

APPENDIX A**Final Rules**

For the reasons set forth in the preamble, parts 2, 74, 78, and 101 of title 47 of the Code of Federal Regulations are amended as follows:

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

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

Authority: 47 U.S.C. 154, 302, 303, 307, 336, and 337, unless otherwise noted.

2. Amend § 2.106 as follows:
 - a. Revise pages 48 and 49 of the Table of Frequency Allocations.
 - b. In the list of United States footnotes, revise footnote US90, remove footnotes US111 and US219, and add footnotes US346 and US347.
 - c. In the list of non-Federal Government footnotes, revise footnotes NG118 and NG153, and add footnotes NG156 and NG168.

The additions and revisions read as follows:

§ 2.106 Table of Frequency Allocations.

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S5.149 S5.341 S5.385 S5.386 S5.387 S5.388			1755-1850 FIXED MOBILE G42	1755-1850	
1930-1970 FIXED MOBILE S5.388	1930-1970 FIXED MOBILE Mobile-satellite (Earth-to-space) S5.388	1930-1970 FIXED MOBILE S5.388	1850-1990	1850-1990 FIXED MOBILE	RF Devices (15) Personal Communications (24) Fixed Microwave (101)
1970-1980 FIXED MOBILE S5.388					
1980-2010 FIXED MOBILE MOBILE-SATELLITE (Earth-to-space) S5.388 S5.389A S5.389B S5.389F			1990-2025	1990-2025 MOBILE-SATELLITE (Earth-to-space)	Satellite Communications (25)
2010-2025 FIXED MOBILE S5.388	2010-2025 FIXED MOBILE MOBILE-SATELLITE (Earth-to-space) S5.388 S5.389C S5.389D S5.389E S5.390	2010-2025 FIXED MOBILE S5.388		NG156	
2025B2110 SPACE OPERATION (Earth-to-space) (space-to-space) EARTH EXPLORATION-SATELLITE (Earth-to-space) (space-to-space) FIXED MOBILE S5.391 SPACE RESEARCH (Earth-to-space) (space-to-space) S5.392			2025-2110 SPACE OPERATION (Earth-to-space) (space-to-space) EARTH EXPLORATION- SATELLITE (Earth-to- Space) (space-to-space) SPACE RESEARCH (Earth- to-space) (space-to-space) S5.391 S5.392 US90 US222 US346 US347	2025-2110 FIXED NG23 NG118 MOBILE S5.391 S5.392 US90 US222 US346 US347	TV Auxiliary Broadcasting (74F) Cable TV Relay (78) Local TV Transmission (101J)

International Table			United States Table		FCC Rule Part(s)
Region 1	Region 2	Region 3	Federal Government	Non-Federal Government	
2110-2120 FIXED MOBILE SPACE RESEARCH (deep space) (Earth-to-space)			2110-2120	2110-2150 FIXED NG23 MOBILE	Public Mobile (22) Fixed Microwave (101) Note: 2110-2150 MHz must be auctioned by September 30, 2002.
S5.388			US252		
2120-2160 FIXED MOBILE	2120-2160 FIXED MOBILE Mobile-satellite (space-to-Earth)	2120-2160 FIXED MOBILE	2120-2200	US252 NG153	
S5.388	S5.388	S5.388		2150-2160 FIXED NG23	Domestic Public Fixed (21) Fixed Microwave (101)
2160-2170 FIXED MOBILE	2160-2170 FIXED MOBILE MOBILE-SATELLITE (space-to-Earth)	2160-2170 FIXED MOBILE		2160-2165 FIXED NG23 MOBILE NG153	Domestic Public Fixed (21) Public Mobile (22) Fixed Microwave (101)
S5.388 S5.392A	S5.388 S5.389C S5.389D S5.389E S5.390	S5.388		2165-2200 MOBILE-SATELLITE (space-to-Earth)	Satellite Communications (25)
2170-2200 FIXED MOBILE MOBILE-SATELLITE (space-to-Earth)				NG23 NG168	
S5.388 S5.389A S5.389F S5.392A					
2200-2290 SPACE OPERATION (space-to-Earth) (space-to-space) EARTH EXPLORATION-SATELLITE (space-to-Earth) (space-to-space) FIXED MOBILE S5.391 SPACE RESEARCH (space-to-Earth) (space-to-space)			2200-2290 SPACE OPERATION (space-to-Earth) (space-to-space) EARTH EXPLORATION- SATELLITE (space-to- Earth) (space-to-space) FIXED (line-of-sight only)	2200-2290	

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United States (US) Footnotes

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US90 In the band 2025-2110 MHz, the power flux-density at the Earth's surface produced by emissions from a space station in the space operation, Earth exploration-satellite, or space research services that is transmitting in the space-to-space direction, for all conditions and all methods of modulation, shall not exceed the following values in any 4 kHz sub-band:

- (a) -154 dBW/m² for angles of arrival above the horizontal plane (δ) of 0° to 5°,
- (b) $-154 + 0.5(\delta-5)$ dBW/m² for δ of 5° to 25°, and
- (c) -144 dBW/m² for δ of 25° to 90°.

* * * * *

US346 Except as provided by footnote US222, the use of the band 2025-2110 MHz by the Government space operation service (Earth-to-space), Earth-exploration-satellite service (Earth-to-space), and space research service (Earth-to-space) shall not constrain the deployment of the Television Broadcast Auxiliary Service, the Cable Television Relay Service, or the Local Television Transmission Service. To facilitate compatible operations between non-Government terrestrial receiving stations at fixed sites and Government earth station transmitters, coordination is required. To facilitate compatible operations between non-government terrestrial transmitting stations and Government spacecraft receivers, the terrestrial transmitters shall not be high-density systems (see Recommendations ITU-R SA.1154 and ITU-R F.1247).

US347 In the band 2025-2110 MHz, non-Government Earth-to-space and space-to-space transmissions may be authorized in the space research and Earth exploration-satellite services subject to such conditions as may be applied on a case-by-case basis. Such transmissions shall not cause harmful interference to Government and non-Government stations operating in accordance with the Table of Frequency Allocations.

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Non-Federal Government (NG) Footnotes

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NG23 Frequencies in the band 2100-2200 MHz may also be assigned to stations in the International Fixed Public Radiocommunication Services located south of 25° 30' North Latitude in the State of Florida and in U.S. insular areas in the Caribbean, except that no new assignments in the band 2150-2162 MHz will be made to such stations after February 25, 1974 and no new assignments in the band 2165-2200 MHz will be made to such stations after June 27, 2000.

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NG118 In the band 2025-2110 MHz, television translator relay stations may be authorized to use frequencies on a secondary basis to other stations in the Television Broadcast Auxiliary Service that are operating in accordance with the Table of Frequency Allocations.

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NG153 The bands 2110-2150 MHz and 2160-2165 MHz are reserved for future emerging

technologies on a co-primary basis with the fixed and mobile services. Allocations to specific services will be made in future proceedings.

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NG156 The band 1990-2025 MHz is also allocated to the fixed and mobile services on a primary basis for facilities where the receipt date of the initial application was prior to June 27, 2000, and on a secondary basis for all other initial applications. Not later than **[insert date that is ten years and 30 days after publication in the Federal Register]**, the band 1990-2025 MHz is allocated to the fixed and mobile services on a secondary basis.

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NG168 The band 2165-2200 MHz is also allocated to the fixed and mobile services on a primary basis for facilities where the receipt date of the initial application was prior to January 16, 1992, and on a secondary basis for all other initial applications. Not later than **[insert date that is ten years and 30 days after publication in the Federal Register]**, the band 2165-2200 MHz is allocated to the fixed and mobile services on a secondary basis.

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PART 74 -- EXPERIMENTAL RADIO, AUXILIARY, SPECIAL BROADCAST AND OTHER PROGRAM DISTRIBUTION SERVICES

3. The authority citation for Part 74 is revised to read as follows:

AUTHORITY: Sec. 4, 302, 303, and 307 of the Communications Act of 1934, as amended, 47 U.S.C. Sections 154, 302, 303 and 307, unless otherwise noted.

4. Section 74.602 is amended as follows:

a. Add the following subparagraphs (a)(3) and (a)(4)

* * * * *

(3) After January 1, 2000, stations may adhere to the channel plan specified in subparagraph (a) above, or to the following channel plan in Band A:

Channel A01	--	2008-2023 MHz
Channel A02	--	2023-2037.5 MHz
Channel A03	--	2037.5-2052 MHz
Channel A04	--	2052-2066.5 MHz
Channel A05	--	2066.5-2081 MHz
Channel A06	--	2081-2095.5 MHz
Channel A07	--	2095.5-2110 MHz

Broadcast Auxiliary Service, Cable Television Remote Pickup Service, and Local Television Transmission Service licensees in Nielsen Designated Market Areas 1-30 will be required to use this Band A channel plan after completion of relocation by an Emerging Technologies licensee in accordance with § 74.690. Licensees declining relocation and licensees in Nielsen Designated Market Areas 31 and higher will be required to discontinue use of the 1990-2008 MHz band when informed by a Mobile-

Satellite Service licensee that it intends to begin operations in the 1990-2008 MHz band.

(4) When Mobile-Satellite Service licensees begin operations in the 2008-2025 MHz band, stations may adhere to the channel plan specified above, but forbidden to use Channel A01, or may adhere to the following channel plan in Band A:

Channel A01	--	2025-2037.4 MHz
Channel A02	--	2037.4-2049.5 MHz
Channel A03	--	2049.5-2061.6 MHz
Channel A04	--	2061.6-2073.7 MHz
Channel A05	--	2073.7 -2085.8 MHz
Channel A06	--	2085.8-2097.9 MHz
Channel A07	--	2097.9-2110 MHz

Broadcast Auxiliary Service, Cable Television Remote Pickup Service, and Local Television Transmission Service licensees in Nielsen Designated Market Areas 1-30 will be required to use this Band A channel plan after completion of relocation by an Emerging Technologies licensee in accordance with § 74.690. Licensees declining relocation and licensees in Nielsen Designated Market Areas 31 and higher will be required to discontinue use of the 2008-2025 MHz band when informed by a Mobile-Satellite Service licensee that it intends to begin operations in the 2008-2025 MHz band.

5. Add the new Section 74.690 as follows:

§ 74.690 Transition of the 1990-2025 MHz band from the Broadcast Auxiliary Service to emerging technologies.

(a) Licensees proposing to implement Mobile-Satellite Services using emerging technologies (MSS Licensees) may negotiate with Broadcast Auxiliary Service licensees (Existing Licensees) in the 1990-2110 MHz band for the purpose of agreeing to terms under which the Existing Licensees would relocate their operations to the 2025-2110 MHz band, to other authorized bands, or to other media; or alternatively, would discontinue use of the 2008-2025 MHz band when informed by a Mobile-Satellite Service licensee that it intends to begin operations in the 2008-2025 MHz band.

(b) Existing Licensees in the 1990-2025 MHz band allocated for licensed emerging technology services will maintain primary status in these bands until an MSS Licensee completes relocation of the Existing Licensee's operations.

(c) The Commission will amend the operating license of the Existing Licensee to secondary status only if the following requirements are met:

(1) The service applicant, provider, licensee, or representative using an emerging technology guarantees payment of all relocation costs, including all engineering, equipment, site and FCC fees, as well as any reasonable additional costs that the relocated Existing Licensee might incur as a result of operation in another authorized band or migration to another medium.

(2) The MSS Licensee completes all activities necessary for implementing the replacement facilities, including engineering and cost analysis of the relocation procedure and, if radio facilities are used, identifying and obtaining, on the incumbents' behalf, new microwave or Local Television Transmission frequencies and frequency coordination; and

(3) The MSS Licensee builds the replacement system and tests it for comparability with the existing system.

(d) The Existing Licensee is not required to relocate until the alternative facilities are available to it for a reasonable time to make adjustments, determine comparability, and ensure a seamless handoff. If within one year after the relocation to new facilities the Existing Licensee demonstrates that the new facilities are not comparable to the former facilities, the MSS Licensee must remedy the defects.

(e) Subject to the terms of this subparagraph, Phase I of the relocation of Existing Licensees will be carried out in the following manner:

(1) Beginning [insert date that is ten years and 30 days after publication in the Federal Register], Existing Licensees and MSS Licensees may negotiate individually or collectively for relocation of Existing Licensees to one of the channel plans specified in § 74.602(a)(3) above. Parties may not decline to negotiate, though Existing Licensees may decline to be relocated. MSS Licensees must relocate all Existing Licensees in Nielsen Designated Market Areas 1-30 prior to beginning operations, except those Existing Licensees that decline relocation. If the parties are unable to reach a negotiated agreement, MSS Licensees may involuntarily relocate Existing Licensees after two years. As of the date that any MSS Licensee announces the beginning of operations in the 1990-2008 MHz band, licensees who are not on the new channel plan specified in § 74.602(a)(3) must discontinue use of Channel A01 (1990-2008 MHz).

(2) Before negotiating with MSS Licensees, Existing Licensees in Nielsen Designated Market Areas where there is a BAS frequency coordinator must coordinate and select a band plan for the market area. Thereafter, all negotiations must produce solutions that adhere to the market area's band plan.

(3) After the date the first MSS Licensee begins operations, MSS Licensees must relocate Existing Licensees in Nielsen Designated Market Areas 31-100 within three years, unless any Existing Licensee declines relocation.

(4) Beginning on the date any MSS Licensee announces in writing to Existing Licensees its intention to begin operations in the 2008-2025 MHz band, Existing Licensees and MSS Licensees may negotiate individually or collectively for relocation of Existing Licensees to one of the channel plans specified in § 74.602(a)(4) above. MSS Licensees must relocate all Existing Licensees in Nielsen Designated Market Areas 1-30 prior to beginning operations, except those Existing Licensees that decline relocation. If the parties are unable to reach a negotiated agreement, MSS Licensees may involuntarily relocate Existing Licensees after two years. As of the date that any MSS Licensee announces its intention to begin operations in the 2008-2025 MHz band, licensees who are not on the new channel plan specified in § 74.602(a)(4) must discontinue use of Channel A01 (2008-2023 MHz).

(5) After the date the first MSS Licensee begins operations in the 2008-2025 MHz band, MSS Licensees must relocate Existing Licensees in Nielsen Designated Market Areas 31-100 within three years, and in the remaining Nielsen Designated Market Areas within five years.

(6) Ten years after the date specified in subparagraph (e)(1), all Existing Licensees will become secondary in the 1990-2025 MHz band. Upon written demand by any MSS Licensee, Existing Licensees must cease all operations in the 1990-2025 MHz band within six months.

PART 78 – CABLE TELEVISION RELAY SERVICE

6. The authority citation for Part 78 continues to read as follows:

AUTHORITY: Secs. 2, 3, 4, 301, 303, 307, 308, 309, 48 Stat., as amended, 1064, 1066, 1081, 1082, 1083, 1084, 1085; 47 U.S.C. 152, 153, 154, 301, 303, 307, 308, 309.

7. Section 78.11(f) is amended by replacing the text "1990-2110 MHz" with the text "2025-2110 MHz."

8. Section 78.18 is amended as follows:

a. Add the following to the end of subparagraph (a)(7)

* * * * *

(3) After a licensee has been relocated in accordance with the provisions of § 78.40, operations will be in the band 2025-2110 MHz. The following channel plan will apply, subject to the provisions of §

74.604.

Frequency Band (MHz)

2025-2037.4
2037.4-2049.5
2049.5-2061.6
2061.6-2073.7
2073.7-2085.8
2085.8-2097.9
2097.9-2110

9. Add the new Section 78.40 as follows:

§ 78.40 Transition of the 1990-2025 MHz band from the Cable Television Relay Service to Emerging Technologies.

(a) Licensees proposing to implement Mobile-Satellite Services using emerging technologies (MSS Licensees) may negotiate with Cable Television Relay Service licensees (Existing Licensees) in the 1990-2110 MHz band for the purpose of agreeing to terms under which the Existing Licensees would relocate their operations to the 2025-2110 MHz band, to other authorized bands, or to other media; or alternatively, would accept a sharing arrangement with the MSS Licensee that may result in an otherwise impermissible level of interference to the Existing Licensee's operations.

(b) Existing Licensees in the 1990-2025 MHz band allocated for licensed emerging technology services will maintain primary status in these bands until an MSS Licensee completes relocation of the Existing Licensee's operations.

(c) The Commission will amend the operating license of the Existing Licensee to secondary status only if the following requirements are met:

(1) The service applicant, provider, licensee, or representative using an emerging technology guarantees payment of all relocation costs, including all engineering, equipment, site and FCC fees, as well as any reasonable additional costs that the relocated Existing Licensee might incur as a result of operation in another authorized band or migration to another medium.

(2) The MSS Licensee completes all activities necessary for implementing the replacement facilities, including engineering and cost analysis of the relocation procedure and, if radio facilities are used, identifying and obtaining, on the incumbents' behalf, new microwave or Local Television Transmission frequencies and frequency coordination; and

(3) The MSS Licensee builds the replacement system and tests it for comparability with the existing system.

(d) The Existing Licensee is not required to relocate until the alternative facilities are available to it for a reasonable time to make adjustments, determine comparability, and ensure a seamless handoff.

(e) If within one year after the relocation to new facilities the Existing Licensee demonstrates that the new facilities are not comparable to the former facilities, the MSS Licensee must remedy the defect.

(e) Subject to the terms of this subparagraph, Phase I of the relocation of Existing Licensees will be carried out in the following manner:

(1) Beginning (30 days after Federal Register publication), Existing Licensees and MSS Licensees may negotiate individually or collectively for relocation of Existing Licensees to one of the channel plans specified in § 74.602(a)(3) above. Parties may not decline to negotiate, though Existing Licensees may decline to be relocated. MSS Licensees must relocate all Existing Licensees in Nielsen Designated Market Areas 1-30 prior to beginning operations, except those Existing Licensees that decline relocation. If the parties are unable to reach a negotiated agreement, MSS Licensees may involuntarily relocate Existing Licensees after two years. As of the date that any MSS Licensee announces the beginning of

operations in the 1990-2008 MHz band, licensees who are not on the new channel plan specified in § 74.602(a)(3) must discontinue use of Channel A01 (1990-2008 MHz).

(2) Before negotiating with MSS Licensees, Existing Licensees in Nielsen Designated Market Areas where there is a BAS frequency coordinator must coordinate and select a band plan for the market area. Thereafter, all negotiations must produce solutions that adhere to the market area's band plan.

(3) After the date the first MSS Licensee begins operations, MSS Licensees must relocate Existing Licensees in Nielsen Designated Market Areas 31-100 within three years, unless any Existing Licensee declines relocation.

(4) Beginning on the date any MSS Licensee announces in writing to Existing Licensees its intention to begin operations in the 2008-2025 MHz band, Existing Licensees and MSS Licensees may negotiate individually or collectively for relocation of Existing Licensees to one of the channel plans specified in § 74.602(a)(4) above. MSS Licensees must relocate all Existing Licensees in Nielsen Designated Market Areas 1-30 prior to beginning operations, except those Existing Licensees that decline relocation. If the parties are unable to reach a negotiated agreement, MSS Licensees may involuntarily relocate Existing Licensees after two years. As of the date that any MSS Licensee announces its intention to begin operations in the 2008-2025 MHz band, licensees who are not on the new channel plan specified in § 74.602(a)(4) must discontinue use of Channel A01 (2008-2023 MHz).

(5) After the date the first MSS Licensee begins operations in the 2008-2025 MHz band, MSS Licensees must relocate Existing Licensees in the remaining Nielsen Designated Market Areas within three years.

(6) Ten years after the date specified in subparagraph (e)(1), all Existing Licensees will become secondary in the 1990-2025 MHz band. Upon written demand by any MSS Licensee, Existing Licensees must cease all operations in the 1990-2025 MHz band within six months.

10. In Section 78.101(a), the table is amended by replacing "1,990 to 2,110" in the first line with "2,025 to 2,110."

11. In Section 78.103(e), replace the table with the following:

Frequency band (MHz)	Maximum authorized band-width (MHz)
1,990 to 2,110.....	17 or 18. ¹
6,425 to 6,525.....	8 or 25.
6,875 to 7,125.....	25.
12,700 to 13,250.....	25.
17,700 to 19,700.....	80.
31,000 to 31,300.....	25 or 50.

¹ After a licensee has been relocated in accordance with § 78.40, the maximum authorized bandwidth in the frequency band 2,025 to 2,110 MHz will be 12.1/12.4 MHz.

* * * * *

12. In Section 78.111, the table is amended by replacing the first line with the following:

Frequency Band (MHz)	Frequency tolerance	
	Fixed (percent)	Mobile (percent)
1,990 to 2,110000	0.005

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PART 101 -- FIXED MICROWAVE SERVICES

13. The authority citation for Part 101 continues to read as follows:

AUTHORITY: 47 U.S.C. 154, 303.

14. At the end of Section 101.69, add the following subparagraph (d):

(d) Relocation of FMS licensees in the 2165-2200 MHz band by Mobile-Satellite Service (MSS) licensees will be subject to mandatory negotiations only. Mandatory negotiation periods are defined as follows:

- (1) Non-public safety incumbents will have a two-year mandatory negotiation period; and
- (2) Public safety incumbents will have a three-year mandatory negotiation period.

15. At the end of Section 101.73, add the following subparagraph (d):

(d) Provisions for Relocation of Fixed Microwave Licensees in the 2165-2200 MHz band. Mandatory negotiations will commence when the Mobile-Satellite Service (MSS) licensee informs the fixed microwave licensee in writing of its desire to negotiate. Mandatory negotiations will be conducted with the goal of providing the fixed microwave licensee with comparable facilities, defined as facilities possessing the following characteristics:

(1) *Throughput.* Communications throughput is the amount of information transferred within a system in a given amount of time. If analog facilities are being replaced with analog, comparable facilities provide an equivalent number of 4 kHz voice channels. If digital facilities are being replaced with digital, comparable facilities provide equivalent data loading bits per second (bps).

(2) *Reliability.* System reliability is the degree to which information is transferred accurately within a system. Comparable facilities provide reliability equal to the overall reliability of the FMS system. For digital systems, reliability is measured by the percent of time the bit error rate (BER) exceeds a desired value, and for analog or digital voice transmission, it is measured by the percent of time that audio signal quality meets an established threshold. If an analog system is replaced with a digital system, only the resulting frequency response, harmonic distortion, signal-to-noise and its reliability will be considered in determining comparable reliability.

(3) *Operating Costs.* Operating costs are the cost to operate and maintain the FMS system. MSS licensees would compensate FMS licensees for any increased recurring costs associated with the replacement facilities (*e.g.*, additional rental payments, and increased utility fees) for five years after relocation. MSS licensees could satisfy this obligation by making a lump-sum payment based on present value using current interest rates. Additionally, the maintenance costs to the FMS licensee would be equivalent to the 2 GHz system in order for the replacement system to be comparable.

16. At the end of Section 101.75(d), add the following.

FMS licensees relocated from the 2165-2200 MHz band may not be returned to their former 2 GHz channels. All other remedies specified in this paragraph are available to FMS licensees relocated from the 2165-2200 MHz band, and may be invoked whenever the FMS licensee demonstrates that its replacement facility is not comparable, subject to no time limit.

17. Add a new Section 101.83 as follows:

§ 101.83 Reimbursement of relocation expenses in the 2115-2150 MHz and 2165-2200 MHz bands.

(a) Whenever an ET licensee (including Mobile-Satellite Service licensees) in the 2115-2150 MHz or 2165-2200 MHz bands relocates an incumbent paired microwave link with one path in the 2115-2150 MHz band, and the paired path in the 2165-2200 MHz band, the ET licensee is entitled to reimbursement of 50% of its relocation costs from any subsequently entering ET licensee which would have been required to relocate the same fixed microwave link.

(b) The subsequently entering ET licensee must reimburse the relocating ET licensee before the subsequently entering licensee may begin operations in these bands, unless the subsequently entering ET licensee can demonstrate that, according to established interference criteria, it would not have interfered with the microwave link in question.

(c) The total costs of which 50% is to be reimbursed will not exceed \$250,000 per paired fixed microwave link relocated, nor \$150,000 if a new or modified tower is required.

APPENDIX B

Final Regulatory Flexibility Analysis

As required by the Regulatory Flexibility Act (RFA),²⁵³ an Initial Regulatory Flexibility Analysis (IRFA) was incorporated into the *First Report and Order and Further Notice of Proposed Rule Making (First R&O/Further Notice)*²⁵⁴ and the *Memorandum Opinion and Order and Third Notice of Proposed Rule Making and Order (Third Notice)*²⁵⁵ in this docket, ET Docket No. 95-18. The Commission sought written comment on the proposals in the *First R&O/Further Notice* and the *Third Notice*, including comment on the IRFAs. The present Final Regulatory Flexibility Analysis (FRFA) in this *Second Report and Order and Second Memorandum Opinion and Order (Second R&O/Second MO&O)* conforms to the RFA.²⁵⁶

A. Need for, and Objectives of, this *Second R&O/Second MO&O*.

This *Second R&O/Second MO&O* establishes rules to govern the relocation of Broadcast Auxiliary Service (BAS), Local Television Transmission Service (LTTS), and Cable Television Relay Service (CARS) licensees from the 1990-2025 MHz band to the remainder of the BAS band, at 2025-2110 MHz. The 1990-2025 MHz band has been reallocated to the Mobile-Satellite Service (MSS). This *Second R&O/Second MO&O* also establishes rules to govern the relocation of Fixed Service (FS) licensees from the 2165-2200 MHz spectrum, reallocated to the MSS, to FS bands above 4 GHz. These rules are designed to ensure an orderly and expeditious transition of these licensees from the 2 GHz spectrum so that MSS operations may be conducted in a designated segment of the spectrum. At the same time, the rules are designed to ensure that incumbent BAS, LTTS, CARS, and FS licensees suffer no harm from relocation.

B. Summary of Significant Issues Raised in Comments in Response to the IRFAs.

No comments were filed in response to the IRFAs. Nonetheless, the Commission considered the impact of our rules governing the relocation of the BAS, LTTS, CARS, and FS licensees, some of whom may be small entities, from the 2 GHz spectrum. This 2 GHz spectrum was reallocated to the MSS, none of whose licensees will be small entities. The Commission considered several different relocation scenarios, some of which would have imposed the economic burden of relocation on BAS, LTTS, CARS, and FS licensees, including small entities. The Commission rejected a variety of scenarios which would have shifted some or all of the economic burden of relocation from MSS licensees to BAS, LTTS, CARS, and FS licensees. See Section E *infra* for a discussion of the alternatives considered by the Commission.

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

²⁵³ See 5 U.S.C. § 603. The RFA, see 5 U.S.C. § 601 *et. seq.*, has been amended by the Contract With America Advancement Act of 1996, Pub. L. No. 104-121, 110 Stat. 847 (1996) (CWAAA). Title II of the CWAAA is the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA).

²⁵⁴ *First R&O/Further Notice*, 12 FCC Rcd 7388, Appx. E (*Further Notice IRFA*). Collectively, the *Further Notice IRFA* and the *Third Notice IRFA* will be referred to as the IRFAs.

²⁵⁵ *Third Notice*, 13 FCC Rcd 23,949, Appx. A (*Third Notice IRFA*). Collectively, the *Further Notice IRFA* and the *Third Notice IRFA* will be referred to as the IRFAs.

²⁵⁶ See 5 U.S.C. § 604.

The RFA directs agencies to provide a description of, and, where feasible, an estimate of the number of small entities that may be affected by the proposed rules, if adopted.²⁵⁷ The RFA defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small business concern" under section 3 of the Small Business Act.²⁵⁸ 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.²⁵⁹ The term "small entity" also has the same meaning as "small governmental jurisdiction," which means "governments of cities, counties, towns, townships, villages, school districts, or special districts, with a population of less than 50,000."²⁶⁰

(a) **BAS, LTTS, and CARS Licensees:** This service involves a variety of transmitters, generally used to relay broadcast programming to the public (through translator and booster stations) or within the program distribution chain (from a remote news gathering unit to the studio). CARS includes transmitters generally used to relay cable programming within cable television system distribution systems. BAS and LTTS licensees are entities classified by the SBA as Category 4833 (Television Broadcasting Stations), which are small businesses if they have annual revenues below 10.5 million dollars.²⁶¹ CARS licensees are classified as Category 4841 (Cable and Other Pay Television Services), which are small businesses if they have annual revenues below 11 million dollars.²⁶²

The Commission estimates that there are a total of approximately 2200 BAS, LTTS, and CARS licensees in the United States. Neither the Commission nor the Department of Commerce collect financial information on any broadcast facility, including these auxiliary facilities. We believe, however, that few, if any, of these licensees could be classified as small businesses. Most auxiliary transmitters are owned by parent stations that would likely have annual revenues that exceed the SBA maximum to be designated as a small business (\$10.5 million for a TV station and \$11 million for a cable system). Furthermore, they do not meet the Small Business Act's definition of a "small business concern" because they are not independently owned and operated.

(b) **MSS Licensees:** The Commission has not developed a definition of small entities applicable to MSS licensees. Therefore, the applicable definition of small entity is the definition under the SBA rules applicable to Category 4899 (Communications Services "Not Elsewhere Classified" (NEC)). This definition provides that a small entity is one with \$11.0 million or less in annual receipts.²⁶³ Eight potential MSS licensees will be affected by this rule making proceeding. Given the extremely high start-up costs for MSS companies, none will be small entities.

(c) **FS Licensees:** The Commission has not developed a definition of small entities applicable to FS microwave licensees. Licensees in this service are State and local governments and SBA

²⁵⁷ 5 U.S.C. § 603(b)(3).

²⁵⁸ *Id.* § 601(3).

²⁵⁹ *Id.* at § 632.

²⁶⁰ *Id.* at § 601(5).

²⁶¹ 13 C.F.R. § 121.201, Standard Industrial Classification(SIC) Code 4833.

²⁶² *Id.*, SIC Code 4812.

²⁶³ *Id.*, SIC Code 4899.

Categories 4813 (Telephone Communications, Except Radiotelephone),²⁶⁴ 4619 (Pipelines, N.E.C.),²⁶⁵ 4911 (Electric Services) and other utility companies,²⁶⁶ and Major Group 47 (Transportation Services, *i.e.*, railroads).²⁶⁷ Therefore, the applicable definitions of small entity are the definition under the SBA rules applicable to these activities. This definition provides that small entities are Telephone Communications companies employing fewer than 1500 employees, Pipeline companies with annual receipts of less than \$25 million, Electric Services companies generating less than 4 million megawatt hours annually, and Transportation Services, including railroads, with annual receipts of less than \$5 million annually. Licensees in the FS also include State and local governments with populations of less than 50,000.

Some FS licensees are likely to be small entities. Using Census Bureau data we estimate that 81,600 of the State and local Governments are small entities.²⁶⁸ There are approximately 4200 FS microwave links licensed to Telephone Communications companies. The Commission has no data on how many of these links belong to each licensee. Therefore, the total number of telephone licensees must be 4200 or less, of whom a minority may be small entities. Approximately 4000 FS microwave links are licensed to Pipeline companies, Electric Services companies, Transportation Services including railroads, and local and State governments. The Commission has no data on how many of these links belong to each licensee. Therefore, the total number of Pipeline companies, Electric Services companies, Transportation Services including railroads, and local and State government licensees must be 4000 or less, of whom a minority may be small entities.

(d) Using the best data available, the Commission estimates that a large majority of BAS, LTTS, CARS, and FS licensees are not small entities. Because of the high costs attendant to the start-up of MSS operations, none of the eight MSS licensees affected by this rule making will be small entities.

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

The adopted rules would require affected BAS, LTTS, CARS, and FS licensees, some of whom may be small entities, to negotiate with MSS licensees for relocation (including replacement or retuning of equipment) or rechannelization or both. These negotiations would include negotiating timetables for relocation and costs. These negotiations are likely to require the skills of accountants and engineers to evaluate the economic and technical requirements of relocation, and of attorneys or other negotiators to conduct negotiations. The estimated cost per incumbent BAS, LTTS, CARS, or FS licensee of relocation negotiations is \$2000 to \$8000. The Commission has permitted BAS, LTTS, CARS, and FS licensees to negotiate collectively for relocation. Collective negotiations, if employed by these licensees, will reduce the costs of negotiation for each licensee.

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

The Commission decided that new MSS licensees, none of whom will be small entities, will be

²⁶⁴ *Id.*, SIC Code 4813.

²⁶⁵ *Id.*, SIC Code 4619.

²⁶⁶ *Id.*, SIC Code 4911.

²⁶⁷ *Id.*, SIC Major Group 47.

²⁶⁸ *See* 5 U.S.C. § 601(5).

required to relocate or rechannelize incumbent BAS, LTTS, CARS, and FS licensees in the 2 GHz band, some of whom are likely to be small entities, at the expense of the new MSS licensees. The Commission considered the alternative of requiring current BAS, LTTS, CARS, and FS licensees in the 2 GHz band to relocate or rechannelize at their own expense. The Commission rejected this alternative as excessively burdensome on these incumbent licensees, including small entities, and not in the public interest.

MSS commenters advocated requiring BAS, LTTS, and CARS licensees to finance their own relocation as their equipment depreciated and they purchased new equipment, claiming that the total costs of relocation, added to the high cost of launching satellites, would cripple the nascent MSS industry. MSS commenters also asserted, however, that there is a huge, underserved demand for MSS. We believe that MSS licensees will build the cost of relocating BAS, LTTS, and CARS licensees into their financial plans, and still will be able to provide service at a profit. In the alternative, MSS may choose to defer expeditious access to the spectrum currently heavily used by BAS, LTTS, and CARS licensees and defer deployment of MSS systems for ten years, in which case no relocation or rechannelization would be required.

MSS commenters advocated requiring MSS licensees to pay only the depreciated value of the equipment of incumbent FS licensees, some of which may be small entities. The Commission rejected this position, adhering to our requirement that MSS licensees must provide relocated incumbent FS licensees with comparable facilities in the bands to which the FS licensees are relocated.

In the case of involuntary relocation of BAS, LTTS, CARS, and FS licensees, the Commission applied the requirements of our *Emerging Technologies* policies: (1) payment of all relocation expenses by the MSS operator, (2) full comparability of replacement facilities, and (3) the right of the incumbents to demand that MSS licensees cure any defects, should the replacement facilities prove not to be fully comparable after relocation. The relocation requirements adopted by the Commission will guarantee that BAS, LTTS, CARS, and FS licensees, some of whom are likely to be small entities, will suffer no, or minimal, economic impact as a result of relocation.

Report to Congress: The Commission will send a copy of the *Second R&O/Second MO&O*, including this FRFA, in a report to be sent to Congress pursuant to the SBREFA, *see* 5 U.S.C. § 801(a)(1)(A). In addition, the Commission will send a copy of the *Second R&O/Second MO&O*, including the FRFA, to the Chief Counsel for Advocacy of the Small Business Administration. A copy of the *Second R&O/Second MO&O* and FRFA (or summaries thereof) will also be published in the Federal Register. *See* 5 U.S.C. § 604(b).

**SEPARATE STATEMENT OF COMMISSIONER HAROLD FURCHTGOTT-ROTH
Dissenting in Part**

Re: Amendment of Section 2.106 of the Commission's Rules to Allocate Spectrum at 2 GHz for Use by the Mobile-Satellite Service ET Docket No. 95-18; FCC 00-233 (rel. July 3, 2000)

In the recent 18 GHz Report and Order,²⁶⁹ I set forth some proposals for modifying the Commission's relocation policy.²⁷⁰ Those proposals are equally relevant here. The potentially extensive spectrum needs of the 2 GHz satellite community may require extensive relocation in both the up- and down-links. The multitude of transactions that will be necessary before satellite service can be offered cries out for clear, efficient, and predictable relocation procedures and policies. Thus I continue to urge my colleagues to explore other relocation policy options, such as those described in my prior Separate Statement. Based on these concerns, I respectfully dissent in part from the relocation policy portion of this item.

²⁶⁹ See *Re: Redesignation of the 17.7-19.7 GHz Frequency Band, Blanket Licensing of Satellite Earth Stations in the 17.7-20.2 GHz and 27.5-30.0 Frequency Bands, et al.* IB Docket No. 98-172, RM-9005, RM-9118 (rel. June 21, 2000) (18 GHz Report and Order).

²⁷⁰ See Separate Statement of Harold Furchtgott-Roth, Approving in Part, Dissenting in Part, *18 GHz Report and Order*, *supra* note 1.