevant policy objectives.

1. New Licenses to Be Assigned by Auction

266. As a general matter, we propose to assign by auction any new licenses for spectrum in the band, with any auction being open to all parties, both incumbents and new entrants, potentially eligible to hold the licenses offered. Accordingly, licenses with restricted eligibility, such as EBS licenses, could be bid on only by parties potentially meeting all the restrictions on licensees. An auction is most likely to assign the license to the qualified licensee that most highly values it if the auction is open to all potentially qualified licensees.[580] The new band plan and service rules, together with geographic area licensing, will

[579] *See* Appendix E for list of dismissed applications. *See* Appendix F for a list of dismissed pleadings relating to the dismissed applications.

[580] *See generally* Implementation of Section 309(j) of the Communications Act – Competitive Bidding, PP Docket No. 93-253, *Second Report and Order*, 9 FCC Rcd 2348, 2360-2361, ¶¶ 70-71 (1994). Citing prior Commission proceedings, the Coalition proposed that participation in an auction of ITFS white space should be limited solely to parties with pending applications for licenses associated with unassigned ITFS spectrum. White Paper at 41 and n.111 (quoting 13 FCC Rcd at 16,002). Previously, the Commission observed that "it would not serve the public interest to accept additional competing ITFS applications despite our authority to do so under Section 309(j)(1)," and therefore the only "eligible bidders in any auction of the pending ITFS applications" ought to be "those with applications already on file." *Id.* However, this prior observation applied solely with respect to "any auction of the *pending ITFS applications*[.]" Those applications have been otherwise resolved. We propose that the auction for clear spectrum discussed herein will be open to all qualified applicants for the reasons set forth above.

give licensees greater operational flexibility to modify, move, and add to their facilities, which may improve spectrum utilization. In addition, this greater operational flexibility may result in new and competing proposals for utilizing the public spectrum resource from new parties. Applicants intending very different uses of the new licenses can express the respective values a particular license has for their intended use in easy to compare competitive bids. This enables the Commission rapidly to assign licenses to parties most likely to put them to their highest value use.

267. We previously sought comment on potential auctions in this band in the initial *Notice of Proposed Rulemaking*. We now seek comment on potential auctions in light of the Commission's decisions in the *Report and Order* regarding the new band plan, the new service rules, and the process for proponents to prepare Initiation Plans to transition MEAs to the new band plan. To the extent that commenters believe that previously filed comments remain relevant in this new context, we ask that they file new comments explaining why their prior positions continue to apply. In order to assure that all potential parties have an opportunity to address issues relating to potential auctions in this new context, we reiterate our requests for comment on some particular details of the auction process in this new context. In addition to seeking comment on the proposals discussed herein, we seek comment on alternative approaches.

268. In MEAs where proponents timely file Initiation Plans, we propose to assign by auction new licenses for unassigned spectrum, *i.e.,* for spectrum in any unassigned frequency blocks and in geographic areas outside incumbent licensees' GSAs. Such unassigned spectrum will be composed primarily, if not exclusively, of EBS spectrum, given that the Commission exhaustively licensed MDS spectrum by assigning overlay MDS licenses following Commission Auction No. 6.[581] As discussed below, we seek comment on whether we should make licenses for this spectrum available in a particular MEA in response to the filing of an Initiation Plan or hold the spectrum for a general auction of all potentially available spectrum in the band.

269. In MEAs where no proponent timely files an Initiation Plan, we seek comment on a proposed process for transitioning to the new band plan. As detailed below, we propose to make all spectrum in such MEAs available by clearing existing spectrum assignments, issuing incumbent EBS and BRS licensees modified licenses to continue current operations until new licensees give notice of intent to offer incompatible new services and transferable bidding offset credits to preserve their ability to access spectrum of comparable value. We then would assign by auction new licenses in such MEAs pursuant to the new band plan. We seek comment on all aspects of this proposal, as well as alternatives.

270. In addition, we also seek comment on whether, in MEAs where proponents timely file Initiation Plans, individual licensees subject to the Initiation Plan should be given the option of participating in the proposed process for transitioning other areas to the new band plan. In brief, individual licensees that for any reason did not want to accept the new spectrum assignment resulting from the Initiation Plan could relinquish their new assignment in exchange for a modified license and a transferable bidding offset credit. Such action might place all potentially available licenses in the band in a single auction. As discussed further below in connection with new license areas, this process also may facilitate the creation of larger, more functional geographic areas than the new licenses created pursuant to the Initiation Plan. We seek comment on whether such an option might serve the public interest in use of the spectrum generally, and particularly whether such an option might facilitate implementation of Initiation

[581] In the event that particular overlay licenses were returned or otherwise cancelled, there may be unassigned MDS spectrum available for licensing.

Plans by giving opponents subject to Initiation Plans a viable alternative.

a. When to Assign New Licenses

271. As an initial matter, we seek comment on whether the timely filing of an Initiation Plan should result in licenses for unassigned spectrum in the relevant MEA being made available for assignment within a specified time period after the filing. Generally, one option would be to conduct a single auction of licenses for all available spectrum in the band after the close of the three-year period for filing Initiation Plans, whether the spectrum was unassigned, cleared for purposes of transitioning MEAs to the new band plan, or relinquished by incumbents voluntarily clearing already transitioned spectrum. This would enable all potentially interested parties to participate in a single, simultaneous auction offering transparent price information regarding substitutable or complementary licenses in the band. However, previously unassigned spectrum might be primarily, or even exclusively, of interest to incumbent licensees in an area subject to a proponent's timely-filed Initiation Plan. In such a case, the benefit of making that spectrum available to enhance the Initiation Plan's transition to the new band plan might outweigh the benefit of offering that spectrum in a potential future auction of all available spectrum in the band. Alternatively, however, making unassigned spectrum available as a result of the filing of an Initiation Plan could delay the development or implementation of Initiation Plans by posing unanticipated variables for the proponent.

272. To assist in determining whether one of these or some other scenario is likely to occur, we seek comment on when to assign new licenses by auction for unassigned spectrum in MEAs subject to timely-filed Initiation Plans. Should we wait until the time for filing Initiation Plans expires, so that all spectrum potentially available for new licenses can be identified? Or should we assign licenses for unassigned spectrum in an MEA as soon as possible after the timely filing of an Initiation Plan? How quickly should auctions for such licenses be held after the timely filing of the Initiation Plan? Should there be a minimum amount of time following the filing of an Initiation Plan before such an auction should be held? Should there be a maximum amount of time? We note that it appears impractical to conduct auctions for each MEA as Initiation Plans are filed. Is the unassigned spectrum likely to be of interest to parties other than incumbent EBS and, to the extent such spectrum is available, BRS licensees in the relevant MEA? Should we give any consideration to any claims by incumbents that assigning such licenses prior to implementation of the Initiation Plan may interfere with the transition to the new band plan?

273. We also welcome comment on when to hold an auction of licenses for spectrum that is not transitioned pursuant to an Initiation Plan. In light of the potential for filing Initiation Plans any time within three years of the date of the foregoing *Report and Order,* we could not hold any such auction any earlier than three years after that date. We seek comment, however, on whether there would be any reason, other than the practical considerations of preparing to conduct an auction, for the Wireless Telecommunications Bureau to refrain from considering such an auction beginning three years after the *Report and Order*.

b. Geographic Areas for New Licenses

274. In contrast to new spectrum assignments resulting from proponents' Initiation Plans, the Commission will have the flexibility to use new geographic area licensing definitions for new licenses. We propose to use Major Economic Areas as the basis for new licensing in the LBS and Upper Band Segment, and to use Economic Areas as the basis for new licensing in the MBS. We believe these proposed area definitions provide a better framework for new licensing than GSAs derived from the PSA of existing EBS and BRS licensees. The geographic limits of existing site-based licenses may limit new low or high-power services the new service rules otherwise make possible. For example, a licensee

seeking to re-site a high-power transmitter and make use of the flexibility of geographic area licensing may be unable to do so if the new licensing area is closely hemmed in by other licenses. Furthermore, licensees seeking to deploy new mobile low-power service may be unable to do so if they cannot aggregate existing licenses to create a sufficient area to satisfy consumer demand for coverage.

275. *License areas for LBS and UBS spectrum.* While useable for many purposes, licenses in the Lower and Upper Band Segments authorizing low-power use offer particularly significant opportunities for providing ubiquitous mobile service. The larger the service area is, the more likely the licensee would be able to offer service anywhere that a potential customer may need it. Furthermore, licensees that choose not to serve the entire geographic area covered by the license could, subject to Commission rules, partition the license or lease spectrum rights to other parties interested in serving those areas. Finally, because the transition process adopted in the *Report and Order* is organized by MEA, using MEAs to license spectrum in the LBS and UBS may facilitate coordination with incumbents who develop MEA-based transition plans. We therefore seek comment on using MEAs for new licensing in the Upper and Lower Band Segments. We also seek comment on alternative proposals for LBS and UBS area definitions.

276. *License areas for MBS spectrum.* Licenses in the MBS authorizing high-power uses may be well suited to fixed broadcasting services, similar to existing ITFS and MDS services. Furthermore, these licenses may be of greatest interest to licensees seeking to expand services without discontinuing current service. In light of these factors, we believe that potential MBS licensees would be interested in areas larger than the PSA of an EBS or BRS license, but not necessarily much larger. Given these circumstances, license areas smaller than MEAs may meet the needs of potential MBS licensees. We therefore propose to use Economic Areas as the basis for new licensing in the MBS. We note that EAs can be aggregated into MEAs, which may facilitate coordination with incumbents who transition into MBS frequency assignments in accordance with MEA-based transition plans. We seek comment on this proposal and on alternative proposals.

277. *License areas for new licenses for previously unassigned spectrum.* Licenses for previously unassigned spectrum could be licensed based on the defined frequencies and geographic area that previously were unassigned. In addition, we could consider whether the public interest would be better served by assigning a single new license for multiple areas. Alternatively, we could make available new MEA and EA licenses, for low and high-power channels respectively, that would overlay existing licenses in MEAs subject to an Initiation Plan. These overlay licenses would encompass all previously unassigned spectrum in particular frequency blocks in the relevant geographic area. The overlay licenses would not provide any rights with respect to areas covered by other licenses but would simply clarify that any area within the MEA or EA not covered by the other licenses was the subject to the MEA or EA license. We seek comment on these alternatives, in particular on whether issuing overlay licenses as described could inadvertently create any uncertainty regarding the rights of other incumbents?

278. *License areas for relinquished spectrum.* As discussed further below, we seek comment on whether to offer incumbent licensees subject to Initiation Plans the option of relinquishing spectrum assignments pursuant to the Initiation Plan in order to participate in an alternative transition to the new band plan. Licenses for spectrum made available by any incumbents exercising this option could be licensed based on the defined geographic area of the relinquished license. In the event that incumbents relinquish multiple licenses in a single MEA subject to an Initiation Plan, we could consider whether the public interest would be better served by assigning a single new license for multiple areas. Alternatively, we could make available new MEA and EA licenses, for low and high-power channels respectively, that would overlay existing licenses in MEAs subject to an Initiation Plan. These overlay licenses would encompass all spectrum previously subject to relinquished licenses in the relevant geographic area. The

overlay licenses would not provide any rights with respect to areas covered by other licenses but would simply clarify that any area within the MEA or EA not covered by the other licenses was the subject to the MEA or EA license. We seek comment on these alternatives, in particular on whether either alternative creates different incentives for incumbent licensees that might opt to participate in the alternative transition, as well as the different effects, if any, each would have on other incumbent licensees in the relevant MEA or EA. For example, would defined geographic areas or overlay licenses enhance or decrease the value of new licenses made available by opt-in licensees, thereby giving those licensees a greater incentive to relinquish licenses? Could issuing overlay licenses as described inadvertently create any uncertainty regarding the rights of other incumbents?

c. Frequency Blocks for New Licenses

279. We seek comment on the proper grouping of frequency blocks in an auction of new LBS, MBS, and UBS licenses. One option would be to license each block in each band segment separately. Alternatively, we could maintain consistency with current channel groupings by licensing three LBS or UBS blocks with an MBS block in the same groups incumbents are entitled to receive pursuant to a proponent initiated transition, *i.e.*, license an "A block" of three LBS blocks and one MBS block at the lower end of the respective segments. Should we consider grouping any EBS LBS blocks with any BRS UBS blocks? We also could group all LBS and UBS spectrum within a service as one segment, with a separate segment for all MBS spectrum within a service. We seek comment on these and other alternatives.

280. We also seek comment on whether parties seeking new licenses may be indifferent to the specific frequencies they receive, so long as they are authorized to use frequencies with particular characteristics, e.g., in particular band segments or on uniform frequencies across multiple license areas. If such indifference exists, it may be possible to allow bidders to bid within or across markets on a non-frequency specific basis. Accepting bids for new licenses based on characteristics bidders consider relevant without requiring them to specify particular frequencies could make coordination of auction bids easier and increase the likelihood of assigning the new licenses to parties that value them the most. Accordingly, we seek comment on whether potential bidders would place different values on different frequencies in the same area within the same band segment. We note that the Bureau could exercise its delegated authority regarding auction design so that bidders could be assigned uniform frequencies across markets by taking that constraint into account when the Commission assigns licenses, rather than by having the bidders bid on particular frequencies. Under this approach, if a bidder is indifferent between frequencies in the same area within the same band segment but values having the same frequency in adjacent markets, the Commission's process of assigning specific frequencies could take that into account, perhaps simply by assigning frequencies first to bidders winning across adjacent markets. We seek comment on this approach.

d. Rules for Auctions with New Licenses

281. We request comment on a number of issues relating to competitive bidding procedures that could be used to assign new licenses in this band by auction. We propose to conduct any such auction in conformity with the general competitive bidding rules set forth in Part 1, Subpart Q, of the Commission's rules, and substantially consistent with many of the bidding procedures that have been employed in previous auctions.[582] Specifically, we propose to employ the Part 1 rules governing, among

[582] *See, e.g.,* Amendment of Part 1 of the Commission's Rules—Competitive Bidding Procedures, WT Docket No. 97-82, *Order, Memorandum Opinion and Order and Notice of Proposed Rule Making,* 12 FCC Rcd 5686 (1997); (continued….)

other things, competitive bidding design, designated entities, application and payment procedures, collusion issues, and unjust enrichment.[583] Under this proposal, such rules would be subject to any modifications that the Commission may adopt in our Part 1 proceeding.[584] In addition, consistent with current practice, matters such as the appropriate competitive bidding design, as well as minimum opening bids and reserve prices, would be determined by the Wireless Telecommunications Bureau pursuant to its delegated authority.[585] We seek comment on whether any of our Part 1 rules or other auction procedures would be inappropriate or should be modified for an auction of new licenses in this band.

e. Bidding Credits for Small Businesses and Designated Entities

282. In 1997, Congress mandated that the Commission "ensure that small businesses, rural telephone companies, and businesses owned by members of minority groups and women are given the opportunity to participate in the provision of spectrum-based services."[586] In addition, section 309(j)(3)(B) of the Act provides that in establishing eligibility criteria and bidding methodologies, the Commission shall promote "economic opportunity and competition . . . by avoiding excessive concentration of licenses and by disseminating licenses among a wide variety of applicants, including small businesses, rural telephone companies, and businesses owned by members of minority groups and women."[587]

283. The Commission's existing designated entity provisions apply based on an entity's qualification as a small business.[588] We note that minority and women-owned businesses and rural telephone companies that qualify as small businesses may take advantage of the special provisions we have

(Continued from previous page)
Third Report and Order and Second Further Notice of Proposed Rule Making, 13 FCC Rcd 374 (1997) (*Part 1 Third Report and Order)*; *Order on Reconsideration of the Third Report and Order, Fifth Report and Order, and Fourth Further Notice of Proposed Rule Making*, 15 FCC Rcd 15293 (2000) (*recon. pending*) (*Part 1 Recon Order/ Fifth Report and Order* and *Fourth Further Notice of Proposed Rule Making*); *Seventh Report and Order*, 16 FCC Rcd 17546 (2001); *Eighth Report and Order,* 17 FCC Rcd 2962 (2002).

[583] *See* 47 C.F.R. § 1.2101 *et seq.*

[584] *See Fourth Further Notice of Proposed Rule Making*, 15 FCC Rcd 15293; *see also Part 1 Recon Order/Fifth Report and Order*, 15 FCC Rcd 15293 (*recon. pending*) [cite check – recon pending?].

[585] *See* Amendment of Part 1 of the Commission's Rules - Competitive Bidding Procedures*, Third Report and Order and Second Further Notice of Proposed Rule Making*, 13 FCC Rcd 374, 448-49, 454-55 ¶¶ 125, 139 (directing the Bureau to seek comment on specific mechanisms relating to auction conduct pursuant to the Balanced Budget Act of 1997) (*Part 1 Third Report and Order*).

[586] *See* 47 U.S.C. § 309(j)(4)(D).

[587] *See* 47 U.S.C. § 309(j)(3)(B).

[588] *See* 47 C.F.R. § 1.2110(a). Although the Commission previously extended designated entity preferences to minority- and women-owned businesses, as well as to small businesses, following the Supreme Court's rulings in *Adarand Constructors, Inc. v. Pena*, 515 U.S. 200 (1995), and *United States v. Virginia, et al.*, 518 U.S. 515 (1996), the Commission concluded that it would not be appropriate to adopt special provisions for minority-owned and women-owned businesses pending the development of a more complete record on the propriety of race- and gender-based provisions for future auctions. *See Part 1 Fifth Report and Order*, 15 FCC Rcd at 15318-20 ¶¶ 45-50 (discussing constitutional standards and governmental interests that would justify the use of race- or gender-based preferences).

adopted for small businesses.[589] We seek comment on whether our small business provisions are sufficient to promote participation by businesses owned by minorities and women, as well as rural telephone companies.[590] To the extent that commenters propose additional provisions to ensure participation by minority- or women-owned businesses, or rural telephone companies, they should address how such provisions should be crafted to meet the relevant constitutional standards.

284. We seek comment on the appropriate definition(s) of small business that should be used to determine eligibility for bidding credits in the auction. With respect to the auction of EBS licenses, we further seek comment on any special challenges associated with governmental educational institutions or non-governmental non-profit educational institutions participating in auctions.

285. In the *Competitive Bidding Second Memorandum Opinion and Order*, the Commission stated that it would define eligibility requirements for small businesses on a service-specific basis, taking into account the capital requirements and other characteristics of each particular service in establishing the appropriate threshold.[591] The Part 1 Third *Report and Order*, while it standardizes many auction rules, provides that the Commission will continue a service-by-service approach to defining small businesses.[592] Generally, when establishing service-specific small business size standards, we look to the capital required to provide likely service using the spectrum. We do not know the precise type of service that new licensees may attempt to provide in this band. The Coalition has suggested that the ITFS and MDS bands may be used to provide ubiquitous broadband services using next generation low-power, cellular systems on fixed, portable and/or mobile bases.[593] We invite comment on whether likely services in this band may have capital requirements similar to current BRS services; or similar to mobile services, such as Personal Communications Services; or similar to fixed services, such as services in the 24 GHz and 39 GHz bands.

286. In the *Part 1 Third Report and Order*, we adopted a standard schedule of bidding credits for certain small business definitions, the levels of which were developed based on our auction experience.[594] The standard schedule appears at Section 1.2110(f)(2) of the Commission's rules.[595] Are these levels of bidding credits appropriate for this band? For this proceeding, we would propose to define an entity with average annual gross revenues not exceeding $40 million for the preceding three years as a "small business;" an entity with average gross revenues not exceeding $15 million for the same period as a "very small business;" and an entity with average gross revenues not exceeding $3 million for the same

[589] *See Part 1 Fifth Report and Order*, 15 FCC Rcd at 15319 ¶ 48; *see also* FCC Report to Congress on Spectrum Auctions, WT Docket No. 97-150, *Report*, FCC 97-353 at 29 (rel. Oct. 9, 1997) (finding that special provisions for small businesses also increase opportunities for minority- and women-owned businesses).

[590] We have issued a Notice of Inquiry seeking information about the effectiveness of our provisions to promote participation by rural telephone companies in our competitive bidding proceedings. *See* Facilitating the Provision of Spectrum-Based Services to Rural Areas and Promoting Opportunities for Rural Telephone Companies to Provide Spectrum-Based Services, WT Docket No. 02-381, *Notice of Inquiry*, FCC 02-325 (rel. Dec. 20, 2002).

[591] Implementation of Section 309(j) of the Communications Act—Competitive Bidding, PP Docket No. 93-253, *Second Memorandum Opinion and Order*, 9 FCC Rcd 7245, 7269 ¶ 145 (1994) (*Competitive Bidding Second Memorandum Opinion and Order*); 47 C.F.R. § 1.2110(c)(1).

[592] *Part 1 Third Report and Order*, 13 FCC Rcd at 388 ¶ 18; 47 C.F.R. § 1.2110 (c)(1).

[593] *See* White Paper at 11.

[594] *See Part 1 Third Report and Order*, 13 FCC Rcd at 403-04 ¶ 47.

[595] *See* 47 C.F.R. § 1.2110(f)(2).

period as an "entrepreneur."[596] In the event that we offer bidding credits on this basis, we propose to provide qualifying "small businesses" with a bidding credit of 15%, qualifying "very small businesses" with a bidding credit of 25%; and qualifying "entrepreneurs" with a bidding credit of 35%, consistent with Section 1.2110(f)(2).[597] Finally, we invite comment on the effect of potentially having three small business sizes, and bidding credits, for new licenses in this band while having had only one small business size (average annual gross revenues for the preceding three years not exceeding $40 million) and one credit (15%) in the BRS service.[598] We seek comment on this proposal.

287. We recognize that educational institutions and non-profit educational organizations eligible to hold EBS licenses may have unique characteristics. We therefore invite comment on whether distinctive characteristics of EBS licensees require distinct rules for assessing the relative size of potential participants in an auction. How do our designated entity provisions comport with the unique challenges and status of educational institutions? Should we establish special provisions for non-profit educational institutions that may want to have access to EBS spectrum but do not have the financial capability to compete in an auction for spectrum licenses? Commenters that propose special provisions for non-profit educational institutions should address the statutory basis for such proposals. Our standard schedule of small business bidding credits provides for bidding credits based on a calculation of bidders' average annual gross revenues for the three years preceding the auction.[599] We seek comment on whether the non-commercial character of EBS licensees requires any special procedures for determining the average annual gross revenues of such entities. For example, are our standard gross revenue attribution rules an appropriate method of evaluating the relative resources of universities and government entities? We also invite comment on whether some other criterion besides average annual gross revenues should be used for identifying small entities among EBS licensees and similar applicants.

288. Commenters proposing alternative business size standards should give careful consideration to the likely capital requirements for developing services in this spectrum. In this regard, we note that new licensees may be presented with issues and costs involved in transitioning incumbents and developing markets, technologies, and services. Commenters also should consider whether the band plan and characteristics of the band suggest adoption of other small business size definitions and/or bidding credits in this instance.

2. Transitions to the New Band Plan When No Proponent Files a Timely Initiation Plan

289. Notwithstanding the Commission's rules facilitating proponent-initiated transitions to the new band plan, there may be some MEAs where potential proponents are unable or unwilling to develop a viable Initiation Plan within the allotted three-year period. Although we could extend the three-year period for filing Initiation Plans, we are concerned that this would introduce delay and uncertainty into the transition process and could frustrate successful implementation of the new band plan. We believe that in MEAs for which no Initiation Plan is submitted within the three-year period, the Commission should move the transition forward by adopting an alternative process for transitioning to the new band plan.

[596] *See* 47 C.F.R. § 1.2110(f)(2). We note that we will coordinate the small business size standards for ITFS in this proceeding with the U.S. Small Business Administration.

[597] 47 C.F.R. § 1.2110(f)(2)(i)-(iii).

[598] *See* 47 C.F.R. § 21.961(b).

[599] *See* 47 C.F.R. § 1.2110(b).

Accordingly, with respect to such MEAs, we seek comment on the proposal detailed below, as well as on other alternatives proposed.

290. In summary, the proposal presented here calls for the Commission to adopt rules to clear current spectrum assignments from the band while preserving the incumbents' ability to access spectrum comparable in value to currently assigned spectrum. As an initial matter, incumbents would receive modified licenses to enable them to continue current operations, for the duration of the license, so long as those operations did not conflict new licensees' plans to utilize the spectrum pursuant to the new band plan.[600] Moreover, incumbents would be issued bidding offset credits to enable them to obtain spectrum licenses comparable in value to their original licenses. The proposal calls for new licenses consistent with the new band plan to be assigned by an auction open to all potentially qualified licensees. Accordingly, licenses with restricted eligibility, such as EBS licenses, could be bid on only by parties potentially meeting all the restrictions on licensees. Incumbents could use their bidding offset credits to obtain licenses comparable in value to their original licenses in this or any other Commission auction. Finally, we propose that this alternative transition process include a limited "opt-out" option for incumbents who prefer to preserve current high-power operations to the extent possible on a frequency block in the MBS, rather than to pursue the wider options available under the new band plan. New licensees whose licenses cover spectrum made available by the relocation of such opt-outs would be required to pay the incumbent's costs of relocating its operations, including any upgrade to digital transmission. We seek comment on all aspects of this proposal, as well as on all aspects of other alternatives proposed.

291. We also welcome comment on the following principles guiding the proposal outlined below, both generally and with regard to how particular aspects of the proposal, or suggested alternatives, comply or conflict with them. First, the proposal seeks to achieve the benefits of the new band plan and service rules without imposing inequitable or unnecessary burdens or disruptions on existing spectrum users and uses, or more particularly on prior Commission licensing decisions authorizing those users and uses. In this regard, the proposal need not impose any burdens or disruptions greater than those that will result from a transition to the new band plan pursuant to a proponent-sponsored Initiation Plan. Indeed, if all the incumbents in an MEA act together under the proposal, they should be able to use the bidding offset credits that they would receive to outbid any other applicants for new licenses covering all the incumbents' original spectrum assignments in their MEA. Acting together, such incumbents then could partition and disaggregate the spectrum to achieve the same result they could have achieved under a transition pursuant to a proponent's Initiation Plan. Obviously, incumbents seeking such an outcome simply should proceed with a consensus Initiation Plan. We seek comment on this alternative proposal for transitioning to the new band plan precisely because incumbents may be unable to reach consensus on an Initiation Plan. The point here is simply to illustrate that incumbents need be no worse off under this proposal than they would be under an Initiation Plan.

292. Second, the proposal to issue bidding offset credits to incumbent licensees, while somewhat different from past practice, is fundamentally similar to the Commission's prior grant of bidding credits when assigning licenses by auction. In essence, the bidding offset credits proposed here give a bidding preference to incumbent licensees in order to limit the burdens and disruptions on existing spectrum users and use while facilitating a transition to a new band plan and new service rules. Limiting the burdens and disruptions on existing spectrum users and uses reflects the public interest in avoiding unnecessary disruptions to the Commission's licensing decisions in the public interest. The Commission's

[600] This portion of the proposal would not apply to licenses for operations on MDS channels 1 and 2/2A, which would be subject to the separate clearing procedures for that spectrum. However, the remaining element of the proposal, issuing bidding offset credits, would apply to licensees for MDS channels 1 and 2/2A.

decisions to license spectrum are only the first step to achieving the public interest benefits of spectrum use. While past Commission licensing decisions are subject to review and revision, spectrum utilization is facilitated to the extent that parties utilizing spectrum are able to rely reasonably on the continued effectiveness of past Commission action licensing the spectrum. All parties, licensees and consumers, benefit when they can act in reasonable reliance on past Commission licensing action. While the benefits of the new band plan and service rules cannot be achieved without changing the status quo of existing licensees, the proposal's use of bidding offset credits preserves the existing licensees' ability to access spectrum of comparable value, and thereby serves the public interest in effective utilization of the spectrum.

293. Third, the proposal reflects the indispensable role of the Commission in the management of the public spectrum resource. The proposal makes use of market mechanisms, such as auctions, where appropriate but is not an attempt to substitute Commission action for private markets. Adoption of the new band plan and service rules; the creation of new licenses with more effective GSAs; and the assignment of licenses taking into account all potential licensees, are functions the Commission is best, and perhaps uniquely, able to achieve. The proposal attempts to incorporate all these functions in assigning new licenses for the band.

294. Fourth, the proposal reflects appropriate limits on the Commission's authority as a manager of the public spectrum resource. The proposal does not use public funds or credit to compensate licensees. The bidding offset credits that would be issued would be defined by the spectrum that would be made available in an auction of Commission licenses. As detailed below, the Commission would quantify these bidding offset credits in terms of bandwidth and covered population, and the sum total of all the bidding offset credits would be no greater than the sum total of all the licenses measured in bandwidth and covered population. While the proposal would create a process for calculating a face dollar value of those bidding offset credits, the sum total of all bidding offset credits measured in dollars would be no greater than the sum total of winning bids in an auction of licenses for the spectrum.[601]

295. The Commission always balances a variety of public interest goals when managing the spectrum or making any other decisions within its authority. Accordingly, the foregoing principles are guidelines and not absolute requirements for the process of transitioning to the new band plan.

a. Modified Licenses for Incumbents to Continue Current Operations Pending Notice from New Licensees

296. In considering any proposed mechanism for clearing spectrum in MEAs that do not develop their own transition plan, we must consider the public interest in protecting existing spectrum uses and users from needless disruption or inequitable treatment. To accomplish these objectives, we propose to modify existing EBS and BRS licenses, with the exception of licenses for MDS channels 1 and 2/2A, so that incumbents may continue current operations until a new licensee is prepared to use spectrum pursuant to the new band plan in a manner incompatible with incumbent operations and to issue existing EBS and BRS licensees bidding offset credits that should enable them to preserve their access to spectrum of comparable value. With respect to the ability to continue current operations using current spectrum

[601] Should the Commission determine for any reason that the sum total of bidding offset credits should not exceed the sum total of net winning bids, the Commission would have to consider whether to calculate the face dollar value of bidding offset credits using net winning bids or whether to refrain from using small business bidding credits in the auction which will be used as the source of winning bids used to calculate the face dollar value of bidding offset credits.

assignments, licenses for MDS channels 1 and 2/2A would be subject to the separate procedures for clearing that spectrum.

297. Under this proposal, modified licenses would authorize incumbent licensees to continue offering services on existing channels for the duration of the original license, but these rights would be secondary to those conferred by new licenses that we would issue authorizing primary access under the new band plan. This is intended to enable incumbents to continue operations until new licensees prepare to offer incompatible new service; not to enable incumbents to conduct long-term secondary operations. The modified licenses would expire at the end of their term and would not be renewed. Modifying existing licenses in this manner would effectively require incumbents to clear their current spectrum assignments when new licensees are ready to use the spectrum in ways incompatible with existing uses. We seek comment on this proposal.

298. As discussed further below, the bidding offset credits would enable incumbent EBS and BRS licensees to obtain new spectrum licenses offering spectrum access comparable in value to their existing licenses. In addition, we propose permitting incumbent licensees to transfer their bidding offset credits in whole or in part. This could enable incumbents with otherwise limited resources to finance upgrading or relocating existing facilities to take advantage of the wider options under the new band plan. We seek comment on this proposal.

299. *Geographic Areas of Modified Licenses.* The proposed modified licenses held by incumbents would have a GSA determined according to the process for converting PSAs to GSAs, with two exceptions. First, as noted above, licensees for MDS channels 1 and 2/2A would not receive modified licenses. Their continued use of current spectrum assignments would be governed by the separate process for clearing that spectrum. Second, for purposes of determining modified license rights, we propose that BRS licenses issued on a BTA basis that have not been built out as required by Commission rules in effect on the date this *Report and Order* and Further *Notice of Proposed Rulemaking* is released be treated as site-based licenses for sites in operation as of that release date. Under this proposal, post-release build-out would have no effect on the incumbent's modified license or bidding offset credit. Alternatively, BTA licensees could receive credit for post-release build-out only if the post-release build-out satisfies build-out requirements in place prior to the release date. In other words, BTA licensees would be given credit for build-out that was not completed as of the release date but that was undertaken to meet requirements existing prior to that date. We seek comment on these alternatives.

300. *Procedure for Making New Licenses Primary.* We propose the following process to determine when incumbents with modified licenses would be required to accommodate new primary licensees. We also seek comment on alternatives. We would require new licensees to provide notice to the Commission and any affected licensees of intent to commence authorized spectrum use that may interfere with modified licenses. The notice would identify the relevant new and modified licenses and certify that the new licensee has complied with Commission rules regarding service of the notice on all affected licensees and the Commission. As described in the discussion below of the option for incumbents to "opt-out" of this transition process, the notice also would be required to include a certification that the new licensee has taken certain actions to relocate "opt-out" licensees covered by the new license. In the event the Commission subsequently finds that any filed certification regarding relocation is inaccurate, the new licensee on whose behalf the certification was made shall be responsible for all reasonably required costs incurred in the relocation, including the costs of any party arising from the inaccurate certification. Further, we propose that unlike comparable new licensees making correct certifications, a new licensee on whose behalf an incorrect certification was made would not be entitled to recover relocations costs from any other potentially responsible new licensee.

301. We would delegate authority to the Wireless Telecommunications Bureau to issue a Public Notice listing receipt of such notices from new licensees. The Public Notice listing receipt of a notice from the new licensee shall constitute constructive notice to all affected licensees. Absent the required certification, any notice shall be deemed null and void, irrespective of being listed on any Public Notice listing notices received by the Commission. One hundred and eighty (180) days after release of the Public Notice announcing the receipt of the notice or 18 months after the close of the three year period for filing Initiation Plans, whichever comes later, the new license(s) designated in the notice shall become primary to the modified license(s) designated in the notice. Prior to that time, the modified licenses would remain primary. As noted above, modified licenses shall not be eligible for renewal, irrespective of primary or secondary status, in order to assure finality regarding the transition.

302. We seek comment on this proposed notice process. Commenters are asked to discuss whether any special sanction should be imposed on secondary licensees that interfere with primary licensees and whether any sanction should be imposed on new licensees that do not commence new use within a year after filing the notice. Commenters proposing special sanctions for interference by secondary use should address the appropriate method for measuring the interference. Commenters proposing sanctions for new licensees not commencing new use should address when to evaluate the new use, the standards for such evaluation, and the most appropriate sanctions.

b. Bidding Offset Credits for Incumbents to Obtain Spectrum Licenses of Comparable Value

303. *Issuing Bidding Offset Credits.* In addition to modifying incumbent licenses as discussed above, we propose to issue existing licensees, including licensees for MDS channels 1 and 2/2A in the relevant MEAs, bidding offset credits that can be used to obtain new licenses in the 2496-2690 MHz band or auctioned licenses in any other spectrum band. We further propose that these bidding offset credits would be transferable to any other party, so that licensees would have the option of transferring them to others rather than being required to use them themselves. We seek comment on this proposal. As a threshold matter, we believe we have authority to issue the bidding offset credits. The Commission has authority to take actions necessary to execute its functions and to carry out the provisions of the Communications Act, not otherwise inconsistent with the Act. 47 U.S.C. §§ 154(i) and 303(r). The Commission's functions include management of the spectrum in the public interest, pursuant to Section 303 of the Act, and assignment of licenses to use spectrum in the public interest, pursuant to Section 309. Issuing bidding offset credits in order to protect existing spectrum uses – and past Commission public interest judgments reflected in prior licensing decisions – while clearing existing spectrum assignments is necessary to the management of spectrum in the public interest and not inconsistent with the Communications Act.

304. Effectively clearing prior spectrum assignments so that new licenses for this spectrum may be assigned by competitive bidding will promote statutory objectives.[602] Issuing bidding offset credits is within the Commission's statutory authority regarding the design of competitive bidding systems. Section 309(j)(4) of the Communications Act grants the Commission authority to consider a variety of methods of helping entities pay for licenses that are offered at auction, including alternative payment schedules, tax credits, and bidding preferences. The legislative history also indicates that Congress intended that Section 309(j)(4) would provide the Commission with "flexibility to utilize any combination

[602] *See* 47 U.S.C. § 309(j)(3).

of techniques that would serve the public interest."[603] Section 309(j)(4)(A) specifically authorizes the Commission to consider methods of payment that promote Section 309(j)(3)(B) statutory objectives of competitive bidding, which include disseminating licenses among a wide variety of applicants. Existing EBS and BRS licensees reflect in part the public interest in disseminating such licenses (particularly EBS licenses) to a wide variety of locally based licensees. Issuing bidding offset credits should ensure that such licensees can participate effectively in an auction of new licenses and thereby promotes that public interest.

305. We propose to quantify the bidding offset credits based on the bandwidth, measured in megahertz, of the incumbent's modified license multiplied by the population within the modified license's GSA. We refer to this unit of measurement as MHzPops. For licensees of MDS channels 1 and 2/2A, bidding offset credits would be based on the MHzPops of the licensee's original license. An incumbent holding a bidding offset credit for a certain amount of MHzPops could offset, *i.e.*, satisfy, some or all of a winning bid for a new license in the same service in this band covering the same population depending on the ratio between the bidding offset credit MHzPops and the new license's MHzPops. For example, suppose an incumbent held a modified EBS license for a single frequency block that entitled it to a 10 MHzPop bidding offset credit. Suppose further that a new EBS license for the same frequency block, *i.e.*, with the same bandwidth, as the incumbent's modified license covered the entire population within the incumbent's GSA as well as an equal amount of population outside the GSA, *i.e.*, reached twice the population with the same bandwidth. That new license could be measured as having 20 MHzPops. The ratio between the bidding offset credit and the new license, in terms of MHzPops, would be 1:2. Accordingly, the EBS incumbent could offset 1/2 of the winning bid, regardless of the dollar amount, for the new EBS license. Note that if the incumbent held modified licenses for two frequency blocks in the same area, it would double its bidding offset credit and have a 1:1 ratio between its bidding offset credit and the new license. Such an incumbent could offset, or satisfy, a winning bid of any amount for the new license. We propose that bidding offset credits be used in this manner only with respect to licenses in the same service, given the potential different market values of otherwise comparable spectrum, depending on the service to which it is allocated. Otherwise, licensees in one service could convert their licenses to the other service without taking into account the differences between the two. We seek comment on this proposal.

306. We further propose that incumbents be able to use their bidding offset credits to obtain spectrum licenses in new areas or different bands than those authorized by their original license. However, spectrum licenses in different areas or in different bands may differ so substantially that it would be inappropriate to offset winning bids for such spectrum licenses on a uniform MHzPops basis. Nevertheless, bidding offset credits could be used to offset winning bids for other spectrum licenses fairly and effectively if the bidding offset credit could be quantified in a generally applicable measurement of value, such as dollars, rather than MHzPops. We propose that we use an average price per MHzPops, derived from the auction for new licenses in this band, to give the bidding offset credit a face dollar value. Once given a face dollar value, bidding offset credits could be used to offset any winning bid for any Commission spectrum license, up to the face amount of the bidding offset credit.[604] In the event that we

[603] P.L. 103-66, Omnibus Budget Reconciliation Act of 1993, House Report No. 103-111, Report of the Committee on the Budget, House of Representatives, to Accompany H.R. 2264, A Bill to Provide for Reconciliation Pursuant to section 7 of the Concurrent Resolution of the Budget for Fiscal Year 1994, May 25, 1993, at p. 255.

[604] For example, if the modified license authorized exclusive use of frequencies equaling 10 megahertz in a GSA with a population of 10 million, the licensee would receive a bidding offset credit for 100 million MHzPops. Subsequently, presuming the appropriate average price per MHzPops of related new licenses is $2, the bidding offset credit would have a face value of $200 million (100 MHzPops * $2 per MHzPops). A party holding the bidding offset credit could use it to offset up to $200 million of winning bids for Commission spectrum licenses. (continued….)

issue bidding offset credits, we propose that the Wireless Telecommunications Bureau develop procedures to advise bidders of the current projected face dollar value of their bidding offset credits during the auction of licenses in this band based on winning bids in the most recent round, so that the bidding offset credits could be used for any license in the auction. We seek comment on these proposals.

307. We also seek comment on how to determine the appropriate average price per MHzPops for quantifying bidding offset credits. For example, should we account for the fact that the new licenses permit new uses of the spectrum and may reach other population and/or use different frequencies than the original license? If so, how? Should we calculate different averages for different incumbents depending on whether the spectrum being cleared by the incumbent in exchange for the bidding offset credit is in high-power, MBS or for the low-power, lower and upper band segments?

308. We seek comment on three potential methods for calculating the value of bidding offset credits under this proposal. First, we could average the prices per MHzPops for all the related new licenses, regardless of any differences between the new licenses, and multiply the bidding offset credit's MHzPops by that average price. Like the proponent-initiated transition process, which would grant each licensee equal shares of each new band segment, this method makes no distinction among different licensees that cover the same geographic area. However, as a consequence, this method also makes no distinction between the different values for the different types of new licenses. Second, recognizing that the original ITFS or MDS license only permitted high-power use of the spectrum, we could determine the face dollar value of the licensee's bidding offset credit by multiplying the bidding offset credit's MHzPops by the average price per MHzPops for related MBS licenses permitting similar high-power use. Third, recognizing that original licensees may need to acquire LBS/UBS licenses to retain current bandwidth and that prices for such licenses may exceed MBS prices, we could multiply the bidding offset credit's MHzPops by a weighted average of the average price per MHzPops for related MBS licenses and related LBS/UBS licenses. For example, we could weight the two equally (even though there is more than three times as much LBS/UBS spectrum) by taking the mean of the average price per MHzPops for related MBS licenses and the average price per MHzPops for LBS/UBS licenses. We seek comment on these and any other alternatives for determining the average price per MHzPops to use in calculating the face dollar value of bidding offset credits.

309. Regardless of how we take into account various factors discussed above, we propose to set average prices per MHzPops for bidding offset credits issued to EBS licensees using prices for new EBS licenses and average prices per MHzPops for bidding offset credits issued to BRS licensees using prices for new BRS licenses. In this way, we can take into account the effect of restricting the parties eligible to hold EBS licensees in setting the face dollar value of bidding offset credits and leave the parties holding the bidding offset credits free to use them as they see fit.

310. As discussed above, we believe that each new MBS license will cover an entire EA and each new license for the LBS and UBS will cover an entire MEA. Consequently, each new license will cover larger areas and different populations than the modified EBS and BRS licenses. The face dollar value of the bidding offset credit would be calculated using a uniform average price per MHzPops with respect to all population covered by the new license. Accordingly, the difference in population between the incumbent's modified license, which is the basis of the bidding offset credit's MHzPops, and the new license does not require altering the proposed process above for calculating the face dollar value of the bidding offset credit. However, EBS and BRS licenses may reach populations covered by more than one

(Continued from previous page)
For example, if the winning bid for a new license is $150 million, the bidding offset credit could be used to offset that winning bid in entirety, while retaining a remaining face value of $50 million.

new license geographic areas. In that event, to take into account the potential differences between the average prices per MHzPops in the different new license areas, the bidding offset credit issued to the licensee would be treated as two independent bidding offset credits, one in each new license area.[605] We seek comment on this approach.

311. *Dividing and Transferring Bidding Offset Credits.* We propose that bidding offset credits should be divisible, given that parties using the bidding offset credits may be interested in a variety of licenses and that bidding offset credits are unlikely to precisely equal future winning bids. In addition, parties receiving bidding offset credits may need flexibility regarding business plans to offer spectrum-based services. We believe that such parties should be free to transfer some or all of their bidding offset credits. Because the Commission will be able to evaluate whether any transferee holding a bidding offset credit is qualified to be a licensee at the time the Commission considers a license application, the public interest in the qualifications of licensees would not be implicated by a transfer of the bidding offset credit. Moreover, permitting existing EBS and BRS licensees to transfer their bidding offset credit in whole or in part could facilitate relocating existing facilities, thus serving the public interest in avoiding unnecessary disruptions to existing services. We seek comment on whether it would be appropriate to adopt a time limit for parties to make us of the bidding offset credit, to provide definition and certainty with respect to the continued viability of the bidding offset credit or for any other reason. Finally, we do not see any reason to propose limitations on the transfer or use of bidding offset credits held by EBS licensees. The face dollar value of the bidding offset credits issued to EBS licensees would be calculated using the average price per MHzPops of new EBS licenses. Accordingly, the face dollar value of the bidding offset credit will incorporate any effect restrictions on EBS licenses may have on the price for such licenses. Therefore, we do not propose to limit subsequent use of the bidding offset credit to EBS licensees or EBS licenses. In effect, EBS licensees that do not use their bidding offset credit to obtain a new EBS license have transferred their former spectrum assignment to a new EBS-qualified licensee and are then free to use the bidding offset credit they receive as best serves their needs. The public interest reflected in the restrictions on licensees eligible to hold EBS licenses is protected by limiting new EBS licenses to qualified licensees.

312. However, in order to prevent future disputes regarding the parties that are entitled to use a bidding offset credit, we propose to require that all parties to any transfer notify the Commission of any transfer, identifying all relevant parties, and waive any claims for relief that would require returning the bidding offset credit to the transferee. Such a waiver would not require that the parties waive any claims for relief other than returning the bidding offset credit, *e.g.*, claims for monetary damages. We seek comment on this procedure generally and in particular regarding whether additional protections are available and necessary to protect against any efforts to force returns of the bidding offset credit. Would it protect against subsequent attempts to avoid transfers in bankruptcy to require that the parties give advance notice of a transfer and only consummate the transfer after a waiting period? If so, how long should the waiting period be? Would a waiting period unnecessarily complicate transfers of bidding offset credits?

c. New Licenses and Relocation of Incumbents Opting not to Receive

[605] For example, if a modified 10 megahertz license reaches two million people in the area covered by one new license and eight million people in the area covered by a second new license, we will treat the bidding offset credit as having 20 million MHzPops with respect to the first new license and 80 million MHzPops with respect to the second. Assume the auction results in an average price per MHzPops of $1 for the first new license and $2 for the second. The bidding offset credit have a face dollar value of $180 million ((20 million MHzPops * $1/MHzPops) + (80 million MHzPops * $2/MHzPops)) = $20 million + $160 million = $180 million). Once the face dollar value is determined, no further distinction needs to be made between the two areas reached by the modified license.

Modified Licenses and Bidding Offset Credits

313. *Opt-outs*. Existing licensees that only want to continue current high-power operations solely in their limited PSA/GSA may not find new licenses suitable for such uses. For example, there may be no new license covering precisely the same geographic area as the existing license. Consequently, we propose offering such licensees an opportunity to retain their GSA rather than receive a bidding offset credit to obtain a new license. In such cases, the licensee's current license would be modified in the same manner as all other licensees being cleared. The modified license would grant the licensee primary status on the relevant spectrum until a new licensee gives proper notice of incompatible new uses. The modified license then would grant the licensee secondary status for the remainder of the license term. The modified license would not be renewable. In addition, an opt-out licensee would receive a new 6 megahertz primary license for operations in its current GSA on frequencies selected by the Commission at the core of the MBS. The new license would have the same geographic area as the modified license, would have primary status, and would be eligible for renewal. We seek comment on this proposal.

314. The new band plan provides only one six megahertz block for high-power operations in the MBS for each original license in the band. Consequently, in areas subject to an proponent's Initiation Plan, incumbent licensees are entitled to only one six megahertz block in the MBS. In areas not transitioned pursuant to an Initiation Plan, incumbents that opt-out of receiving bidding offset credits in order to continue high-power operations likewise will receive a six megahertz block in the MBS. In addition, such incumbents will have others pay for their relocation. The conversion to digital transmission may enable some licensees to continue offering the same services on six megahertz that they may have offered on twenty-four, presuming they were licensed on all four channels in a group, prior to the implementation of the new band plan. As discussed below, we propose that digital facilities capable of transmitting on six megahertz the same services previously transmitted on a larger amount of bandwidth using analog facilities be considered "comparable" to such analog facilities when determining the obligations of others to pay for the incumbent's relocation. Perhaps most importantly, in areas where bidding offset credits are made available, incumbent licensees that want additional bandwidth in the MBS for high-power operations will have the opportunity to obtain it at the auction of new licenses.

315. *Financing Relocation of Opt-Outs.* We propose that the cost of relocating current licensees that opt-out should be paid by the new licensees for whose licenses spectrum is made available by the relocation. Licensees choosing to receive new MBS licenses rather than bidding offset credits may incur significant costs to relocate to the new high-power MBS. Given the non-commercial nature of EBS licensees, licensees that opt to receive a six megahertz license rather than a bidding offset credit in order to assure continuation of existing services may have difficulty financing their relocation. BRS licensees choosing to receive a new MBS license rather than a bidding offset credit also may lack capital for relocation. If we adopt the proposal to auction new licenses without designating frequency blocks until after the auction, bidders for new licenses may not know when bidding whether their specific spectrum was occupied by the relocating licensee. Given that all bidders for new licenses that encompass the geographic area covered by the original license may win frequencies covered by the original license, we propose that in such circumstances all new licensees with licenses encompassing the geographic area covered by the original license be deemed to benefit from the relocation. In the event that we accept bids for new licenses for specific frequencies, the new licensees winning license for frequencies covered by the original license would benefit from relocation. We propose that relevant new licensees pay for the relocation of the original licensee pursuant to the procedure described below. We seek comment on this proposed procedure.

316. With respect to licensees who propose to opt-out of the bidding offset credit process and accept MBS spectrum, we propose delegating authority to the Wireless Telecommunications Bureau to

announce a date for such licensees to file a relocation plan. The date for filing shall be at least sixty (60) days prior to the start of any auction for new licenses in this band. In the filing, relocating licensees would provide a detailed proposal setting forth all actions reasonably required to relocate their current facilities or construct comparable new facilities consistent with the new MBS license. In light of the limited availability of MBS spectrum and the need for relocating licensees to make due with less bandwidth, we propose that digital transmission facilities capable of carrying the same number channels previously carried by the licensee on four analog channels be considered comparable to the analog transmission facilities. The proposal would itemize the cost of each action to be taken, and would document costs already incurred. We seek comment on this proposed approach.

317. We also propose that relocating licensees be able to relocate themselves and subsequently seek reimbursement from new licensees. Itemized costs related to relocation that the licensee incurs prior to the date of filing shall be deemed reasonably required. Itemized costs related to relocation that the licensee incurs after the date of filing that are less than or equal to the estimates provided in the filed relocation plan shall be deemed reasonably required but subject to review. Costs related to relocation that the licensee incurs after the date of filing that exceed the estimates provided in the filed plan shall be deemed not reasonably required and are not recoverable.

318. Further, we propose that new licensees holding licenses that encompass the geographic area of any relocated license would be required to certify to the Commission that they have taken reasonably required actions to relocate the affected licensee and that the relocated licensee has been reimbursed for all reasonably required relocation costs that it incurred. Such certifications would be required to detail all actions taken in this regard. Reimbursement would include any reasonably required costs subject to review, unless such costs were determined by binding arbitration to be not reasonably required as part of the relocation. We propose that if the Commission should find relocated licensees unreasonably refused to submit to binding arbitration, the relocating licensee would not be entitled to recover any costs subject to review. In the event that affected licensees do not relocate themselves, new licensees would be required to relocate them by taking the actions set forth in the filed relocation plan, paying the cost of such relocation up to one hundred and twenty percent (120%) of the estimate provided in the plan. No new licensee would have any obligation to relocate the affected licensee or pay any relocation costs to the relocated licensee once any responsible new licensee certifies that it has paid reasonably required relocation costs of one hundred and twenty percent (120%) of the estimate provided in the plan.

319. Absent the required certification, we propose that any notice of intent to commence new operations pursuant to the license that may conflict with existing uses would be deemed null and void, regardless of whether it is inadvertently listed on any Public Notice listing notices received by the Commission. In the event the Commission subsequently found that any filed certification is inaccurate, we propose that the new licensee on whose behalf the certification was made would be held responsible for all reasonably required costs incurred in the process of relocation irrespective of the estimates in the filed relocation plan, including the costs of any party arising from the inaccurate certification. Under this proposal, such a new licensee would not be entitled to recover any amounts it pays from any other new licensee responsible for relocation costs. With the exception of any responsible new licensee that files an inaccurate certification regarding relocation, we propose that any responsible new licensee paying more than the fraction of the recoverable relocation costs equal to the new licensee's fraction of bandwidth made available in the area in the auction would be entitled to recover excess amounts from any other responsible new licensee that has not previously paid its own fractional share.

B. Performance Requirements

320. *Background.* In the *NPRM*, we sought comment on what performance requirements should be applicable to MDS BTA authorization holders and site-based MDS and ITFS licensees.[606] Given our decisions to adopt geographic area licensing for these services,[607] and to eliminate forfeiture, cancellation, and discontinuance of service rules for certain BRS and EBS licensees,[608] we conclude that it is necessary to review performance requirements for these services as well. Because these standards exist in order to encourage licensees to build out wireless facilities, we sought comment specifically on whether the existing benchmarks were adequate or whether these standards actually frustrated licensees' abilities to deploy service quickly and efficiently.[609] As noted in the *NPRM*, the Commission has been willing to entertain "substantial service" as a flexible, alternative approach that fulfills our goal of promoting innovation and development by maximizing flexibility in the service rules.[610] Many commenters favor this standard, offering that a substantial service approach is a better alternative to current static build-out requirements, which follow fixed time-schedules.[611] We also sought comment in the *NPRM* as to the appropriate method for conducting a substantial service analysis, including what factors a licensee may use to demonstrate substantial service including "safe harbors".[612]

321. The Commission seeks to prescribe performance requirements that serve "to ensure prompt delivery of service to rural areas, to prevent stockpiling or warehousing of spectrum by licensees or permittees, and to promote investment in and rapid deployment of new technologies and services."[613] Additionally, we seek to promote the availability of broadband to all Americans, including broadband technologies for educators, and to encourage the highest valued use of radio licenses and promote the economic viability of services in this band by ensuring that the spectrum is as fungible, tradable, and marketable as possible. Thus, in order to accomplish these goals, we believe a market-oriented approach to spectrum policy best ensures the build-out of wireless facilities and broader provision of wireless

606 *NPRM*, 18 FCC Rcd at 6799-6804 ¶¶ 190-198.

607 *See* Section *IV.A.4*, *supra*.

608 See Section IV.D.11, *supra*.

609 *See NPRM,* 18 FCC Rcd at 6799 ¶ 190.

610 *See NPRM,* 18 FCC Rcd at 6800 ¶ 191. *See also*, Amendments to Parts 1, 2, 87 and 101 of the Commission's Rules To License Fixed Services at 24 GHz, *Report and Order*, 15 FCC Rcd 16934, 16951 ¶ 37 (2000) (*24 GHz Report and Order*) ("Based on the record in this proceeding, we believe that the substantial service standard, in lieu of specific coverage requirements best serves the public interest. In addition to being consistent with the approach used in other wireless services, we believe that this standard is sufficiently flexible to foster expeditious development and deployment of systems and will ultimately create competition among service providers in this band.").

611 *See NPRM,* 18 FCC Rcd at 6802 ¶ 193. The most important construction requirements currently applicable to MDS BTA authorization holders are that such licensee has a five-year build-out period, beginning on the date of the grant of authorization, and in that time the licensee must construct stations that will provide service signals to at least two-thirds of the population of the applicable service area. *See generally* 47 C.F.R. § 21.930. Site-based MDS licensees must construct their facilities within twelve months of the date of their grant. *See* 47 C.F.R. § 21.43. Site-based ITFS licensees must construct their facilities within eighteen months of following the issuance of their construction permit. *See* 47 C.F.R. § 73.3534.

612 *See NPRM,* 18 FCC Rcd at 6800, 6802-03 ¶¶ 191, 193-97.

613 47 USC §309(j)(4)(B).

services.[614] We believe that economic forces will guide competing providers to innovate and broaden deployment of services. To this end, we aim to provide licensees greater flexibility "to tailor the use of their spectrum to unique business plans and needs."[615] We believe that establishing more flexible rules will result in ubiquitous, high-quality service to the public and at the same time encourage investment by increasing the value of licenses. We believe more flexible rules will make licensees more economically viable and will provide incumbents with reasonable opportunities to continue their current uses of the spectrum. We believe flexible rules will also facilitate speedier transition and deployment in the band. For the reasons discussed herein, we tentatively conclude that performance requirements based on the substantial service standard set forth in Part 27 of our Rules[616] will provide the strongest incentives to licensees to develop and deploy new services. We seek comment on specific safe harbors that will satisfy the substantial service requirements tentatively adopted for BRS and EBS services.

322. "'Substantial' service is defined in Part 27 of our Rules as service which is sound, favorable, and substantially above a level of mediocre service which just might minimally warrant renewal."[617] The Commission has implemented substantial service requirements for other wireless services.[618] Among our goals, we seek to clarify and stabilize the regulatory treatment of similar spectrum-based services. Thus, we believe that adopting substantial service performance requirements for BRS and EBS services will create regulatory parity between these services and other wireless services.[619] And "[w]hile the definition of substantial service is generally consistent among wireless services, the factors that the Commission will consider when determining if a license has met the standard vary among services."[620] We believe that within a substantial service framework, refined measures may be adopted to suit any challenges that BRS and EBS licensees face in development and deployment. Our decision to shift to geographic area licensing for BRS and EBS services is in part based on the need to provide flexibility to licensees so as to encourage efficient use of the fullest capacity of allotted spectrum.[621] We believe that implementing substantial service performance requirements will also promote flexibility and

[614] *See* Facilitating the Provision of Spectrum-Based Services to Rural Areas and Promoting Opportunities for Rural Telephone Companies to Provide Spectrum-Based Services, *Notice of Proposed Rulemaking*, 18 FCC Rcd 20802, 20819 ¶ 34 (2003) (*Rural NPRM*).

[615] *See Rural NPRM,* 18 FCC Rcd at 20819 ¶ 34.

[616] *See* 47 C.F.R. § 27.14(a) (2004).

[617] 47 C.F.R. § 27.14(a).

[618] *See, e.g., Rural NPRM,* 18 FCC Rcd at 20819 ¶ 34 ("In more recently adopted rules for wireless services, such as our Part 27 rules for private services, Lower and Upper 700 MHz, 39 GHz, and 24 GHz, the Commission established the substantial service standard as the only construction requirement."). *See also* Coalition Proposal at 44. ("There is ample precedent for [a substantial service] approach as the Commission has adopted this very same requirement for operate at 2.3 GHz, the Upper 700 MHz band, the Lower 700 MHz band, the paired 1392-1395 MHz and 1432-1435 MHz bands or the unpaired 1390-1392 MHz, 1670-1675 MHz and 2385-2390 MHz bands.").

[619] *See also Rural NPRM,* 18 FCC Rcd at 20821-22 ¶ 37-38. *See also 24 GHz Report and Order, supra* note 5, at 16951 ¶ 37.

[620] *See Rural NPRM,* 18 FCC Rcd at 20819 ¶ 32. "For example, in some wireless services, the Commission indicated that licensees providing niche, specialized, or technologically sophisticated services may be considered to be providing 'substantial service.' In other services, the Commission has indicated that licensees providing an offering that does not cover large geographic areas or population…, but nonetheless provides a benefit to consumers, also may meet the standard." *Id.* at n.75 (citations omitted).

[621] *See* Section IV.A.4 *supra*.

thus allow licensees to provide quality, widespread services to the public.

323. We believe that construction benchmarks focusing solely on population served or geography covered do not necessarily reflect the most important underlying goal of ensuring public access to quality, widespread service.[622] For example, such requirements alone do not take into account qualitative factors important to end-users and the market such as reliability of service, and the availability of technologically sophisticated premium services.[623] While it may be argued that market forces ensure a requisite level of quality in the services reaching consumers, this is not always the case. We seek input on factors that can be used as indicia to satisfy safe harbors under substantial service.

324. We further believe that fixed, inflexible construction requirements hinder widespread deployment of wireless services and do not always reflect elements of service such as cost or, more importantly, populations served. At the least, in some instances, fixed construction requirements do not easily permit the Commission to measure the deployment of service by a licensee.[624] As we have noted, merely satisfying such benchmarks does not necessarily demonstrate adequate deployment in rural areas, to niche markets, or to discrete populations or regions with special needs.[625] We believe that a standard based on substantial service is better able to respond to these various concerns. We agree with commenters and believe that a shift towards a substantial service standard will help encourage licensees to provide the best possible service and avoid "construction…solely to meet regulatory requirements rather than market conditions."[626]

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[622] *See NPRM,* 18 FCC Rcd at 6803 ¶ 195 ("[F]ocusing solely on the population served via stations authorized pursuant to a particular license hardly tells the story as to whether the licensee is providing adequate service to the public."). *See also Rural NPRM,* 18 FCC Rcd at 20820 ¶ 35 ("[G]iven the unique characteristics and considerations inherent in constructing within rural areas, we believe that applying an inflexible construction standard that is based upon coverage of a requisite percentage of an area's population may be an inappropriate measure of levels of rural construction.").

[623] *See, e.g.*, Nextel Reply Comments at 15-16 ("[A] substantial service standard will provide licensees greater flexibility to determine how best to implement their business plans based on criteria demonstrating actual service to end users, rather than on a showing of whether a licensee passes a certain portion of the relevant population."). *See also*, Amendment of Parts 2 and 90 of the Commission's Rules to Provide for the Use of 200 Channels Outside the Designated Filing Areas in the 896-901 MHz and the 935-940 MHz Bands Allotted to the Specialized Mobile Radio Pool, *Second Report and Order*, 10 FCC Rcd 6884 ¶ 41 (1995) (*900 MHz Second Report and Order*) ("We also conclude that a showing of "substantial service" is appropriate for 900 MHz because several current offerings in this band are cutting-edge niche services.").

[624] The Commission has recognized that because certain types of services and technologies do not lend themselves to compliance with strict construction requirements, they are better gauged based upon a substantial service requirement. For example, fixed, point-to-point operations provide service in a linear manner, making a coverage area calculation inapplicable. *See, e.g.*, Amendment of Part 90 of the Commission's Rules To Provide for the Use of the 220-222 MHz Band by the Private Land Mobile Radio Service, *Third Report and Order*, 12 FCC Rcd 10943 ¶ 156 (1997).

[625] *See Rural NPRM,* 18 FCC Rcd at 20820 ¶ 35; *see also* Coalition Proposal at 45.

[626] SBC asserts that construction requirements "likely would result in the construction of facilities solely to meet regulatory requirements rather than market conditions," possibly causing facilities to be "constructed inefficiently, and guided more by regulatory necessity than the need to provide least-cost service to consumers." *See* SBC Reply Comments at 11. SBC says the consequence would be unnecessarily high rates. *See* SBC Reply Comments at 11. Finally, SBC argues that fixed construction benchmarks would be inconsistent with the pro-competitive policies of the Act, handicapping new entrants into the broadband services market. *See* SBC Reply Comments at 11. We (continued….)

325. The Coalition argues that substantial service standards would allow the Commission to evaluate a licensee's entire system of stations, rather than each station's service standing alone.[627] This is important and relatively unique in the context of MDS and ITFS service, according to the Coalition, because MDS and ITFS providers, unlike those providing most other services, will use channels combined from a variety of sources.[628] Thus, the Coalition asks us to "recognize that in some cases a licensee may not use particular spectrum covered by one license, or certain channels authorized by a license, that is part of a larger operating system" because the licensee is using the spectrum in some other way still critical to the system's overall design.[629] In other words, a system otherwise providing substantial service may yet necessitate limited cases of what appears to be warehousing.[630] The Coalition also argues that system operators may not build out some spectrum so that it can be held for future uses demanded by the market.[631] Finally, the Coalition and other commenters argue that licensees may focus portions of their service to particular constituents rather than the general population of the GSA.[632] For these many reasons, the Coalition not only supports substantial service requirements over fixed benchmarks, but recommends that Commission evaluations under this standard proceed case-by-case, looking at the overall service of one parent provider/licensee as opposed to the adequacy of service within a single service area.[633] We see merit in at least some of these arguments; however, we do not plan to proceed on a case-by-case basis in determining whether substantial service has been met. Rather, as discussed below, we instead seek comment on specific safe harbors that will meet the proposed substantial service standard for BRS and EBS services.

326. Many commenters favor a substantial service standard for geographically-licensed MDS and ITFS operators. Sprint agrees with the Coalition that a substantial service performance standard will best suit the MDS/ITFS regulatory scheme, "particularly as the centerpiece to this model is likely to be flexible use within a geographic area."[634] Likewise, BellSouth "wholeheartedly" supports this standard and takes the position that alternative standards proposed by a few commenters "would not solve the

(Continued from previous page)
acknowledge that one of our goals is to encourage competition in wireless broadband by creating new opportunities for new entrants. Thus, SBC supports a substantial service standard for these primary reasons. *See* SBC Reply Comments at 12.

[627] *NPRM,* 18 FCC Rcd at 6803 ¶ 195; *see also* Coalition Proposal at 45.

[628] *See NPRM,* 18 FCC Rcd at 6803 ¶ 195 (citing Coalition Proposal at 35, "MDS/ITFS may pull spectrum from "their own BTA authorized stations, incumbent MDS stations they own, and leased capacity of MDS and ITFS stations licensed to others.")

[629] *NPRM,* 18 FCC Rcd at 6803 ¶ 195; *see* Coalition Proposal at 45.

[630] IPWireless is in apparent agreement with the Coalition that some spectrum could permissibly be used as guard band and still be considered a valid part of a licensee's commercial service. *See* IPWireless Reply Comments at 7; *see also* Sprint Comments at 17. However, the IPWireless response cautions some qualification: "Spectrum used to provide any guard bands necessary to conform to the rules, consistent with sound engineering practices, should be counted as having been placed in commercial service. [However, t]he term 'commercial service' should be limited to direct links between a carrier's network and one or more end users/subscribers." IPWireless Reply Comments at 7.

[631] *NPRM,* 18 FCC Rcd at 6803 ¶ 196; *see* Coalition Proposal at 46.

[632] *Id.*

[633] *Id.* at 6803 ¶ 197; *see* Coalition Proposal at 46.

[634] *See* Sprint Comments at 16.

problems associated with the existing patchwork of rules."[635] EarthLink, Rural Commenters, AHMLC, and HITN, among other commenters, also support a substantial service standard.[636]

327. Not all commenters, however, appear to support a substantial service performance requirement. We note that NTCA supports construction benchmarks, particularly for those larger carriers obtaining licenses for large geographic areas.[637] IPWireless agrees and recommends "stringent construction and operation requirements" to prevent warehousing of spectrum by MMDS and ITFS licensees.[638] To that effect, IPWireless suggests the following fixed benchmarks: MMDS licensees and other operators leasing MMDS spectrum should be required to provide commercial service to at least one community within 36 months, and should build and operate a system capable of serving 1/3 of the GSA population within 48 months and 2/3 of the population within 60 months.[639]

328. We recognize the importance of fixed benchmarks and timetables as incentives to quickly deploy service and avoid spectrum warehousing. We suggest, however, that benchmarks may yet be assimilated into the substantial service framework as safe harbors, rather than as goals unto themselves. We invited comment in the *NPRM* regarding whether we should adopt 'safe harbors' to complement the proposed substantial service approach.[640] Most commenters responded positively regarding the substantial service approach proposed in the *NPRM*. Responses regarding safe harbors were similarly favorable, but were vague. We now seek comment on specific safe harbors that will meet the substantial service standard we have tentatively adopted for BRS and EBS services. For example, we seek comment on whether construction requirements such as those proposed by IPWireless above would be suitable as a safe harbor to meet the substantial service standard. We seek comment on what other specific safe harbors – in addition to or apart from these – may be appropriate. Finally, we seek comment on whether licensees' existing benchmarks, if met, should be available methods of demonstrating substantial service.[641]

329. Finally, rural build out remains an important concern to us. We recognize that, "as a

[635] *See* BellSouth Reply Comments at 22.

[636] *See* EarthLink Comments at 8-9; *see* Rural Commenters Reply Comments at 3; *see* AHMLC Comments at 24; *see* HITN Comments at 8 n..8.

[637] *See* NTCA Comments at 7. Many commenters are concerned that stringent construction requirements put small carriers at greater disadvantage, especially as such benchmarks regard rural service. *See, e.g.,* NTCA Comments at 7.

[638] *See* IPWireless Reply Comments at 6.

[639] IPWireless Reply Comments at 6. IPWireless notes that "[t]he proposed requirements are generally based upon those already existing in other services, including broadband Personal Communications Service (47 CFR §24.203 "Construction requirements") and the Cellular Radiotelephone Service (47 CFR §22.947 "Five year build-out period")." IPWireless Reply Comments at n.9.

[640] *NPRM,* 18 FCC Rcd at 6801 ¶ 191. We also sought comment on safe harbors in the *Rural NPRM*, another proceeding that affects MDS and ITFS licensees as well as other service-specific licensees. *See Rural NPRM,* 18 FCC Rcd at 20824 ¶ 41.

[641] *See* n.611, *supra*. *See also* 47 C.F.R. § 27.930 (MDS BTA authorization holders), 47 C.F.R. § 21.43 (site-based MDS licensees), 47 C.F.R. § 73.3534 (site-based ITFS licensees). *See also Rural NPRM,* 18 FCC Rcd at 20824 ¶ 41 ("We note that these proposed 'safe harbors' are intended to provide licensees with a measure of certainty in determining whether they are providing substantial service, but are not intended to be the only means of demonstrating substantial service. Accordingly, a licensee may still satisfy a 'substantial service' standard without complying with one of the safe harbors.").

result of varying technical and demographics, the economics of providing service can be significantly different in rural areas as compared to urban areas."[642] With respect to rural areas, we recognize that "market characteristics, especially demographics, will affect the optimal market structure."[643] Various commenters echo these concerns.[644] In the *NPRM* we sought comment on ways in which our construction benchmarks could be modified to better promote service to rural areas.[645]

330. We seek comment on whether there should be rural-specific safe harbors within the substantial service framework to encourage rural build out. For example, in the Rural *NPRM*, we suggested two safe harbors for rural service.[646] The first, available to licensees providing mobile wireless services, proposed that licensees "will be deemed to have met the substantial service requirement if it provides coverage, through construction or lease, to at least 75 percent of the geographic area of at least 20 percent of the 'rural' counties within its licensed area."[647] For fixed services, we proposed a safe harbor that would consider a licensee to have met the substantial service requirement if the licensee, "through construction or lease, constructs at least one end of a permanent link in at least 20 percent of the 'rural' counties within its licensed area."[648] We seek comment on whether meeting these requirements would be appropriate methods for rural carriers to satisfy safe harbors and satisfy the substantial service standard.

331. Grand Wireless proposes the following fixed construction benchmarks: licensees should be required to cover 30 percent of their rural area population within two years, 50 percent within four years, 70 percent within six years, and 80 percent within eight years.[649] We seek comment, however, on the fitness of these requirements as one way to satisfy a safe harbor, as opposed to using these percentages as fixed construction benchmarks. We seek comment on rural-specific safe harbors.

332. In the *NPRM*, we sought comment on how to define a rural service area.[650] We now note that this issue is taken up in the *Rural NPRM*, where it was noted that various definitions of "rural" have been utilized by federal agencies generally and the Commission specifically.[651] While the Communications Act directs the Commission to promote the development and deployment of services to rural areas, the Act did not provide a specific definition of rural areas.[652] We have not previously clarified and adopted a definition for rural area, but have rather allowed the term to vary "depending on the particular regulatory initiative at issue."[653] We seek additional comment on the following definitions of

[642] *Rural NPRM,* 18 FCC Rcd at 20807 ¶ 7.

[643] *Id.*

[644] *See* NTCA Comments at 7, Grand Wireless Commments at 13- 14, IP Wireless Comments at 23, Pace Comments at 1, 9.

[645] *See NPRM,* 18 FCC Rcd at 6803-04 ¶ 198.

[646] *See Rural NPRM,* 18 FCC Rcd at 20824 ¶ 41; *see also* n. 640 *supra.*

[647] *Rural NPRM,* 18 FCC Rcd at 20824 ¶ 41.

[648] *Id.*

[649] *See* Grand Wireless Comments at 14.

[650] *See NPRM,* 18 FCC Rcd at 6804 ¶ 198.

[651] *See Rural NPRM,* 18 FCC Rcd at 20808 ¶ 10.

[652] *See generally*, 47 U.S.C. §§ 151, 309(j)(3)-(4).

[653] *Rural NPRM,* 18 FCC Rcd at 20808 ¶ 10.

rural area proposed in the *Rural NPRM*: (1) counties with a population density of 100 persons or fewer per square mile; (2) RSAs; (3) non-nodal counties within an EA; (4) the definition for "rural" used by the RUS for its broadband program; (5) the definition for "rural area" used by the Commission in connection with universal service support for schools, libraries, and rural health care providers; (6) the definition of "rural" based on census tracts as outlined by the Economics Research Service of the USDA; (7) the Census Bureau definition of "rural" counties; and (8) any census tract that is not within ten miles of any incorporated or census-designated place containing more than 2,500 people, and its not within a county or county equivalent which has an overall population density of more than 500 persons per square mile of land.[654]

C. Grandfathered E and F Channel ITFS Stations

333. In 1983, the Commission redesignated the E and F Group ITFS channels from the ITFS service to MDS usage.[655] The Commission took this action in an effort to spur the development of MDS to promote effective and intense utilization of the spectrum leading to its highest valued use.[656] As part of its decision, the Commission grandfathered ITFS licensees operating on the E Group and F Group channels subject to the following limitations:

> Grandfathered ITFS stations operating on the E and F channels will only be protected to the extent of their service that is either in the operation or the application stage as of May 26, 1983. These licensees or applicants will not generally be permitted to change transmitter location or antenna height, or to change transmission power. In addition, any new receive stations added after May 26, 1983 will not be protected against interference from MDS transmissions. In this fashion, all facets of grandfathered ITFS operations were frozen as of May 26, 1983.[657]

The Commission stated that "there may be instances where the natural evolution of an ITFS station may reasonably require the addition of receive stations without changing the nature or the scope of the ITFS operation" that would justify the addition of additional receive sites.[658] In those instances, the Commission stated that the grandfathered ITFS licensee could request a waiver of Section 74.902(c).[659] Our rules provide that "in those areas where Multipoint Distribution Service use of these channels is

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[654] *See Rural NPRM,* 18 FCC Rcd at 20808 ¶ 10. Note that for this proceeding, we take the same position held in the *Rural NPRM* that any definition of "rural area" that is adopted for the purposes of the current proceeding will not affect the definition of rural in other contexts. *See id.* at 20808 nn.24, 41.

[655] *See* In the Matter of Amendment of Parts 2, 21, 74 and 94 of the Commission's Rules and Regulations in regard to frequency allocation to the Instructional Television Fixed Service, the Multipoint Distribution Service, and the Private Operational Fixed Microwave Service, GN Docket No. 80-112, CC Docket No. 80-116, *Report and Order*, 94 FCC 2d 1203 (1983) (*E and F Group Reallocation Order*).

[656] *Id.* at 1228-29 ¶¶ 61-63.

[657] *See* In the Matter of Amendment of Parts 2, 21, 74 and 94 of the Commission's Rules and Regulations in regard to frequency allocation to the Instructional Television Fixed Service, the Multipoint Distribution Service, and the Private Operational Fixed Microwave Service, GN Docket No. 80-112, CC Docket No. 80-116, *Memorandum Opinion and Order on Reconsideration*, 98 FCC 2d 129, 132-33 ¶ 12 (1983) (*E and F Group Reallocation Reconsideration Order*). *See also* 47 C.F.R. § 74.902(c).

[658] *See E and F Group Reallocation Reconsideration Order,* 98 FCC 2d at 132-33 ¶ 12 nn. 7, 8.

[659] *Id*.

allowed, Instructional Television Fixed Service users of these channels will continue to be afforded protection from harmful co-channel and adjacent channel interference from Multipoint Distribution Service stations."[660]

334. Commenters in the present proceeding raised the issue of the proper future treatment of grandfathered E and F group ITFS licensees.[661] Grand Alliance argues that the Commission must be fair in establishing the rights of grandfathered MDS licensees on the E and F group channels pending the resolution of overlapping service areas with other MDS licensees, protecting any co-channel pre-1983 ITFS receive sites.[662] Grand Alliance asserts that co-channel licensees should not be afforded new rights protecting new receive sites, or, as suggested by the Coalition, have any technical or other restrictions on their grandfathered operations lifted.[663] Grand Alliance reasons that other conclusions would be inconsistent with the Commission's stated intent in the original orders reallocating the E and F channels to MDS and "freezing" incumbent ITFS operations on those channels.[664]

335. In response, the Department of Education, Archdiocese of New York (DOEANY) states that Grand Alliance's argument effectively ignores the Commission's determination extending protected service areas to all ITFS licensees, including E and F Group licensees, embodied in Section 74.903(d) of the Commission's Rules, which states that ITFS licensees "must be protected from harmful electrical interference at each of [their] receive sites registered previously as of September 17, 1998, and within a PSA."[665] Stanford, Northeastern University, and the Diocese of Brooklyn further argue that Grand Alliance's proposal expands the rights of E/F Channel MDS licensees and revokes existing spectrum rights of grandfathered E/F Channel ITFS stations.[666] Region 10 argues that registered grandfathered receive sites should always be protected, including those outside current PSA boundaries.[667]

336. If grandfathered E and F Group ITFS licensees are not permitted to modify their equipment and MDS licensees must continue operating on a secondary basis, grandfathered E and F Group ITFS licensees will cause interference to low-power MDS co-channel licensees in some markets. Put another way, if MDS licensees that are on co-channel frequencies with grandfathered E and F Group ITFS licensees must avoid interfering with these frozen licensees, then the deployment of MDS broadband services may be hindered. Additionally, the grandfathered E and F Group ITFS licensees will never be able to transition to a low-power cellularized broadband system due to the restriction on modifying their equipment, which is presently contained in our rules.

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[660] 47 C.F.R. § 74.902(c).

[661] See Grand Alliance Comments, DOEANY Reply Comments, Stanford & Northeastern Reply Comments, Brooklyn Reply Comments, and Coalition Reply Comments at 93-96.

[662] *See* Grand Alliance Comments at 9.

[663] *See* Grand Alliance Comments at 9

[664] *See* Grand Alliance Comments at 9-10.

[665] *See* DOEANY Reply Comments at 1. Stanford, Northeastern University, and the Diocese of Brooklyn argue that Grand Alliance's proposal expands the rights of E/F Channel MDS licensees and revokes existing spectrum rights of grandfathered E/F Channel ITFS stations. *See* Stanford, Northeastern and Brooklyn Reply Comments at 5-6.

[666] *See* Stanford, Northeastern and Brooklyn Reply Comments at 5-6.

[667] Region 10 Comments at 9; *see NPRM* at 6758-59 ¶ 88.

337. We seek comment on how to modify our rules concerning grandfathered E and F channel ITFS stations in order to equitably allow both MDS and ITFS stations to provide advanced broadband wireless services. We ask whether it makes sense to adopt different approaches to different scenarios, rather then a one size fits all approach.

338. The first scenario that we envision is where the PSA of the grandfathered E and F Group ITFS licensee almost entirely overlaps the PSA of the co-channel MDS licensee. In this scenario, we seek comment on whether in keeping with the intent and spirit of the Commission's 1983 *E and F Group Reallocation Order* to free up spectrum for MDS,[668] we should require grandfathered E and F Group ITFS licensees to operate on a secondary non-interference basis to the co-channel MDS licensee. In the *E and F Group Reallocation Order*, the Commission stated that the two major public interest arguments favoring the authorization of multichannel MDS are efficiency and flexibility,[669] which are goals in the present proceeding in achieving the availability of new broadband technologies to all Americans as quickly as possible. If the grandfathered E and F Group ITFS licensees are to operate on a secondary non-interference basis to the co-channel MDS licensees we seek comment on whether the MDS licensees should bear the cost of relocating and/or coming to some other mutual arrangement with the grandfathered ITFS licensees that will adequately address the grandfathered ITFS licensees' concerns about being able to continue their operations.

339. Alternatively, we seek comment on allowing grandfathered E and F Group ITFS licensees to modify their equipment and be given a GSA, while the co-channel MDS operators would have to operate on a secondary non-interference basis. The *E and F Group Reallocation Order* seems to suggest that the Commission's intent in 1983 was to grandfather the E and F Group ITFS licensees forever. The Commission stated that "[e]xisting ITFS licensees (as well as existing permittees and applicants that eventually become licensees) of the reallocated channels would be grandfathered in perpetuity."[670]

340. A third approach would be to rely on voluntary negotiations between the parties. The Commission stated in 1983 that "[it] expect[s] that the MDS permittees and the ITFS users of the reallocated channels will negotiate in good faith to mutually accommodate each others' communications requirements."[671] Given the lack of progress in some markets between co-channel MDS licensee and grandfathered E and F Group ITFS licensee, we question whether continued reliance on negotiations would be appropriate. Nevertheless, we seek comment on whether there are changes we could make to our rules that could make negotiations more effective.

341. The second scenario we envision is where the PSAs of the grandfathered E and F Group ITFS licensees overlap to some extent, but not as much as the in scenario one. We seek comment on whether, in that situation, we should adopt the same "splitting the football" mechanism we are using to separate other overlapping PSAs.[672] If we adopted that approach, co-channel MDS licensees and grandfathered E and F Group ITFS licensees would draw a boundary line through a "football" shaped area where the PSAs intersect, with each licensee agreeing to limit the interference it generates across the

[668] *See E and F Group Reallocation Order,* 94 FCC 2d at 1228-29 ¶¶ 61 - 63.

[669] *Id.*

[670] *See id.* at 1247-8 ¶ 110.

[671] *See id.* at 1247-8 ¶ 110

[672] *See* discussion of splitting of the football and geographic area licensing in general at Section IV.A.4.b, *supra.*

boundary and getting a GSA based on its prior PSA. We seek comment on whether this same approach makes sense in the co-channel BRS and grandfathered E and F Group ITFS licensee scenario as well. We also seek comment on the maximum amount of overlap under which the "splitting the football" approach would be practical.

342. We also seek comment on whether, as suggested by DOEANY and Region 10, we should continue to afford protection to grandfathered ITFS E and F group receive sites that fall outside the new GSAs. We note that in other contexts, we have declined to protect receive sites outside GSAs. We seek comment on whether there is any reason to treat grandfathered E and F channel ITFS stations differently.

343. Finally, the third and last scenario we envision is that where the grandfathered E and F Group ITFS licensee remains frozen, unable to modify its system, and there is no co-channel MDS licensee. We seek comment on allowing the grandfathered E and F Group ITFS licensee to modify and to assign their facilities where there is no co-channel MDS licensee. We believe that allowing such freedom may facilitate innovative new educational broadband service offerings.

D. Limitation on Channel Assignments for EBS Licensees

344. Section 74.902(d)(1) of the Commission's Rules (the Four-Channel Rule) limits a licensee "to the assignment of no more than four channels for use in a single area of operation, all of which should be selected from the same [channel] Group . . . ."[673] The rules prohibit applicants from reserving additional channels by applying for more channels than they intend to construct within a reasonable time, simply for the purpose of reserving additional channels.[674] Rather, the number of channels authorized to an applicant must be based on the demonstration that the licensee needs the number of channels requested.[675] In making such an assessment, the Commission considers such factors as the amount of use of any currently assigned channels and the amount or proposed use of each channel requested, the amount of, and justification for, any repetition in the schedules, and the overall demand and availability of ITFS channels in the community.[676]

345. We note that the transition plan we have adopted today contemplates situations that would be inconsistent with continued application of the four-channel rule. For example, an ITFS licensee that wished to continue high-power operations using four channels in the MBS could receive the high-power channel in four different channel groups, which under our current rules would be prohibited. Because the record demonstrates a significant level of support for the Coalition's transition plan, including the ability to "swap" channels with other licensees in the same geographic region, we believe that the record supports our decision not to apply the four-channel rule in those areas that have transitioned. No party argued that the Coalition's transition plan was inappropriate because it would require changes to the four-channel rule. Accordingly, we conclude that the four-channel rule does not apply in those MEAs that have transitioned.

346. We seek comment on eliminating the four-channel rule in markets that have not yet transitioned. The purpose of the four-channel rule has been "to provide as many educators as possible with

[673] 47 C.F.R. § 74.902(d)(1) (1993).

[674] *Id.*

[675] *Id.*

[676] *Id.*

the opportunity to operate ITFS systems that meet their educational needs."[677] At the time the four-channel rule was established, ITFS was limited to video broadcast uses. Given the wider range of services that ITFS can now be used for and the changes to our leasing rules, it appears that the four-channel rule may unduly limit the ability of educational institutions and organizations to take full advantage of the potential of ITFS. We are also concerned that the four-channel rule may require that spectrum lay fallow when an educator wishes to use the spectrum. Furthermore, in those markets where all ITFS spectrum is assigned, the four-channel rule may artificially limit the ability to assign spectrum to educators who are in a better position than the existing licensee to utilize the spectrum. Commenters supporting retention of the four-channel rule should explain why they believe the rule is appropriate and necessary given the current market and regulatory conditions.

E. Wireless Cable Exception to EBS Eligibility Restrictions

347. In 1990, the Commission initiated a proceeding to review and simplify disparate technical, procedural, ownership and other requirements and restrictions in the three microwave radio services used in the provision of wireless cable service – MDS, ITFS, and OFS.[678] By affording wireless cable operators a more accommodating regulatory framework, the Commission aimed to enhance the potential of wireless cable as a competitive force in the multichannel video distribution marketplace. At the same time, the Commission wished to ensure that ITFS continued to be a useful tool for providing educational opportunities.[679]

348. As part of the Commission's effort to enhance the potential of wireless cable as a competitive force in the multichannel video distribution marketplace, the Commission proposed to allow wireless cable entities to be licensed on vacant ITFS channels under certain circumstances. On October 25, 1991, the Commission adopted a proposal to permit use of available ITFS channels by wireless cable entities.[680] This proposal was implemented in the *Second Report and Order* as Section 74.990 of the Commission's Rules. In order to ensure that wireless cable use did not have a negative impact upon ITFS, the Commission established a series of requirements that must be met before ITFS channels could be used for wireless cable use.[681] In order for commercial operators to take advantage of ITFS frequencies, at least

[677] Amendment of Part 74 of the Commission's Rules with Regard to the Instructional Television Fixed Service, MM Docket No. 93-24, *Report and Order*, 10 FCC Rcd 2907, 2914 ¶ 39 (1995).

[678] *See* Amendment of Parts 21, 43, 74, 78, and 94 of the Commission's Rules Governing Use of the Frequencies in the 2.1 and 2.5 GHz Bands Affecting: Private Operational-Fixed Microwave Service, Multipoint Distribution Service, Multichannel Multipoint Distribution Service, and Cable Television Relay Service, Gen. Docket No. 90-54, *Second Report and Order*, 6 FCC Rcd 6792 at ¶ 1 (1990) (*Second Report and Order*) (citing Amendment of Parts 21, 43, 74, 78, and 94 of the Commission's Rules Governing Use of the Frequencies in the 2.1 and 2.5 GHz Bands Affecting: Private Operational-Fixed Microwave Service, Multipoint Distribution Service, Multichannel Multipoint Distribution Service, and Cable Television Relay Service, Gen. Docket Nos. 90-54 and 90-113, *Notice of Proposed Rule Making and Notice of Inquiry*, 5 FCC Rcd 971 (1990)).

[679] *Second Report and Order* at ¶ 1 (citing Amendment of Parts 21, 43, 74, 78, and 94 of the Commission's Rules Governing Use of the Frequencies in the 2.1 and 2.5 GHz Bands Affecting: Private Operational-Fixed Microwave Service, Multipoint Distribution Service, Multichannel Multipoint Distribution Service, Instructional Television Fixed Service, and Cable Television Relay Service, Gen. Docket Nos. 90-54 and 90-113, *Report and Order*, 5 FCC Rcd 6410 (1990).

[680] *Second Report and Order* at ¶ 4 and ¶¶ 42-58; *see also Second Report and Order* at Appendix C; 47 C.F.R. § 74.990 (1991).

[681] *See* 47 C.F.R. § 74.990.

8 ITFS channels must remain available in the community.[682] Also, there can be no co-channel ITFS station within 50 miles of the proposed system.[683] If an ITFS applicant applies at the same time as the commercial operator, the ITFS applicant automatically wins.[684]

349. Although we sought comment on eligibility issues, no party specifically commented on the "wireless cable" exception to the ITFS/EBS eligibility issue. We conclude that this rule should not apply to EBS post-transition. We believe that the changes we have made to our rules, especially the inclusion of BRS and EBS in our secondary market rules, provides commercial operators with sufficient access to BRS spectrum. We note that this rule could be difficult to apply in the context of geographic area licensing. Given that EBS-eligible licensees have not been able to apply for new stations in this band since 1995, we believe the better action is to restrict access to ITFS frequencies after the transition to educational institutions and non-profit educational organizations.

350. In the absence of a record, we seek further comment on whether retain the rule at this time for markets that have not transitioned. Regardless of our ultimate decision, we will grandfather existing licenses granted pursuant to these rules. Such licenses may continue to be renewed and assigned.

F. Regulatory Fee Issues

351. Section 9 of the Communications Act[685] requires the Commission to assess regulatory fees to recover the costs associated with the Commission's enforcement, policy and rulemaking, user information, and international activities.[686] Below, we seek comment on a new methodology to assess regulatory fees based on the scope of a BRS licensee's authorized spectrum use rather than our current approach of assessing a flat fee per call sign. We also seek comment on our tentative conclusion to apply this updated methodology to ITFS licensees to the extent they are not statutorily exempt from regulatory fees because of their status as governmental or nonprofit entities. Specifically, and as explained in more detail below, we seek comment on a proposed fee methodology that would account for the benefits of an EBS or BRS spectrum authorization based on metrics, such as covered population (MHz/pops) or area (MHz/km2), to account for the bandwidth and the potential population or area that could be served.

352. *Background.* In the *NPRM*, we asked whether we should treat BRS and ITFS applicants and licensees differently for fee purposes.[687] We asked whether ITFS licensees and applicants should become subject to regulatory fees, to the extent that such licensees or applicants do not fall within an express statutory exemption.[688] We noted that MDS and ITFS licensees often provide service as part of the same system, and that ITFS licensees presently can lease up to ninety-five percent of their capacity to other entities (usually MDS licensees).[689] In light of these factors and the contemplated changes to our

[682] *See* 47 C.F.R. § 74.990(a).

[683] *Id*.

[684] *See* 47 C.F.R. § 74.990(e).

[685] 47 U.S.C. § 159. Section 9 was enacted by Congress in 1993. *See* Pub. L. No. 106-553.

[686] 47 U.S.C. § 159(a).

[687] *See NPRM,* 18 FCC Rcd at 6796-7 ¶¶ 183-185.

[688] *Id.* at ¶ 184.

[689] *Id.*

rules that could result in further equality among MDS and ITFS licensees, we sought comment on our tentative conclusion that regulatory fees for MDS and ITFS licensees should be identical. Finally, we sought comment on possibly changing the regulatory fee structure applicable to MDS licensees.[690]

353. Several parties commented on regulatory fee issues.[691] AHMLC states that it is inequitable not to assess fees on ITFS licensees on the grounds that they are non-commercial when, in fact, they often lease up to 95% of their capacity to commercial MDS licensees, which must pay fees. AHMLC therefore asserts that to the extent ITFS fees are not statutorily barred,[692] we should treat commercial ITFS licensees the same as their competitors.[693] By contrast, the Coalition argues that ITFS licensees should be exempt from regulatory fees because most would be exempt as a result of their governmental or nonprofit status.[694] The Coalition also argues that we should treat MDS like WCS for regulatory fee purposes, and include it in the CMRS Mobile Service fee category.[695] The Coalition asserts that the ability to offer CMRS was dispositive in classifying WCS for regulatory fee purposes, and it should be so for MDS. Grand Wireless argues that regulatory fees are particularly onerous for rural operators because, on a per population basis, the fees can amount to multiple times that of fees paid by urban licensees. Grand Wireless therefore asserts that a sliding fee—based upon population density—would more equitably distribute fees.[696]

354. In the *NPRM* we sought comment on how to treat MDS and ITFS applicants and licensees for fee purposes.[697] We sought comment on whether ITFS licensees and applicants should become subject to application fees and regulatory fees, to the extent that such licensees or applicants do not fall within an express statutory exemption.[698] We noted that MDS and ITFS licensees often provide service as part of the same system, and that ITFS licensees presently can lease up to ninety-five percent of their capacity to other entities (usually MDS licensees). In light of these factors and given the proposed rule changes in the *NPRM* that focused on regulatory parity among MDS and ITFS licensees,[699] we sought comment on our tentative conclusion that, to the extent that we determine that ITFS licensees should pay regulatory fees, the regulatory fees for MDS and ITFS licensees should be identical. Finally, we sought comment on changing the regulatory fees applicable to MDS licensees.[700]

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[690] *See NPRM*, 18 FCC Rcd at 6797 ¶ 185.

[691] See AHMLC Comments at 8, BellSouth Comments at 13-14 n.21, *Coalition* Comments at 140-141, and Grand Wireless Comments at 3, 13.

[692] Governmental and nonprofit entities are statutorily exempt from Section 9 regulatory fees. 47 U.S.C. § 159(h).

[693] *See* AHMLC Comments at 8. AHMLC also asserts that moving to a GSA licensing model should help reduce fees, and that licensees should be permitted to consolidate station sites in single markets into a single license to avoid multiple renewal and other future call sign-based filings. *Id*.

[694] *See Coalition* Comments at 140.

[695] *See id.* at 140-141.

[696] *See* Grand Wireless Comments at 3, 13.

[697] *See NPRM*, 18 FCC Rcd at 6796-97 ¶¶ 183-185.

[698] Governmental entities are statutorily exempt from Section 8 fees, and both governmental entities and nonprofit entities are statutorily exempt from Section 9 fees. 47 U.S.C. §§ 158(d)(1), 159(h).

[699] *See NPRM,* 18 FCC Rcd at 6742 ¶ 41.

[700] *See id.* at 6797 ¶ 185.

355. *Discussion.* Several parties commented on regulatory fees issues and these commenters generally disagree whether ITFS and MDS should pay the same regulatory fee.[701] In light of the comments received in this proceeding regarding fees and our decisions today that confirm EBS as a service distinct from BRS, we have elected to seek further comment on this issue. In our FY 2004 Regulatory Fees proceeding, we have proposed to continue to assess a regulatory fee of $270 for each BRS call sign.[702] We will therefore assess former MDS licensees in the BRS/EBS spectrum the regulatory fee amount determined in the FY 2004 Regulatory Fee proceeding. Because current EBS licensees are not subject to application and regulatory fees under the Commission's rules, and because most such licensees are exempt from fees as non-profit corporations or governmental institutions, we have determined that EBS licensees will not be subject to regulatory and application fees at this time. In future years, however, we believe the public interest would be better served by assessing BRS/EBS regulatory fees based on the scope of a licensee's authorized spectrum use.

356. Continuing to define regulatory fee categories based simply on a "type of service" scheme may no longer serve the public interest. We are sensitive to Grand Wireless's concern that rural licensees may be disadvantaged by having to pay the same regulatory fees as their urban counterparts whose licenses often cover a much greater population. Technological advances and the increased flexibility that the Commission has provided to ITFS licensees in this proceeding moreover have made their spectrum more fungible with MDS spectrum. Indeed, technological advances in recent years enable licensees utilizing distinct, but relatively close, frequency bands to provide services that are virtually indistinguishable to customers.[703] Rather than adopt service-based fee categories for MDS and ITFS, we intend to eliminate fee differences between these services that currently have similar spectrum benefits.[704] If we adopt a new fee methodology, licensees should be able to determine their fee obligations through a simple calculation, based predominantly on fixed, known variables.[705]

357. We propose a methodology to assess regulatory fees based on the scope of an BRS or EBS licensee's authorization and the benefits provided to licensees thereunder in accordance with Section

[701] *See* AHMLC Comments at 8 (to the extent ITFS fees are not statutorily barred, treat commercial ITFS licensees the same as their competitors), BellSouth Comments at 13-14 n.21, *Coalition* Comments at 140-141 (ITFS licensees should be exempt from regulatory fees because most would be exempt as a result of their governmental or nonprofit status; MDS should be should treat ed like WCS for regulatory fee purposes and included in the CMRS Mobile Service fee category), and Grand Wireless Comments at 3, 13.

[702] In the Matter of Assessment and Collection of Regulatory Fees for Fiscal Year 2004, MD Docket No. 04-73, *Notice of Proposed Rule Making*, 19 FCC Rcd 5795 (2004).

[703] For example, due to the advent of improved signal processing and silicon technologies, cellular mobile operations once limited to bands below 1 GHz, are now technically feasible in the 1.9 GHz band (Personal Communication Services).

[704] We note that several different types of microwave services have dissimilar general characteristics and, hence, dissimilar spectrum benefits, yet are subject to the same fee. For example, various private and common carrier point-to-point links are licensed with various sized channels such as a 5 MHz, 20 MHz, or a 40 MHz channel and can only operate over that one link, whereas some licensees have geographic license areas, yet common carrier and private microwave fee categories were both subject to an annual regulatory fee of $25 per license in FY 2003. The types of benefits received from these different services do not relate in a methodical way to fees owed.

[705] If the total amount of regulatory fees that Congress requires us to collect varies each year, which in the past has increased on average by no more than 11.2 percent, this would be the only variable that would be less predictable. This average does not reflect the fee increase from FY 1994 to FY 1995. The FY 1994 fees covered a partial year and the percentage increase in fees from FY 1994 to FY 1995 therefore was atypically high, 84.76 percent.

9(b)(3) and Section 9(b)(1)(a) of the Act.[706] Section 9(b)(1)(A) requires that fees "be adjusted to take into account factors that are reasonably related to the benefits provided to the payer of the fee by the Commission's activities, including such factors as service area coverage, shared use versus exclusive use, and other factors that the Commission determines are necessary in the public interest."[707] Section 9(b)(3) further provides that permissive amendments to the regulatory fee schedule shall "reflect additions, deletions, or changes in the nature of [our] services as a consequence of Commission rulemaking proceedings or changes in law."[708] Our goal is to ensure comparable treatment of similarly situated BRS/EBS licensees based on factors more reasonably related to the benefits they receive under their spectrum authorizations rather than assessing a flat fee per call sign.

358. Assessing fees based on the benefits of spectrum requires that we quantify and measure those benefits to the greatest extent possible. In addition to the coverage area and the extent of exclusivity specified in Section 9(b)(1)(A), we invite comment on other factors that would enable us to approximate better the benefits of a spectrum authorization and that are necessary in the public interest. Specifically, we seek comment on a proposed fee methodology that would account for the benefits of an BRS/EBS spectrum authorization based on metrics, such as covered population (MHz/pops) or area (MHz/km2), to account for the bandwidth and the potential population or area that could be served. A metric such as MHz/pops, which we have used in spectrum auctions to determine upfront payment amounts and bidding eligibility,[709] would account more precisely for the relative benefits of a particular spectrum authorization.

359. We propose that any metric that we adopt be applied consistently to all BRS/EBS licensees. Commenters should address the costs and benefits of adopting a metric based upon covered population (MHz/pops), square kilometers (MHz/km2), some combination of these measures, or any other method of calculating the licensee's regulatory fee. We seek comment on the ability of such metrics to accurately measure the benefits of the spectrum underlying a given authorization. A metric based on the size of the area that an authorization covers might undervalue spectrum in small, densely populated urban areas relative to large, sparsely populated rural areas. Metrics driven by the ratio of spectrum to population similarly also might undervalue spectrum in urban areas. Another approach, similar to that applied to regulatory fees for television stations, would be to group categories of licenses by market rank as determined by the population of the market served or geographic licensed service area. We also seek comment on a proposed metric's ability to logically and consistently rank the benefits of spectrum authorizations.

G. Gulf of Mexico Proceeding

360. In the *NPRM*, we incorporated the docket of the ongoing Gulf of Mexico proceeding, wherein the Commission proposed to establish a GSA in the Gulf of Mexico known as the "Gulf Service Area," subject to the same rules as the service areas established in the *Report and Order*, with certain

[706] 47 U.S.C. §§ 159(b)(3) and (b)(1)(A).

[707] 47 U.S.C. § 159(b)(1) (emphasis added).

[708] 47 U.S.C. § 159(b)(3).

[709] *See Public Notice*, "Auction of C, D, E, And F Block Broadband PCS Licenses Notice and Filing Requirements for Auction of C, D, E, and F Block Broadband Personal Communications Services Licenses Scheduled for March 23, 1999 Minimum Opening Bids And Other Procedural Issues," Report No. Auc-98-22-C (Auction No. 22), DA 98-2604 13 FCC Rcd 24540 (rel. Dec. 23, 1998).

limitations.[710] This rulemaking was initiated by Gulf Coast MDS Service Company ("Gulf Coast"), which sought to have the Gulf of Mexico treated as one service area with MDS and ITFS licenses assigned by competitive bidding.[711] PetroCom License Corporation ("PetroCom"), Gulf Coast's successor in interest, continues to request that the Commission establish a service area in the Gulf of Mexico using the *Report and Order* as a model,[712] but opines that the Commission should only authorize two licenses in the area and adopt eligibility restrictions to avoid excessive concentration of licenses.[713]

361. As noted in the *NPRM*, commenters generally supported the creation of a Gulf Service Area.[714] However, some commenters expressed concern over the timing of the adoption of rules for the service area due to certain technical and economic aspects of the proposal.[715] These commenters sought to delay the licensing of MDS in the Gulf of Mexico until after the Commission addressed the Coalition's proposals[716] and until the Commission established service rules.[717] However, because the rapid development and deployment of services to as many areas and populations as prudently possible is an important goal in this proceeding, in the *NPRM*, we adopted the proposal to create a Gulf service area because such a preliminary step "would not have to wait for the adoption of final rules in the proceeding."[718] We believed that to delay acting without having encountered any commenter opposition to the proposal would unnecessarily hinder the needs of businesses and consumers in the Gulf of Mexico

[710] Amendment of Parts 21 and 74 of the Commission's Rules With Regard to Licensing in the Multipoint Distribution Service and in the Instructional Television Fixed Service for the Gulf of Mexico, *Notice of Proposed Rulemaking*, WT Docket No. 02-68, 17 FCC Rcd 8446 (2002) (*Gulf Notice* or *Gulf of Mexico MDS NPRM* or *Gulf NPRM*). That proceeding was incorporated alongside the matter of Amendment of Parts 1, 21, 73, 74 and 101 of the Commission's Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and Other Services in the 2150-2162 and 2500-2690 MHz Bands. *NPRM*, 18 FCC Rcd at 6759 ¶ 91 (2003) (*NPRM*). *See Gulf Notice*, 17 FCC Rcd at 8447 ¶ 2.

[711] Petition for Rulemaking of Gulf Coast MDS Service Company (Gulf Coast Petition) (May 21, 1996).

See NPRM, 18 FCC Rcd at 6759 ¶ 91; *see also* Gulf Coast Petition. *See also* 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, *Report and Order*, 10 FCC Rcd 9589, 9608-17 ¶¶ 34-55 (1995) (*MDS Report and Order*).

[712] *See* Amended Petition at 4. "In the *MDS Report and Order*, the Commission adopted a licensing plan under which it assigned, through a simultaneous multiple round bidding process, one MDS authorization for each of the 487 BTAs and six additional geographic areas" as defined in Rand McNally's 1992 *Commercial Atlas and Marketing Guide*. *NPRM*, 18 FCC Rcd at 6759 ¶ 89, n.190 (citing *MDS Report and Order*, 10 FCC Rcd at 9608-09 ¶¶ 34-37). BTA authorization holders may construct facilities to provide service over any usable MDS channel within the BTA, although, such channels are only usable subject to the Commission's interference standards. *MDS Report and Order*, 10 FCC Rcd at 9608-18 ¶¶ 34-55.

[713] *See NPRM*, 18 FCC Rcd at 6759 ¶ 92 (citing Amended Petition for Rulemaking of PetroCom License Corporation (Amended Petition) (Nov. 23, 1998)).

[714] *See id.* at 6760 ¶¶ 92-93.

[715] *See id.* at 6760 ¶ 93. *See, e.g.*, PetroCom Comments at 3-5; Stratos Offshore Services Company at 2-3 (Stratos Offshore); WCA Comments at 4; PetroCom Reply Comments at 1-4; Sprint Reply Comments at 31.

[716] *See* WCA Comments at 4; Stratos Offshore Comments at 3.

[717] *See* PetroCom Comments at 3-5; PetroCom Reply Comments at 1-4. *See also NPRM* at ¶ 93.

[718] *See NPRM*, 18 FCC Rcd at 6761 ¶ 93.

region.[719] We agreed with the Gulf Coast Petition that establishing the Gulf Service Area "would allow specialized businesses that operate in the Gulf of Mexico to obtain advanced communication services that are currently unavailable to them" and thus operate more efficiently.[720]

362. While we proposed to create the Gulf Service Area for MDS services, we also proposed in the *Gulf Notice* to exclude all ITFS channels from licensing in the Gulf service area.[721] Our proposal was based on the fact that ITFS licensees had not expressed interest in seeking licenses to operate in the Gulf of Mexico, the area most likely had little need for educational service, and the requested commercial use did not require the full bandwidth available in the 2500-2690 MHz band.[722] We sought comment on this proposal and on whether we should consider unlicensed uses in the Gulf of Mexico.[723] We did not receive comment on these proposals, and therefore renew our request for feedback on these issues.

363. We noted in the *NPRM* that the Gulf Service Area does not have a significant population center and is based primarily on the geographic confines of the Gulf and on the likely commonality of commercial interests among the potential users in the Gulf.[724] Therefore, we believe that setting the proper geographic boundaries for the Gulf Service Area is particularly important as we seek to ensure the best possible service both inside the GSA and in neighboring service areas. In the Gulf Notice, the Commission proposed to use the same boundary definitions as adopted in the WCS *Report and Order*.[725] Pursuant to this approach, land-based license regions neighboring the Gulf area would extend to the limit of United States territorial waters in the Gulf of Mexico, which extend to the maritime zone approximately twelve nautical miles from the United States coastline.

364. PetroCom disagrees with the Commission's proposal to establish the demarcation line of the Gulf Service area at twelve nautical miles from the coastline and maintains that the better approach is to define the Gulf Service Area boundaries as the land-water line.[726] PetroCom points out that the land-water line was adopted as the boundary for cellular services.[727] Furthermore, PetroCom asserts that a shoreline boundary mirrors Commission rules regarding BTAs, as defined by Rand McNally, where

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[719] *See id*.

[720] *See id*. We note that the Gulf of Mexico area is a strong example of an underserved area where, for a lack of any significant population center, service has not been built out. Calls for delaying the creation of the proposed Gulf Service Area, without any indication that adverse consequences will result from this step alone, frustrates the Commission's goal of the rapid, nationwide deployment of services to areas and populations in need. *See also* Amendment of the Commission's Rules to Establish Part 27, the Wireless Communications Service ("WCS"), GN Docket No. 96-228, *Report and Order*, 12 FCC Rcd 10785, 10816 ¶ 59 (1997) (*WCS Report and Order*) ("[C]reating a service area for the Gulf of Mexico region will help meet the growing communications needs of businesses operating in the Gulf.").

[721] *See Gulf Notice*, 17 FCC Rcd at 8450 ¶ 13. *See also NPRM* at 6761 ¶ 94.

[722] *See Gulf Notice*, 17 FCC Rcd at 8450 ¶ 13.

[723] *See NPRM*, 18 FCC Rcd at 6761 ¶ 94.

[724] *See id.* at 6761 ¶ 95.

[725] *See Gulf Notice*, 17 FCC Rcd at 8453 ¶ 18. *See also WCS Report and Order*, 12 FCC Rcd at 10816.

[726] *See* PetroCom Comments at 5-6.

[727] *See* PetroCom Comments at 5-6 (citing Cellular Service and Other Commercial Mobile Radio Services in the Gulf of Mexico, *Report and Order*, 17 FCC Rcd 1209, 1219 ¶ 31 (2001) (*Gulf Cellular Order*).

boundaries follow county lines.[728] PetroCom argues that current MDS and ITFS licensees provide fixed services that do not require protection beyond the shore,[729] and that allowing land-based MDS and ITFS operations to extend into the Gulf will create interference problems for prospective Gulf licensees.[730] Thus, PetroCom implies that the Commission proposal to follow the WCS *Report and Order* boundary definitions will benefit incumbent land-based licensees at the expense of potential entrants, and discourage Gulf licensees from fully developing their systems.[731]

365. The Coalition disagrees with the Commission's decision to immediately establish the Gulf Service Area.[732] The Coalition further argues that any future operations in the Gulf must not adversely impact land-based services using the 2.5 GHz band. Noting that the 35-mile radii allotted to PSAs may extend well into the Gulf,[733] the Coalition argues that existing BTAs and PSAs must be fully protected.[734] WCA also contends that county line boundaries forming the basis for BTA boundary definitions extend into the Gulf as well, contrary to PetroCom's assertions.[735] Therefore, the Coalition supports a Gulf Service Area boundary beginning approximately twelve miles from shore.[736] The Coalition suggests further that any area between the Gulf Service Area and existing land-based service areas should be designated a Gulf Coastal Zone and that both the Gulf Service Area provider and the adjacent land-based service provider should be permitted to offer service therein.[737] We seek additional comment on the merits of the boundary definitions proposed by both PetroCom and the Coalition.

366. Sprint is similarly concerned that Gulf operations could interfere with its own land-based operations.[738] Therefore, Sprint also favors defining the boundary for the Gulf Service Area as twelve nautical miles from the coastline.[739] Sprint further shares the Coalition's concern that a particular interference problem known as "ducting" may be caused by operations in the Gulf Service Area.[740] We seek additional comment on the ducting propagation phenomenon. For example, how often does ducting occur and will there be ducting of inland signals? Can any steps be taken to minimize the adverse impacts of signal propagation?

367. As previously noted, commenters requested that the Commission delay considering the issues presented in the *Gulf Notice* until after the Commission considered the Coalition proposal to

[728] See PetroCom Comments to the Amended Petition at 4.

[729] *See* PetroCom Comments at 6.

[730] *See* PetroCom Reply Comments at 5.

[731] *See* PetroCom Reply Comments at 5.

[732] *See* WCA Comments at 74.

[733] *See* WCA Comments at 79.

[734] *See* WCA Comments at 74.

[735] *See* WCA Comments at 79-80.

[736] *See* WCA Comments at 80.

[737] *See* WCA Comments at 81.

[738] *See* Sprint Comments at 15-16.

[739] *See* Sprint Comments at 15-16.

[740] *See* Sprint Comments at 15-16. *See also* WCA Comments at 74-78.

transform the service.[741] We remain concerned that the record is not sufficiently developed to resolve issues concerning the amount of spectrum to license in the Gulf Service Area, competitive bidding, partitioning and disaggregation, interference protection requirements, construction periods, and license term. Therefore, we renew our request for comment on these and the other issues discussed herein.

H. Streamlining FCC Review of Transactions

368. As discussed in Section III.B.4, we expect that the transition to the new band plan will be implemented swiftly, and we anticipate that proponent-driven transition plans are likely to involve the assignment, partitioning, disaggregation, and leasing of spectrum usage rights in order to rationalize new spectrum holdings. We seek comment generally on ways to streamline our current procedures for reviewing these transactions to facilitate more efficient transitions.

369. We note that we have taken steps to simplify the licensing process and remove unnecessary regulatory burdens by standardizing a number of MDS and ITFS practices and procedures. For example, once mandatory electronic filing in ULS is in place, MDS and ITFS licensees will use FCC Form 603 and associated schedules to apply for consent to assignment of existing authorizations (including channel swaps), to apply for Commission consent to the transfer of control of entities holding authorizations, to notify the Commission of the consummation of assignments or transfers, and to request extensions of time for consummation of assignments or transfers. We seek comment on whether additional streamlining of the filing or review process for transfers and assignments, as well as spectrum leases, should be implemented. In addition, in Section IV.D.6, we decided to permit partitioning and disaggregation for both ITFS and MDS licensees. We seek comment on whether the procedures set forth in Section 21.931 and Section 1.948 of our rules permit sufficiently streamlined notification and review. We seek comment on any other ways to streamline our procedures for transactions involving MDS and ITFS licensees.

I. Continuing Review of Progress Towards Policy Goals

370. *Background.* In the *R&O*, we have taken a series of actions to further our broadband and spectrum policy goals. Perhaps the most fundamental action we took was to adopt a radically altered band plan in order to facilitate the development of wireless broadband systems and to reduce the likelihood of interference caused by incompatible uses. We have also adopted a streamlined transition plan designed to facilitate a rapid transition to the new band plan while preserving the existing uses in the band. In addition, we have retained the EBS eligibility requirements in order to protect and promote existing and new educational uses in the band. We have also taken various other actions to facilitate the development of advanced broadband and educational systems and to eliminate outdated and burdensome rules on our licensees. While we are asking for broad policy information in response to this aspect of the *FNPRM*, we do not intend to revisit the policy decisions we have made in the *R&O*. Our purpose in asking these questions is to gather information that will allow us to monitor developments in the band to ensure that we are responsive to future changes.

371. The goals we seek to accomplish in this proceeding, however, are not short term. Rather, we seek long-term and sustainable changes in this band. Indeed, as explained in the R&O, we believe that the changes we have implemented will unlock much of the promise in this band. Given the importance of lasting transformation of this band, we believe it is important to actively review the state of development in this band to ensure that the measures we have adopted today accomplish our stated policy goals. We are

[741] *See NPRM*, 18 FCC Rcd at 6762 ¶ 97.

committed to ensuring that the Commission takes an active role in assessing whether our policy goals remain appropriate and, more importantly, whether the specific rules we have adopted are appropriately tailored to meet our policy goals. In that regard, we seek comment on various issues relating to the future of BRS and EBS.

372. *Discussion.* Given the many difficulties that licenses have traditionally faced in deploying services in this band, we believe it is particularly important in this proceeding that we continue to actively monitor the state of deployment in this band. In order to keep fully informed, we seek comment on the future trends that licensees, equipment manufacturers, and other stakeholders expect for BRS and EBS. For example, we ask licensees that currently use BRS or EBS for high-power operations to provide their expectations as to how long they expect the MBS will be used for high-power operations. We will continue to monitor progress in the use of BRS in providing advanced wireless broadband services, as well as the success of EBS in meeting their educational mission. We invite comments on how we can continue to ensure that the Commission's licensing policies truly support that important educational aim. It is critical that the Commission's rules and policies concerning BRS and EBS facilitate deployment of services to educational institutions, students, and broadband services to consumers generally. Time is of the essence. We understand that both the demand and the technology is there for a third broadband pipe into the home. We expect that licensees will aggressively take advantage of the opportunities we are creating today to offer advanced and innovative services to customers and students. Efficient use of spectrum is of paramount importance. We will closely monitor deployment to determine whether changes are necessary down the road and whether the rules and policies we have adopted continue to have a nexus to our laudable goals.

373. We intend to closely monitor the marketplace to determine whether the rules we have adopted are serving their intended purpose. We strongly anticipate that as a result of the rules we are adopting today, this band will be much more intensively utilized by commercial interests, educational interests, and other entities. We seek comment on the type of information we should track in order to monitor deployment, as well as information that would help us to identify obstacles to deployment. To the extent that deployment is not taking place in the band, we intend to thoroughly review the situation and consider appropriate changes to our rules. For example, if BRS and EBS spectrum is being underutilized, there could be several possible causes for that underutilization. Further revisions could be necessary to our technical rules. Alternatively, continued technological and market developments could have unanticipated effects on this band. We ask commenters to provide examples of the types of information that the Commission should look at to determine whether our rules are working as intended.

374. We recognize that the ultimate success in recreating this band is also closely linked to the availability of investment dollars in support of wireless broadband services. We believe that our rules create a more stable environment that will promote additional capital investment. However, we seek comment on whether there are additional actions that we can take that will compel additional investment. At the same time, we seek comment on whether there are any actions that we are taking that may hinder or provide disincentives to investment.

VI. PROCEDURAL MATTERS

A. *Ex Parte* Rules – Permit-But-Disclose

375. This is a permit-but-disclose notice and comment rulemaking proceeding. Ex parte presentations are permitted, except during the Sunshine Agenda period, provided they are disclosed

pursuant to the Commission's rules.[742]

B. Comment Period and Procedures

376. Pursuant to applicable procedures set forth in Sections 1.415 and 1.419 of the Commission's rules,[743] interested parties may file comments on this Notice on or before [30 days from publication in the Federal Register], and reply comments on or before [60 days from publication in the Federal Register]. Comments and reply comments should be filed in WT Docket No. 03-66, and may be filed using the Commission's Electronic Comment Filing System (ECFS) or by filing paper copies.[744] All relevant and timely comments will be considered by the Commission before final action is taken in this proceeding.

377. Comments filed through the ECFS can be sent as an electronic file via the Internet to <http://www.fcc.gov/e-file/ecfs.html>. In completing the transmittal screen, commenters should include their full name, Postal Service mailing address, and the applicable docket number. Parties may also submit an electronic comment by e-mail via the Internet. To obtain filing instructions for e-mail comments, commenters should send an e-mail to ecfs@fcc.gov, and should include the following words in the body of the message: "get form <your e-mail address>." A sample form and directions will be sent in reply.

378. Parties who choose to file by paper must file an original and four copies of each filing. If parties want each Commissioner to receive a personal copy of their comments, they must file an original plus nine copies. All filings must be sent to the Commission's Secretary, Marlene H. Dortch, Office of the Secretary, Federal Communications Commission, 445 12th Street, S.W., Room TW-A325, Washington, D.C. 20554. Furthermore, parties are requested to provide courtesy copies for the following Commission staff: (1) Nancy Zaczek, Genevieve Ross, and Stephen Zak, Broadband Division, Wireless Telecommunications Bureau, Federal Communications Commission, 445 12th Street, S.W., Room. 3-C124, Washington, D.C. 20554; and (2) William Huber and Erik Salovaara, Auctions and Spectrum Access Division, Wireless Telecommunications Bureau, Federal Communications Commission, 445 12th Street, S.W., Room. 4-A760, Washington, D.C. 20554. One copy of each filing (together with a diskette copy, as indicated below) should also be sent to the Commission's copy contractor, Best Copy and Printing, Inc, 445 12th Street, SW, Room CY-B402, Washington, DC, 20554, 1-800-378-3160.

379. Parties who choose to file by paper should also submit their comments on diskette. These diskettes should be attached to the original paper filing submitted to the Office of the Secretary. Such a submission should be on a 3.5 inch diskette formatted in an IBM compatible format using Microsoft TM Word 97 for Windows or compatible software. The diskette should be accompanied by a cover letter and should be submitted in "read only" mode. The diskette should be clearly labeled with the commenter's name, proceeding, type of pleading (comment or reply comment), date of submission, and the name of the electronic file on the diskette. The label should also include the following phrase "Disk Copy – Not an Original." Each diskette should contain only one party's pleadings, preferably in a single electronic file. In addition, commenters should send diskette copies to the Commission's copy contractor, Qualex International, 445 12th Street, SW, Room CY-B402, Washington, DC, 20554, 202-863-2893.

380. The public may view the documents filed in this proceeding during regular business

[742] *See generally* 47 C.F.R. §§ 1.1202, 1.1203, 1.1206.

[743] *See* 47 C.F.R. §§ 1.415, 1.419.

[744] Electronic Filing of Documents in Rulemaking Proceedings, *Report and Order*, 13 FCC Rcd 11322 (1998).

hours in the FCC Reference Information Center, Federal Communications Commission, 445 12th Street, S.W., Room CY-A257, Washington, D. C. 20554, and on the Commission's Internet Home Page: <http://www.fcc.gov>. Copies of comments and reply comments are also available through the Commission's duplicating contractor: Best Copy and Printing, Inc., 445 12th Street, SW, Room CY-B402, Washington, DC, 20554, 1-800-378-3160. Accessible formats (computer diskettes, large print, audio recording and Braille) are available to persons with disabilities by contacting Brian Millin, of the Consumer & Governmental Affairs Bureau, at (202) 418-7426, TTY (202) 418-7365, or at bmillin@fcc.gov.

C. Final Regulatory Flexibility Analysis

381. The Regulatory Flexibility Act (RFA)[745] requires that an agency prepare a regulatory flexibility analysis for notice and comment rulemakings, unless the agency certifies that "the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities.[746] Accordingly, we have prepared a Final Regulatory Flexibility Analysis concerning the impact of the rule changes contained in this *R&O* on small entities. The Final Regulatory Flexibility Analysis is set forth in Appendix B.

D. Initial Regulatory Flexibility Analysis

382. As required by the Regulatory Flexibility Act of 1980 (RFA),[747] the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on small entities of the policies and rules proposed in the Notice. The analysis is found in Appendix A. We request written public comment on the analysis. Comments must be filed in accordance with the same deadlines as comments filed in response to the *NPRM* & MO&O, and must have a separate and distinct heading designating them as responses to the IRFA. The Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, will send a copy of this *NPRM* & MO&O, including the IRFA, to the Chief Counsel for Advocacy of the Small Business Administration.

E. Paperwork Reduction Analysis

383. This document contains new information collection requirements subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104-13. It will be submitted to the Office of Management and Budget (OMB) for review under Section 3507(d) of the PRA. OMB, the general public, and other Federal agencies are invited to comment on the new information collection requirements contained in this proceeding. In addition, we note that pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, *see* 44 U.S.C. 3506(c)(4), we previously sought specific comment on how the Commission might "further reduce the information collection burden for small business concerns with fewer than 25 employees."

384. In this present document, we have assessed the effects of requiring licensees to file Initiation Plans and Post Transition Notification Plans, and find that these requirements will not adversely affect businesses with fewer than 25 employees. First, it is unlikely that such businesses will serve as Proponents under our new Transition Plan thereby triggering the requirement to file an Initiation Plan as

[745] *See* 5 U.S.C. § 601–612. The RFA 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).

[746] 5 U.S.C. § 605(b).

[747] *See* 5 U.S.C. § 603.

we generally expect that Proponents will largely consist of larger businesses with sufficient revenue to transition an entire market. To the extent that such businesses would serve as Proponents, the filing of Initiation Plans will not constitute a burden or require significant paperwork preparation because these Proponents will meet this filing requirement, by submitting, in whole or in part, their written agreements on transition. With regard to the Post Transition Notification Plan, we do not believe that such a filing would constitute a burden to businesses with fewer than 25 employees because such notices will consist of a simple notification to the Commission that the transition has been completed. This notification is in the public interest because it will help to ensure that the BRS/EBS spectrum is properly utilized. We seek comment on these conclusions.

F. Further Information

385. For further information concerning this rulemaking proceeding, contact Genevieve Ross or Nancy Zaczek, Broadband Division, Wireless Telecommunications Bureau, Federal Communications Commission, 445 12th Street, S.W., Room 3-B-153, Washington, D.C. 20554; at (202) 418-2487 or via the Internet to Nancy.Zaczek@fcc.gov or Genevieve.Ross@fcc.gov.

VII. ORDERING CLAUSES

386. Accordingly, IT IS ORDERED, pursuant to sections 1, 2, 4(i), 7, 10, 201, 214, 301, 302, 303, 307, 308, 309, 310, 319, 324, 332, 333 and 706 of the Communications Act of 1934, 47 U.S.C. §§ 151, 152, 154(i), 157, 160, 201, 214, 301, 302, 303, 307, 308, 309, 310, 319, 324, 332, 333, and 706, that this *Report and Order* is hereby ADOPTED.

387. IT IS FURTHER ORDERED, pursuant to sections 1, 2, 4(i), 7, 10, 201, 214, 301, 302, 303, 307, 308, 309, 310, 319, 324, 332, 333 and 706 of the Communications Act of 1934, 47 U.S.C. §§ 151, 152, 154(i), 157, 160, 201, 214, 301, 302, 303, 307, 308, 309, 310, 319, 324, 332, 333, and 706, that this *Further Notice of Proposed Rulemaking* is hereby ADOPTED.

388. IT IS FURTHER ORDERED that NOTICE IS HEREBY GIVEN of the proposed regulatory changes described in this *Further Notice of Proposed Rulemaking*, and that comment is sought on these proposals.

389. IT IS FURTHER ORDERED, that the proceeding entitled Amendment of Parts 21 and 74 to Enable Multipoint Distribution Service and the Instructional Television Fixed Service Amendment of Parts 21 and 74 to Engage in Fixed Two-Way Transmissions, MM Docket No. 97-217 IS TERMINATED.

390. IT IS FURTHER ORDERED that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this *Report and Order* & *Further Notice of Proposed Rulemaking*, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

APPENDIX A

INITIAL REGULATORY FLEXIBILITY ANALYSIS

(For Further Notice of Proposed Rulemaking)

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),[748] the Commission has prepared this present Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on a substantial number of small entities by the policies and rules proposed in this *Further Notice of Proposed Rule Making (FNPRM)*. Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines specified in the *FNPRM* for comments. The Commission will send a copy of this *FNPRM*, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).[749] In addition, the *FNPRM* and IRFA (or summaries thereof) will be published in the Federal Register.[750]

Need for, and Objectives of, the Proposed Rules:

2. In this *FNPRM* we seek comments on solutions to implement in the event that the plan we adopt today for transitioning to the new band plan, set forth in section IV.A.5, *supra,* does not reach a satisfactory stage of implementation within three years. A quick and efficient transition to a segmented, de-interleaved band plan is critical to ensuring that the public spectrum resource represented by the 2500-2690 MHz band does not remain underutilized. We have adopted a new band plan to further the public interest in efficient and intensive use of spectrum. To prevent undue delay in implementing the new band plan, the transition process will sunset in each major economic area[751] where a proponent does not timely file within three years of the rules' effective date a transition proposal that has resolved, pursuant to the Commission's rules, any properly presented objections. This three year time limit will provide an incentive for existing users to develop transition proposals in a timely manner.[752] Finally, recognizing that parties may not be able to control the timing of all aspects of the transition, we require only that the proposal be finalized, with any objections addressed, and filed within the three-year period.

3. Irrespective of how well the transition process to the new band plan is designed, it may

[748] *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).

[749] *See* 5 U.S.C. § 603(a).

[750] *See* 5 U.S.C. § 603(a).

[751] For detailed discussion on MEAs, *see* para. 82, *supra.*

[752] Three years is an adequate period for existing users to develop a detailed proposal for transitioning existing uses and facilities to the new band plan and address objections from other users. As an initial matter, many existing users already have had ample time to consider transitions to the new band plan. The new band plan and the transition process incorporate substantial elements of the Coalition's proposal, which has been the subject of extensive public comment for nearly two years. Moreover, many users of this spectrum are members of the Coalition and played a role in crafting the initial proposal.

not be possible for private parties to transition existing uses to the new band plan in a way that balances the public interest in protecting those uses with the public interest in the new band plan. There are large numbers of existing users in the band with varied and disparate interests. A proponent therefore must coordinate large numbers of substantially varying interests in order to transition to the new band plan. A proponent may not come forward in every major economic area and every proponent that comes forward may not be able to resolve all reasonable objections made to its proposal. Furthermore, the transition process may not perfectly define reasonable transition proposals or rapidly and accurately determine whether particular objections to particular transitions are reasonable. Consequently, transitions to the new band plan may not occur within one or more major economic area within the allotted time.

4. Consequently, we tentatively conclude herein that in major economic areas that are not transitioned to the new band plan pursuant to the transition process we have adopted herein,[753] the public interest in services made possible by the new band plan will be best served by clearing existing users from the spectrum. The transition process we have adopted represents the best effort at transitioning existing use to facilities compatible with the new band plan. While new transition plans, including in areas otherwise without one, might result from refinements to the transition process, we conclude that the absence of a timely filed Initiation Plan[754] indicates that existing uses cannot be reasonably balanced with the new band plan in the relevant area. Consequently, the public will receive the benefits of the new band plan only if existing users are cleared from the spectrum and the Commission grants new licenses to use the spectrum consistent with the new band plan. Accordingly, we propose to implement this transition process in areas where the requirements we have instituted herein are not met within the required time frame.

5. As stated in the text of the *FNPRM*,[755] we request comment on a number of issues relating to competitive bidding procedures that could be used to assign new licenses in this band by auction. We propose to conduct any such auction in conformity with the general competitive bidding rules set forth in Part 1, Subpart Q, of the Commission's rules, and substantially consistent with many of the bidding procedures that have been employed in previous auctions.[756] Specifically, we propose to employ the Part 1 rules governing, among other things, competitive bidding design, designated entities, application and payment procedures, collusion issues, and unjust enrichment.[757] Under this proposal, such rules would be subject to any modifications that the Commission may adopt in our Part 1 proceeding.[758] In addition, consistent with current practice, matters such as the appropriate competitive

[753] *See* section IV.A.5, *supra.*

[754] *See* paras. 86-87, *supra.*

[755] *See* para. 264-319, *supra.*

[756] *See, e.g.,* Amendment of Part 1 of the Commission's Rules—Competitive Bidding Procedures, WT Docket No. 97-82, *Order, Memorandum Opinion and Order and Notice of Proposed Rule Making,* 12 FCC Rcd 5686 (1997); *Third Report and Order and Second Further Notice of Proposed Rule Making*, 13 FCC Rcd 374 (1997) (*Part 1 Third Report and Order)*; *Order on Reconsideration of the Third Report and Order, Fifth Report and Order, and Fourth Further Notice of Proposed Rule Making*, 15 FCC Rcd 15293 (2000) (*recon. pending*) (*Part 1 Recon Order/ Fifth Report and Order* and *Fourth Further Notice of Proposed Rule Making*); *Seventh Report and Order*, 16 FCC Rcd 17546 (2001); *Eighth Report and Order,* 17 FCC Rcd 2962 (2002).

[757] *See* 47 C.F.R. § 1.2101 *et seq.*

[758] *See Fourth Further Notice of Proposed Rule Making*, 15 FCC Rcd 15293; *see also Part 1 Recon Order/Fifth Report and Order*, 15 FCC Rcd 15293 (*recon. pending*) [cite check – recon pending?].

bidding design, as well as minimum opening bids and reserve prices, would be determined by the Wireless Telecommunications Bureau pursuant to its delegated authority.[759] We seek comment on whether any of our Part 1 rules or other auction procedures would be inappropriate or should be modified for an auction of new licenses in this band, and on whether alternative rules would more effectively serve our basic purposes.[760]

6. We seek comment on the appropriate definition(s) of small business that should be used to determine eligibility for bidding credits in the auction. With respect to the auction of EBS licenses, we further seek comment on any special challenges associated with governmental educational institutions or non-governmental non-profit educational institutions participating in auctions.

7. In the *Part 1 Third Report and Order*, we adopted a standard schedule of bidding credits for certain small business definitions, the levels of which were developed based on our auction experience.[761] The standard schedule appears at Section 1.2110(f)(2) of the Commission's rules.[762] Are these levels of bidding credits appropriate for this band? For this proceeding, we would propose to define an entity with average annual gross revenues not exceeding $40 million for the preceding three years as a "small business;" an entity with average gross revenues not exceeding $15 million for the same period as a "very small business;" and an entity with average gross revenues not exceeding $3 million for the same period as an "entrepreneur."[763] In the event that we offer bidding credits on this basis, we propose to provide qualifying "small businesses" with a bidding credit of 15%, qualifying "very small businesses" with a bidding credit of 25%; and qualifying "entrepreneurs" with a bidding credit of 35%, consistent with Section 1.2110(f)(2).[764] Finally, we invite comment on the effect of potentially having three small business sizes, and bidding credits, for new licenses in this band while having had only one small business size (average annual gross revenues for the preceding three years not exceeding $40 million) and one credit (15%) in the BRS service.[765] We seek comment on this proposal.

8. We recognize that educational institutions and non-profit educational organizations eligible to hold EBS licenses may have unique characteristics. We therefore invite comment on whether

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[759] *See* Amendment of Part 1 of the Commission's Rules - Competitive Bidding Procedures*, Third Report and Order and Second Further Notice of Proposed Rule Making*, 13 FCC Rcd 374, 448-49, 454-55, ¶¶ 125, 139 (directing the Bureau to seek comment on specific mechanisms relating to auction conduct pursuant to the Balanced Budget Act of 1997) (*Part 1 Third Report and Order*).

[760] In 1997, Congress mandated that the Commission "ensure that small businesses, rural telephone companies, and businesses owned by members of minority groups and women are given the opportunity to participate in the provision of spectrum-based services." *See* 47 U.S.C. § 309(j)(4)(D). In addition, section 309(j)(3)(B) of the Act provides that in establishing eligibility criteria and bidding methodologies, the Commission shall promote "economic opportunity and competition . . . by avoiding excessive concentration of licenses and by disseminating licenses among a wide variety of applicants, including small businesses, rural telephone companies, and businesses owned by members of minority groups and women." *See* 47 U.S.C. § 309(j)(3)(B).

[761] *See Part 1 Third Report and Order*, 13 FCC Rcd at 403-04, ¶ 47.

[762] *See* 47 C.F.R. § 1.2110(f)(2).

[763] *See* 47 C.F.R. § 1.2110(f)(2). We note that we will coordinate the small business size standards for ITFS in this proceeding with the U.S. Small Business Administration.

[764] 47 C.F.R. § 1.2110(f)(2)(i)-(iii).

[765] *See* 47 C.F.R. § 21.961(b).

distinctive characteristics of EBS licensees require distinct rules for assessing the relative size of potential participants in an auction. How do our designated entity provisions comport with the unique challenges and status of educational institutions? Should we establish special provisions for non-profit educational institutions that may want to have access to EBS spectrum but do not have the financial capability to compete in an auction for spectrum licenses? We seek comment on whether the non-commercial character of EBS licensees requires any special procedures for determining the average annual gross revenues of such entities. For example, are our standard gross revenue attribution rules an appropriate method of evaluating the relative resources of universities and government entities? We also invite comment on whether some other criterion besides average annual gross revenues should be used for identifying small entities among EBS licensees and similar applicants.

9. Commenters proposing alternative business size standards should give careful consideration to the likely capital requirements for developing services in this spectrum. In this regard, we note that new licensees may be presented with issues and costs involved in transitioning incumbents and developing markets, technologies, and services. Commenters also should consider whether the band plan and characteristics of the band suggest adoption of other small business size definitions and/or bidding credits in this instance.

10. We believe our proposals will encourage utilization of this band and 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 proposals will provide licensees flexibility of use which will allow them to adapt quickly to changing market conditions and the marketplace.

Legal Basis:

11. The proposed action is authorized under Sections 1, 2, 4(i), 7, 10, 201, 214, 301, 302, 303, 307, 308, 309, 310, 319, 324, 332, 333 and 706 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 152, 154(i), 157, 160, 201, 214, 301, 302, 303, 307, 308, 309, 310, 319, 324, 332, 333, and 706.

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

12. 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.[766] The RFA generally defines the term "small entity" as having the same meaning as the terms, "small business," "small organization," and "small governmental jurisdiction."[767] In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.[768] A small business concern is one which:

[766] 5 U.S.C. § 603(b)(3).

[767] 5 U.S.C. § 601(6).

[768] 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).

[768] 15 U.S.C. § 632.

(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.[769]

13. Nationwide, there are 4.44 million small business firms, according to SBA reporting data.[770] 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.[771] The SBA has developed small business size standards for wireline and wireless small businesses within the three commercial census categories of Wired Telecommunications Carriers,[772] Paging,[773] and Cellular and Other Wireless Telecommunications.[774] Under these categories, a business is small if it has 1,500 or fewer employees. Below, using the above size standards and others, we discuss the total estimated numbers of small businesses that might be affected by our actions.

14. 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).[775] 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.[776] 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. 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.[777] 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.[778] 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

[769] 15 U.S.C. § 632.

[770] *See* 1992 Economic Census, U.S. Bureau of the Census, Table 6 (special tabulation of data under contract to Office of Advocacy of the U.S. Small Business Administration).

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

[772] 13 C.F.R. § 121.201, North American Industry Classification System (NAICS) code 517110.

[773] 13 C.F.R. § 121.201, NAICS code 517211.

[774] 13 C.F.R. § 121.201, NAICS code 517212.

[775] 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)*.

[776] 47 C.F.R. § 21.961(b)(1).

[777] 13 C.F.R. § 121.201, NAICS code 513220 (changed to 517510 in October 2002).

[778] 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).

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 also appears 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.[779] Thus, we tentatively conclude that at least 1,932 licensees are small businesses.

15. In connection with the 1996 MDS auction, the Commission defined "small business" as an entity that, together with its affiliates, has average gross annual revenues that are not more than $40 million for the preceding three calendar years.[780] The Commission established this small business definition in the context of this particular service and with the approval of SBA.[781] The MDS auction resulted in 67 successful bidders obtaining licensing opportunities for 493 Basic Trading Areas (BTAs).[782] Of the 67 auction winners, 61 met the definition of a small business. 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.[783] After adding the number of small business auction licensees to the number 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 proposals in this *NPRM & MO&O*.

16. Multipoint Distribution Service, Multichannel Multipoint Distribution Service, and Instructional Television Fixed Service. 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). In connection with the 1996 MDS auction, the Commission defined "small business" as an entity that, together with its affiliates, has average gross annual revenues that are not more than $40 million for the preceding three calendar years. The SBA has approved of this standard. The MDS auction resulted in 67 successful bidders obtaining licensing opportunities for 493 Basic Trading Areas (BTAs). Of the 67 auction winners, 61 claimed status as a small business. 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 have gross revenues that are not more than $40 million and are thus considered small entities.

17. 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

[779] 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.

[780] 47 C.F.R. § 21.961(b)(1).

[781] *See MDS Auction R&O,* 10 FCC Rcd 9589.

[782] Basic Trading Areas (BTAs) were designed by Rand McNally and are the geographic areas by which MDS was auctioned and authorized. *See Id.* at 9608.

[783] 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.

receipts. 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. 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 proposed rules and policies.

18. Finally, while SBA approval for a Commission-defined small business size standard applicable to ITFS is pending, educational institutions are included in this analysis as small entities. There are currently 2,032 ITFS licensees, and all but 100 of these licenses are held by educational institutions. Thus, we tentatively conclude that at least 1,932 ITFS licensees are small businesses.

19. Cable and Other Program Distribution. This category includes cable systems operators, closed circuit television services, direct broadcast satellite services, multipoint distribution systems, satellite master antenna systems, and subscription television services. The SBA has developed small business size standard for this census category, which includes all such companies generating $12.5 million or less in revenue annually. 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. 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, the Commission estimates that the majority of providers in this service category are small businesses that may be affected by the rules and policies proposed herein.

20. 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.[784] 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.[785] 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, some of which these providers, specifically those who have not met the requirements for transition articulated herein may be affected by our spectrum clearing proposal

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

21. There are no new reporting, recordkeeping or other compliance requirements proposed in the *FNPRM.*

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

22. 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

[784] *See* 5 U.S.C. §§ 601 (3)-(5).

[785] *See* 13 C.F.R. § 121.210 (SIC 4833, 4841, and 4899).

entities."[786]

23. In this *FNPRM*, we seek comment on a spectrum clearing proposal[787] to ensure that the 2500-2690 MHz band does not lie fallow. Inasmuch as this proposal provides opportunities for new entrants in the band, it opens up economic opportunities to a variety of spectrum users, including small businesses. In the *R&O* portion of this document, we have adopted an alternative to this spectrum clearing proposal, which consists of transitioning current users to the new band plan also adopted.[788] Our spectrum clearing proposal could be implemented in the event that the plan we adopt is not satisfactorily implemented within three years. Therefore, affected parties have been given an alternative to our spectrum clearing proposal, and will only be subject thereto in the event that they do not comply with our new rules in a reasonable amount of time. We also seek comment on significant alternatives commenters believe we should adopt.

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

24. None.

[786] *See* 5 U.S.C. § 603(c).

[787] *See* section V.A.2, *supra.*

[788] *See* section IV.A.5, *supra.*

APPENDIX B

FINAL REGULATORY FLEXIBILITY ANALYSIS

(For Report and Order)

25. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),[789] 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.[790]

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.[791] The RFA generally defines the

[789] *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).

[790] *See* 5 U.S.C. § 604.

[791] 5 U.S.C. § 603(b)(3).

term "small entity" as having the same meaning as the terms, "small business," "small organization," and "small governmental jurisdiction."[792] In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.[793] 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.[794] A small organization is generally "any not-for-profit enterprise which is independently owned and operated and is not dominant in its field."[795]

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.[796]

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).[797] 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.[798] 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.[799] After adding the number of small business auction licensees to the number of

[792] 5 U.S.C. § 601(6).

[793] 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).

[793] 15 U.S.C. § 632.

[794] 15 U.S.C. § 632.

[795] 5 U.S.C. § 601(4).

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

[797] 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)*.

[798] 47 C.F.R. § 21.961(b)(1).

[799] 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.

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.[800] 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.[801] 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.[802] 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.[803] 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.[804] 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.[805] 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:

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[800] 13 C.F.R. § 121.201, NAICS code 513220 (changed to 517510 in October 2002).

[801] 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).

[802] 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.

[803] 13 C.F.R. § 121.201.

[804] *See* 5 U.S.C. §§ 601 (3)-(5).

[805] *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,[806] and other appropriate forms.[807] 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;[808] (2) require international coordination of the application;[809] 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.[810]

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."[811]

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

[806] 47 C.F.R. § 1.913(a)(1).

[807] 47 C.F.R. § 1.2107.

[808] 47 C.F.R. § 1.1307.

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

[810] *See* section IV.D, *supra.*

[811] *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.[812] 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

[812] *See* discussion at para. 70, *supra.*

unnecessary regulations concerning filing requirements.[813]

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.[814] 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*.[815]

[813] *See* section IV.D, *supra.*

[814] *See generally,* 5 U.S.C. § 801 (a)(1)(A).

[815] *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
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 ser vice 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	2400-2417 AMATEUR	ISM Equipment (18) Amateur (97)
			2402-2417 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 5.150 5.397	2450-2483.5 FIXED MOBILE RADIOLOCATION 5.150 5.394		2450-2483.5 5.150 US41	2450-2483.5 FIXED MOBILE Radiolocation 5.150 US41	ISM Equipment (18) Auxiliary Broadcasting (74) Private Land Mobile (90) Fixed Microwave (101)

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

5.339 5.403 5.405 5.412 5.418 5.418B 5.418C	5.339 5.403 5.418B 5.418C	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	5.339 US205	5.339	

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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) 5.149 5.412 5.420	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) 5.149 5.420	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) 5.149 5.420	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)
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) 5.149 5.419 5.420	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) 5.149 5.419 5.420	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 5.420A	US205	US269	
2690-2700 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340 5.421 5.422			2690-2700 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY US74 SPACE RESEARCH (passive) 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:
EIRP = 33 dBW + 10 log(X/6) dBW + 10 log(360/beamwidth) dBW, where X is the channel width in MHz and 10 log(360/beamwidth) <= 6 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 colocation 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 [mμ] 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/m super2; 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 x 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 x 0.25) and A's interest in "Licensee" would be 1.5% (0.1 x 0.6 x 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 unabridgeable 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 unabridgeable 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 unabridgeable 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-transiton 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 3O 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 it 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 mutually 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.

(d) If the Commission denies or dismisses all petitions to deny, if any are filed, and is otherwise satisfied that an applicant is qualified, a public notice will be issued announcing that the broadcast construction permit(s) is ready to be granted, upon full payment of the balance of the winning bid(s). See 47 CFR 73.5003. Construction of broadcast stations shall not commence until the grant of such permit or license to the winning bidder.

45. Section 73.5007 is amended by deleting paragraph (b)(2)(vi) and revising paragraphs (b)(2)(iv) and (v) to read as follows:

§ 73.5007 Designated entity provisions.

* * * * *

(b)(2)

* * *

(iv) Cable television system--the franchised community of a cable system; and
(v) Daily newspaper--community of publication.

* * * * *

46. Section 73.5008 is amended by revising paragraph (b) to read as follows:

* * * * *

(b) A medium of mass communications means a daily newspaper; a cable television system; or a license or construction permit for a television broadcast station, an AM or FM broadcast station, or a direct broadcast satellite transponder.

* * * * *

PART 74 --- EXPERIMENTAL RADIO, AUXILIARY, SPECIAL BROADCASTING AND OTHERPROGRAM DISTRIBUTIONAL SERVICES

47. The authority citation for Part 74 continues to read as follows:

AUTHORITY: 47 U.S.C. 154, 303, 307, and 554.

48. Section 74.1 is amended by revising paragraph (b) to read as follows:

§ 74.1 Scope.

* * * * *

(b) Rules in Part 74 which apply exclusively to a particular service are contained in that service subpart, as follows: Experimental Broadcast Stations, Subpart A; Remote Pickup Broadcast Stations, Subpart D; Aural Broadcast STL and Intercity Relay Stations, Subpart E; TV Auxiliary Broadcast Stations, Subpart F; Low-power TV, TV Translator and TV Booster Stations, Subpart G; Low-power Auxiliary Stations, Subpart H; FM Broadcast Translator Stations and FM Broadcast Booster Stations, Subpart L.

49. Section 74.15 is amended by deleting paragraph (e) and redesignating paragraphs (f) and (g) as (e) and (f) respectively.

50. Section 74.703 is amended by revising paragraph (d) to read as follows:

§ 74.703 Interference.

* * * * *

d) When a low-power TV or TV translator station causes interference to a CATV system by radiations within its assigned channel at the cable headend or on the output channel of any system converter located at a receiver, the earlier user, whether cable system or low-power TV or TV translator station, will be given priority on the channel, and the later user will be responsible for correction of the interference. When a low-power TV or TV translator station causes interference to a BRS or EBS system by radiations within its assigned channel on the output channel of any system converter located at a receiver, the earlier user, whether BRS system or low-power TV or TV translator station, will be given priority on the channel, and the later user will be responsible for correction of the interference.

* * * * *

51. Section 74.832 is amended by revising paragraph (a) to read as follows:

§ 74.832 Licensing requirements and procedures.

(a) * * *

(6) Licensees and conditional licensees of stations in the Service and Multichannel Multipoint Distribution Service as defined in § 21.2 of this chapter, or entities that hold an executed lease agreement with an MDS or MMDS licensee or conditional licensee or with an Instructional Television Fixed Service licensee or permittee.

* * * * *

52. Subpart I is removed and reserved.

PART 76 - MULTICHANNEL VIDEO AND CABLE TELEVISION SERVICE

53. The authority for Part 76 continues to read as follows:

AUTHORITY: 47 U.S.C. 151, 152, 153, 154, 301, 302a, 303, 303a, 307, 308, 309, 312, 317, 325, 338, 339, 503, 521, 522, 531, 532, 533, 534, 535, 536, 537, 543, 544, 544a, 545, 548, 549, 552, 554, 556, 558, 560, 531, 571, 572, and 573.

54. Section 76.64 is amended by revising paragraph (d) to read as follows:

§ 76.64 Retransmission consent.

* * * * *

(d) A multichannel video program distributor is an entity such as, but not limited to, a cable operator, a

BRS/EBS provider, a direct broadcast satellite service, a television receive-only satellite program distributor, or a satellite master antenna television system operator, that makes available for purchase, by subscribers or customers, multiple channels of video programming.

* * * * *

55. Section 76.71 is amended by revising paragraph (a) to read as follows:

§ 76.71 Scope of application.

(a) The provisions of this subpart shall apply to any corporation, partnership, association, joint-stock company, or trust engaged primarily in the management or operation of any cable system. Cable entities subject to these provisions include those systems defined in § 76.5(a), all satellite master antenna television systems serving 50 or more subscribers, and any multichannel video programming distributor. For purposes of the provisions of this subpart, a multichannel video programming distributor is an entity such as, but not limited to, a cable operator, a BRS/EBS provider, a direct broadcast satellite service, a television receive-only satellite program distributor, or a video dialtone program service provider, who makes available for purchase, by subscribers or customers, multiple channels of video programming, whether or not a licensee. Multichannel video programming distributors do not include any entity which lacks control over the video programming distributed. For purposes of this subpart, an entity has control over the video programming it distributes, if it selects video programming channels or programs and determines how they are presented for sale to consumers. Nothwithstanding the foregoing, the regulations in this subpart are not applicable to the owners or originators (of programs or channels of programming) that distribute six or fewer channels of commonly-owned video programming over a leased transport facility. For purposes of this subpart, programming services are "commonly- owned" if the same entity holds a majority of the stock (or is a general partner) of each program service.

* * * * *

56. Section 76.503 is amended by revising paragraph (e) to read as follows:

§ 76.503 National Subscriber Limits.

* * * * *

(e) "Multichannel video-programming subscribers" means subscribers who receive multichannel video-programming from cable systems, direct broadcast satellite services, direct-to-home satellite services, BRS/EBS, local multipoint distribution services, satellite master antenna television services (as defined in § 76.5(a)(2)), and open video systems.

* * * * *

57. Section 76.905 is amended by revising paragraph (d) to read as follows:

§ 76.905 Standards for identification of cable systems subject to effective competition.

* * * * *

(d) A multichannel video program distributor, for purposes of this section, is an entity such as, but not limited to, a cable operator, a BRS/EBS provider, a direct broadcast satellite service, a television receive-only satellite program distributor, a video dialtone service provider, or a satellite master antenna television service provider that makes available for purchase, by subscribers or customers, multiple channels of video programming.

* * * * *

58. Section 76.1000 is amended by revising paragraph (e) to read as follows:

§ 76.1000 Definitions

* * * * *

(e) Multichannel video programming distributor. The term "multichannel video programming distributor" means an entity engaged in the business of making available for purchase, by subscribers or customers, multiple channels of video programming. Such entities include, but are not limited to, a cable operator, a BRS/EBS provider, a direct broadcast satellite service, a television receive-only satellite program distributor, and a satellite master antenna television system operator, as well as buying groups or agents of all such entities.

* * * * *

59. Section 76.1200 is amended by revising paragraphs (a) and (b) to read as follows:

§ 76.1200 Definitions.

As used in this subpart:

(a) Multichannel video programming system. A distribution system that makes available for purchase, by customers or subscribers, multiple channels of video programming other than an open video system as defined by § 76.1500(a). Such systems include, but are not limited to, cable television systems, BRS/EBS systems, direct broadcast satellite systems, other systems for providing direct-to-home multichannel video programming via satellite, and satellite master antenna systems.

(b) Multichannel video programming distributor. A person such as, but not limited to, a cable operator, a BRS/EBS provider, a direct broadcast satellite service, or a television receive-only satellite program distributor, who owns or operates a multichannel video programming system.

* * * * *

60. Section 76.1300 is amended by revising paragraph (d) to read as follows:

§ 76.1300 Definitions.

* * * * *

(d) Multichannel video programming distributor. The term "multichannel video programming distributor" means an entity engaged in the business of making available for purchase, by subscribers or customers, multiple channels of video programming. Such entities include, but are not limited to, a cable operator, a BRS/EBS provider, a direct broadcast satellite service, a television receive-only satellite program distributor, and a satellite master antenna television system operator, as well as buying groups or agents of all such entities.

* * * * *

PART 78 – CABLE TELEVISION RELAY SERVICE

61. The authority for Part 78 continues to read as follows:

AUTHORITY: 47 U.S.C. 2, 3, 4, 301, 303, 307, 308, 309, 48 Stat., as amended, 1064, 1065, 1066, 1081, 1082, 1083, 1084, 1085; 47 U.S.C. 152, 153, 154, 301, 303, 307, 308, 309.

62. Section 78.1 is amended to read as follows:

§ 78.1 Purpose.

The rules and regulations set forth in this part provide for the licensing and operation of fixed or mobile cable television relay service stations (CARS) used for the transmission of television and related audio signals, signals of standard and FM broadcast stations, signals of BRS/EBS fixed stations, and cablecasting from the point of reception to a terminal point from which the signals are distributed to the public by cable. In addition CARS stations may be used to transmit television and related audio signals to TV translator and low-power TV stations.

63. Section 78.5 is amended by revising paragraph (j) to read as follows:

§ 78.5 Definitions.

* * * * *

(j) Other eligible system. A system comprised of microwave radio channels in the BRS/EBS spectrum (as defined in Subpart M of Part 27) that delivers multichannel television service over the air to subscribers.

* * * * *

64. Section 78.11 is amended by revising paragraph (a) to read as follows:

§ 78.11 Permissible service.

(a) CARS stations are authorized to relay TV broadcast and low-power TV and related audio signals, the signals of AM and FM broadcast stations, signals of BRS/EBS fixed stations, and cablecasting intended for use by one or more cable television systems or other eligible systems. LDS stations are authorized to relay television broadcast and related audio signals, the signals of AM and FM broadcast stations, signals of BRS/EBS fixed stations, cablecasting, and such other communications as may be authorized by the Commission. Relaying includes retransmission of signals by intermediate relay stations in the system.

CARS licensees may interconnect their facilities with those of other CARS, common carrier, or television auxiliary licensees, and may also retransmit the signals of such CARS, common carrier, or television auxiliary stations, provided that the program material retransmitted meets the requirements of this paragraph.

* * * * *

65. Section 78.13 is amended by deleting paragraph (e), redesignating paragraph (f) as paragraph (e) and revising paragraph (d) to read as follows:

§ 78.13 Eligibility for license.

* * * * *

(d) Licensees and conditional licensees of channels in the BRS/EBS band as defined in **§ 27.5(i)** of this chapter, or entities that hold an executed lease agreement with a BRS/EBS licensee or conditional licensee.

* * * * *

66. Section 79.1 is amended by revising paragraph (d) to read as follows:

§ 79.1 Closed captioning of video programming.

* * * * *

(d) * * *

(7) EBS programming. Video programming transmitted by an Educational Broadband Service licensee pursuant to part 27 of this chapter.

* * * * *

PART 101--FIXED MICROWAVE SERVICES

67. The authority citation for Part 101 continues to read as follows:

AUTHORITY: 47 U.S.C. 154, 303.

68. Section 101.101 is amended by deleting the reference to the 2150-2160 MHz frequency band.

69. Section 101.147 is amended by deleting the reference to the 2150-2160 MHz frequency band in paragraph (a), and by deleting and reserving paragraphs (e) and (g).

APPENDIX D

LIST OF COMMENTERS

Comments

Adams Telecom, Inc., Central Texas Communications, Inc., & Leaco Rural Telephone
Ad Hoc MMDS Licensee Consortium
Archdiocese of Los Angeles
Archdiocese of New York
Arraycomm, Inc.
Atlanta Interfaith Broadcasters
BellSouth Corporation and BellSouth Wireless Cable, Inc.
Catholic Television Network and National ITFS Association
Cellular Telecommunications & Internet Association
Colorado State University
Comspec Corporation
Dallas MDS Partners
Department of Education Archdiocese of New York
Diocese of Brooklyn
Earthlink, Inc.
The Education Community
Education Service Center Region 10
Ericsson, Inc.
Fixed Wireless Holdings, LLC
Grand Alliance
Grand Wireless Company
Hardin and Associates, Inc.
Hispanic Information and Telecommunications Network, Inc.
Illinois Institute of Technology
Independent MMDS Licensee Coalition
Information Technology Industry Council
Intel Corporation
IPWireless, Inc.
The ITFS/2.5 GHz Mobile Wireless Engineering & Development Alliance
ITFS Parties
Lucent Technologies, Inc.
Michael Kelly Revocable Trust, d/a/a Shannondale Wireless
MMDS License Coalition
Motorola, Inc.
National Telecommunications Cooperative Association
Navini Networks, Inc.
Network for Instructional TV, Inc.
New America Foundation, et. al.
Nextnet Wireless, Inc.
NTCA
Ntelos, Inc.
Oklahoma Western Telephone Company, Inc.
PCIA
Rural Commenters

The School Board of Broward County
The School Board of Miami-Dade County, Florida
South Carolina Educational Television Commission
Spectrum Market, LLC
Sprint Corporation
Stanford University and Northeastern University
Teton Wireless Television, Inc.
Texas State Technical College, Harlingen
University of Colorada
Virginia Communications, Inc.
Wavetel, LLC
W.A.T.C.H. TV Company
Wireless Communications Association, International (WCA), National Instructional Television Fixed Service (NIA) and Catholic Television Network (CTN)
WH-TV, Inc. d/b/a Digital TV One
Winbeam, Inc.
Worldcom, Broadband Solutions, Inc.

Reply Comments
Adams Telecom, Inc., Central Texas Communications, Inc., & Leaco Rural Telephone
Alvarion
Gordon Archer
Arraycomm, Inc.
Atlanta Interfaith Broadcasters
BellSouth Corporation and BellSouth Wireless Cable, Inc.
Bway.Net, Inc.
California Amplifier, Inc.
Catholic Television Network and National ITFS Association
Celplan Technologies, Inc.
Clarendon Foundation
Comspec Corporation
Department of Education Archdiocese of New York
Digital TV One
The Education Community
Education Service Center Region 10
Fixed Wireless Holdings, LLC
Flarion Technologies, Inc.
Peter Frishauf
George Mason University Instructional Foundation, F Corporation, Michael Kelley Trust
Mary Gorman
Grand Alliance
Gryphon Wireless, LLC
Hispanic Information and Telecommunications Network, Inc.
Daniel Howe
Huntsville City Schools ETV
Intel Corporation
IPWireless, Inc.
The ITFS/2.5 GHz Mobile Wireless Engineering & Development Alliance
ITFS Spectrum Development Alliance, Inc.

Rob Kelley
Joshua Kronengold
Sascha D. Meinrath
Microsoft Corporation
Milwaukee Area Technical College District Board
The Mississippi Ednet Institute, Inc.
Navini Networks, Inc.
Network for Instructional TV, Inc.
New America Foundation, et. al.
Nextnet Wireless, Inc.
Nextel Communications, Inc.
North Carolina Community Colleges
Nucentrix Broadband Networks, Inc.
NTELOS, Inc.
Michael Oh
Polar Communications Mutual Aid Corporation
Pamela Quinn
Rural Commenters
H. Michael Sanders
San Diego ITFS Licensees
SBC Communications
School Board of Broward County
The School Board of Miami-Dade County, Florida
Sioux Valley Wireless
Kurt A Snodgrass
Soma Networks
Spectrum Market, LLC
Sprint Corporation
Stanford University, Northeastern University, Diocese of Brooklyn
Teton Wireless Television, Inc.
Blake Twedt & John Dudeck
University of Arizona
University of South Florida
WH-TV, Inc., D/B/A Digital TV One
Tom Zachman

Ex Parte Comments
Shaun Abshere
Accel Net, Inc.
ACUTA, Inc.
Ad Hoc MMDS Licensee Consortium
Aircable America
Aircomm Associates/Nutec Communications, Inc.
Tommy Allmand
Anaheim City School District
Archbishop of Chicago
Archbishop of Los Angeles
Atlanta Interfaith Broadcasters, Inc.
Dr. Herb Berg

Robert J. Berger
Bishop of Dallas
Moss Bresnahan, President of South Carolina ETV
Donald Briggs
Scott Brooke
James W. Browder
Robert H. Bruininks
John Bucher
Carolyn Burrow
Catholic Television Network and National ITFS Association
Carolyn Bukhair
Christopher Casebeer
Charleston County School District
Clearwire Corporation
Jennifer Davis
Digital Broadcast Corporation
Education Community, Catholic Television Network, and National ITFS Association
Educational Institutions
Electronic Frontier Foundation
Jim Emal
Lisa Faas
Joe Farmer
Robert J. Fear
Sidnie Feit
Tom Fletcher
Friends of WLRN, Inc.
George Mason University Instructional Foundation
W. Scott Gerstenberger
Alexander Gonzalez, President, California State University-Sacramento
Jim Gottlieb
John Haeger
Elisabeth Hall
Mike Hammett
Lenn Hann
Hawkeye Community College
HITV, Hernando County School Board
Joanne Hugi
Huntsville City Schools ETV Center
Illinois Institute of Technology & Stanford University
Information Technology Industry Council
Intel Corporation
Interested Education Parties
International Society for Technology in Education and Consortium for School Networking
IPWireless
Dr. Michael R. Kelley
Kirkwood Community College
H. Martin Lancaster, NC Community College System
Michael Lannon
Last Mile Wireless

Jack Lemley
Luxon Wireless
Sandy Maddox
Ed Mass
Mark McAllister
Allen McDaniel
Mary McLaughlin
Charles McMickle
Media Access Project
Stephen Merrill
Miami-Dade County Public Schools
Michiana Wireless
Minnesota Network Services
Missouri Southern State University
Mountain State College
Navini Networks, Inc.
Network For Instructional TV, Inc.
Nextel Communications, Inc.
New America Foundation, *et. al*.
Oregon Wireless Instructional Network
Oswalt Systems, Inc.
Hartwell Pendergrass
Private Networks, Inc.
Pamela K. Quinn
QwikWire.NET
Reliable Internet Services
James R. Richburg, President Okaloosa-Walton Community College
Connie Rodriguez
Rural Ramp
The School Board of Broward County
Mathew Schroebe
John Scrivner - Mt. Vernon. Net, Inc.
Fred Seitz
Sanford C. Shugart
Sioux Valley Wireless
Sprint Corporation
Stanford University
Statewide Internet Services
Texas ISP Association
Tim Steele
Kevin Sullivan
Tarrant County College District
Teton Wireless Television, Inc.
Troy Thoele - Cybercom Wireless
Traer Municipal Utilities
University of Cincinnati, Raymond Walters College, Dean Dolores Y. Straker
Steve H. Updegrove
WATCH TV Company
Webpipe.net, Inc.

James E. Wesner, University of Cincinnati
Gary Williams
Wireless Communications Association, International
Bill Wisneski
WISPA
Zirkel Wireless - Sean Heskett
Peter Zoller

APPENDIX E

DISMISSED MUTUALLY EXCLUSIVE ITFS APPLICATIONS

MX-groupings	Name	Group	Location
19920402DL	Hillsdale Community Schools	A	Albion, MI
19920402DM	Jonesville Community School	B	Albion, MI
19920717DA	Michigan Center School Dist.	A	Jackson, MI
19920717DB	Concord Community School	B	Jackson, MI
19920825DE	Clarendon Foundation	A	Baton Rouge, LA
19920917DB	Views on Learning	B	Baton Rouge, LA
19920925DE	ABG Foundation Nebraska Chapter, Inc.	D	Omaha, NE
19931228DJ	Louisiana Educational TV Authority	A	Plaquemine, LA
19931228DA	The Fd Ex LA Pub	C	Plaquemine, LA
19931230DU	Creighton University	D	Omaha, NE
9550910	WBSWP Licensing Corporation (MDS, MX with ITFS)	H	Boynton Beach, FL
19950524DD	Florida Atlantic University	C	Palm Beach, FL
19950915HW	The School Board of Dade County, Florida	F/G	Miami, FL
19950912DO	Instructional Telecommunications Foundation, Inc.	C	Salt Lake City, UT
19950914LC	Verde Valley School	D	Casa Grande, AZ
19951016AQ	Hispanic Info Telecom Network	D	Casa Grande, AZ
19951016AV	Hispanic Info Telecom Network	B	Bloomingdale, GA
19951016BJ	Hispanic Info Telecom Network	C	Santa Rosa, CA
19951017AM	Shekinah Network	B	Eureka, CA
19951018AD	Canyon County School	B	Boise, ID
19951019CC	CA State University Northridge	A/B	Santa Barbara
19951020AG	North American Catholic Educational Programming Foundation, Inc.	A	Eureka, CA
19951020AT	Santa Maria Joint Union HS	A/B	Santa Ynez, CA
19951020BC	The Delta-Montrose AVTC	B	Delta, CO
19951020BI	Tulane University of LA	A	Monroe, LA
19951020BL	Ft Hayes St University	A	Great Bend, KS
19951020ET	Hispanic Info Telecom Network	B	Boise, ID
19951020FM	Santa Rosa Junior College	C	Santa Rosa, CA
19951020GG	Hispanic Info Telecom Network	G	Billings, MT
19951020GI	Hispanic Info Telecom Network	B	Salinas, CA
19951020HK	LA Educational TV Auth	A	Delhi, LA
19951020KF	Chicago Inst Tech Td Inc	D	University PK, IL
19951020LD	North American Catholic Educational Programming	G	Alamosa, CO

	Foundation, Inc.		
19951020LM	The Clarendon Foundation	C	Ukiah, CA
19951020NE	North American Catholic Educational Programming Foundation, Inc.	B	Delta, CO
19951020PK	The Information Res F	B	Grand Junction, CO
19951020PP	LA Educational TV Authority	A	Monroe, LA
19951020PZ	Views on Learning, Inc.	A	Eureka, CA
19951020QT	Hartnell Community College	B	Salinas, CA
19951020RB	Cornerstone Christian SS Inc.	A	Grand Junction, CO
19951020SG	Delta Cty Joint School D #51	A	Delta, CO
19951020SN	Provo School District	C	Provo, UT
19951020SQ	St. Bede Academy	D	Ottawa, IL
19951020SV	Unified Sch Dist 489	A	Hayes, KS
19951020WP	Hispanic Info Telecom Network	G	Alamosa, CO
19951020XT	Board of Education for Savannah	B	Bloomingdale, GA
19951020ZR	Yellowstone ED Cnt	G	Billings, MT
19951020GE	Currituck County Board of Education	D	Hertford, NC
19951020E2	Elizabeth City State University	D	Elizabeth City, NC
19951020UH	Roanoke Bible College	B	Elizabeth City, NC
19951020S5	Univ of NC General Admin	B	Chapel Hill, NC

APPENDIX F

DISMISSED PLEADINGS RELATING TO MUTUALLY EXCLUSIVE ITFS APPLICATIONS

File No.	Applicant	Petitioner	Type of Pleading	Date Pleading Filed
19920402DL	Hillsdale Community Schools	Wireless Cable, Inc.	Petition to Deny	2/19/1993
19920402DM	Jonesville Community Schools	Wireless Cable, Inc.	Petition to Deny	2/19/1993
19920717DA	Michigan Center School District	Hillsdale Community Schools	Petition to Deny	2/5/1993
19951020SN	Provo School District	Instructional Telecommunications Foundation, Inc.	Petition to Deny	7/11/1997
19920925DE	ABG Foundation, Nebraska Chapter, Inc.	USA Wireless Cable, Inc.	Petition to Deny	12/30/1993
9550910	WBSWP Licensing Corp.	WBSWP Licensing Corp.	Waiver Request	5/24/1995
19950915HW	The School Board of Dade County, Florida	The School District of Broward County, Florida	Petition to Deny	11/1/1996
19950524DD	Florida Atlantic University	The School Board of Dade County, Florida	Petition to Deny	11/1/1996

SEPARATE STATEMENT OF
CHAIRMAN MICHAEL K. POWELL

Re: Amendment of Parts 1, 21, 73, 74 and 101 of the Commission's Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Education and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands (WT Docket No. 03-66); et al., Report and Order and Further Notice of Proposed Rulemaking.

We are witnessing the dawn of a new era for wireless broadband. Today's decision does away with heavy-handed rules that have governed the MDS/ITFS band ("2.5 GHz band") for far too long. Freed from regulatory shackles, educational institutions will now have the flexibility to utilize their spectrum in the way most advantageous to the students and the public they serve.

The magnitude of today's ruling is apparent when one considers that this band is *double* the spectrum that sparked the WiFi explosion at 2.4 GHz and equivalent to the entire spectrum devoted to terrestrial mobile, wireless services. Until now, 2.5 GHz has failed to emulate the successes experienced by these other bands.

This Order gives ITFS and the newly named Broadband Radio Service (BRS) licensees new options for developing and deploying innovative technologies including low-power, mobile wireless broadband technologies. These systems will provide a competitive alternative to cable modem and DSL service and will transform the marketplace by expanding broadband rural areas and decreasing the price of current broadband services.

In addition, this Order offers more choices to educational institutions. Under these new rules, licensees can choose to continue delivering high-powered educational television, develop new instructional uses over the ITFS spectrum, or lease excess capacity to commercial operators to fund alternative educational delivery methods. It's up to them to decide what makes the most sense to serve their community.

Today's decision is yet another milestone in this drive to expand the advanced broadband services nationwide. By promoting education, competition, innovation, and broadband deployment today's decision helps benefit us all.

Lastly, I would like to express my sincere gratitude to the Wireless Bureau staff who worked many long hours to resolve the difficult issues presented in this proceeding. I'd also like to thank everyone who participated in this proceeding, my esteemed colleagues, the agency Bureaus, educators, and the industry, for their comments and insightful proposals.

SEPARATE STATEMENT OF
COMMISSIONER KATHLEEN Q. ABERNATHY

Re: Amendment of Parts 1, 21, 73, 74 and 101 of the Commission's Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Education and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands (WT Docket No. 03-66); et al., Report and Order and Further Notice of Proposed Rulemaking.

With this order the Commission furthers two critical goals; maximizing the efficient use of the spectrum resource and facilitating the deployment of broadband services to all Americans. While many MMDS and ITFS licensees currently provide very valuable services to the public, it appears that these services have not yet reached their full potential and some of the spectrum remains underutilized. Licensees have repeatedly told us that regulatory hurdles thwart their attempts to deploy the new, innovative services demanded by the market.

This order responds directly to a proposal from the ITFS and MMDS industries for major revision of current regulations. Our intent is to ensure these services will no longer be hindered by outdated and overly restrictive regulation. While we have not adopted the industry proposal in total, we have used it as a solid basis for many of the rule changes we adopt today. These new policies will promote greater flexibility for the newly named Broadband Radio Service (BRS) licensees so that they can deploy new products, such as a third broadband pipe to the home, a mobile solution, a broadcast alternative, or some other service, as driven by the market. In addition, this order grants the educational community the same flexibility as commercial users in order to ensure that our nation's educators have access to the most innovative technologies and services.

As BRS and ITFS licensees transition to our new band plan, I look forward to receiving the upcoming reports from the Wireless Telecommunications Bureau which will monitor and evaluate the use of the band to ensure that the spectrum is being used efficiently and effectively.

Finally, I want to thank all the parties that participated in this proceeding for their cooperation and input, as well as the staff of the Wireless Telecommunications Bureau for their tireless work to quickly resolve the many issues presented to us in this proceeding.

SEPARATE STATEMENT OF
COMMISSIONER MICHAEL J. COPPS

Re: Amendment of Parts 1, 21, 73, 74 and 101 of the Commission's Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Education and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands (WT Docket No. 03-66); et al., Report and Order and Further Notice of Proposed Rulemaking.

Today we take a major step toward providing stability in the MMDS and ITFS band. We establish a new band plan that separates high-power operations from low-power operations. We create a transition mechanism designed to move us from the current plan to a new three-part band plan. And, most importantly, we resolve with finality the question of ITFS eligibility. ITFS licenses are, and will continue to be, reserved for educators. Uncertainty on all these matters has created a confusing environment for too long, and it has held back needed investment. But now 1,275 ITFS licensees in 70,000 locations have the stability they need to make the most of this spectrum. I thank the Chairman and my colleagues for making this the case.

So now our ITFS and MMDS licensees can fully demonstrate to the Commission that with this stability they will build out their systems. Many licensees are already doing incredible work and making efficient and intensive use of the spectrum. Others are not, but now they have the opportunity—and the obligation—to do so. The Bureau has been tasked with reporting to the Commission on progress on the transition and on the intensity of use of the band. While we all understand that the dislocations caused by the transition will have an impact on deployment schedules, every licensee must work hard to ensure that they move forward and put this valuable spectrum to use rapidly. There are many who believe that MMDS and ITFS licensees will not use the spectrum efficiently. I think they are wrong. This is your chance, licensees, to prove the skeptics wrong.

The best ITFS licensees provide an example of how the public's spectrum can truly be used to serve the public interest. Children are educated. Distance learning is enabled. Rural access becomes a reality. Let's make the best of ITFS the rule for the whole band.

Thanks to the Bureau and thanks again to my colleagues for all the hard work on this difficult item. I believe that our collaboration has produced very positive results.

SEPARATE STATEMENT OF
COMMISSIONER KEVIN J. MARTIN

Re: Amendment of Parts 1, 21, 73, 74 and 101 of the Commission's Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Education and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands (WT Docket No. 03-66); et al., Report and Order and Further Notice of Proposed Rulemaking.

I am pleased to support this item, which initiates a fundamental restructuring of the Instructional Fixed Service (ITFS), Multipoint Distribution Service (MDS), and Multichannel Multipoint Distribution Service (MMDS) band. Based on broad support from the affected parties, this item provides a home for both high-power and low-power operations and thereby gives users greatly enhanced flexibility. This approach preserves the ability of users to provide traditional video and other services, while also significantly promoting broadband deployment. Indeed, I am optimistic that this spectrum will provide a home for last-mile broadband applications, providing competition to telephone and cable lines. In the end, consumers will benefit from innovative services and lower prices.

I am also particularly pleased that we retained the requirement that ITFS spectrum be held by educational institutions and organizations. Encouraging and supporting education is a crucial value to our society, and that value is reflected in the reservation of spectrum for educational users. While some argue that educational spectrum is currently not being used efficiently, we must remember that this spectrum has been under the cloud of major proposed changes for a number of years. Now that a plan for restructuring the band is in place, we should give educators the opportunity and encouragement to move forward.

SEPARATE STATEMENT OF
COMMISSIONER JONATHAN S. ADELSTEIN

Re: Amendment of Parts 1, 21, 73, 74 and 101 of the Commission's Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Education and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands (WT Docket No. 03-66); et al., Report and Order and Further Notice of Proposed Rulemaking.

The Communications Act places an obligation on the Commission to encourage the investment in and rapid deployment of new technologies. In today's Order, we hopefully meet that obligation by adopting rules that provide a framework for innovation in the BRS and ITFS services. Our rules accommodate the latest technologies and will facilitate the provision of broadband over wireless, a potential third pipe to the home. It is no secret that the BRS and ITFS services have had a tortured regulatory history. Today we establish a policy regime that will finally bring these services squarely into the 21st century.

The changes we are making today rightly recognize the potential of the 2496-2690 MHz band and take advantage of its capabilities. I am most excited about the future use of the spectrum for broadband services, both commercial and educational. I am a strong believer in the future and the potential of broadband communications. Broadband has the power to transform the lives of individuals and the future of communities. I believe that wireless solutions will play an important role in the future for broadband deployment especially in rural areas. Today's Order recognizes this and implements the means to promote advanced wireless services.

I also am pleased that we reaffirm today that there is a continued role for educators in this spectrum band. For forty years, ITFS providers have used this spectrum for educational programming. It would be wrong to phase out the role of educators at the same time we radically change the structure of the band. Stanford University, my own alma mater, has been licensed to operate as an ITFS system for over thirty years. The university transmits more than 350 programming hours a week. Stanford provides instructional coursework to thousands of graduate students throughout the Bay Area and works closely with many in the high tech community to ensure that their employees have the best education possible.

As we transition to broadband, we need to consider the important work of educators using ITFS like Stanford. And we also need to consider the impact of the transition on those incumbents who are providing video and broadband services in smaller markets throughout the country. I have worked hard to ensure as smooth a transition as possible for ITFS and MDS incumbents, and thank my colleagues for their support in accommodating a number of my revisions. I am also pleased that the Commission has asked for a series of reports that will give details on the progress of the transition process and will comment on some of the lessons learned as we undertake this novel effort.

I am disappointed, though, that the Order moves forward with a transition process that is based on major economic areas (MEAs). The BRS and ITFS services are local services, and I believe that broadband deployment for the foreseeable future will be rolled out on a relatively localized basis. I am concerned that the obligation to transition an entire MEA will make it exceedingly difficult for proponents to effectuate transitions in their particular market.

Finally, I want to thank the Wireless Telecommunications Bureau for all of their time and hard work spent on this monumental item. This Order represents a significant step by the Commission to ensure that providers continue to have opportunities to deploy broadband so that all consumers across America have access to the best communications possible.