

apply to the 1970-1990 and 2160-2180 MHz bands. AMSC states that these bands were allocated internationally at the 1992 World Administrative Radio Conference to the mobile satellite service (MSS) and plans to petition to have them allocated to MSS domestically in the near future. AMSC argues that the relocation rules adopted in this proceeding were developed for local markets and terrestrial technologies and that they may not be feasible for MSS, which operates nationwide or, in some cases, worldwide.

69. This proceeding establishes relocation rules for the emerging technologies bands and does not address what types of services should be authorized in these bands. Other rule making proceedings, such as 2 GHz PCS, address specific services. Thus, AMSC's request is beyond the scope of this proceeding and therefore is not being adopted but may be considered in a later proceeding that addresses MSS.

PROCEDURAL MATTERS

70. Ordering Clauses. Accordingly, IT IS ORDERED, that the petitions for clarification or reconsideration filed to the Second R&Q by Comsearch, Digital Microwave Corporation, and Western Tele-Communications, Inc. and the petitions for clarification or reconsideration filed to the Third R&Q by the American Association of State Highway and Transportation Officials Special Committee on Communications, Public Safety Communications Council, Public Safety Microwave Committee, Forestry-Conservation Communications Association, Association of American Railroads, Unlicensed PCS Ad Hoc Committee for 2 GHz Microwave Transition and Management, Utilities Telecommunications Council, Apple Computer, and AMSC Subsidiary Corporation ARE GRANTED to the degree stated above and are DENIED in all other respects.

71. Further, IT IS ORDERED, that Parts 21, 22, and 94 of the Commission's Rules and Regulations ARE AMENDED as specified in the Appendix, effective 30 days after publication in the Federal Register. This action is taken pursuant to Sections 4(i), 7(a), 303(c), 303(g), and 303(r), of the Communications Act of 1934, as amended, 47 U.S.C. Sections 154(i), 157(a), 303(c), 303(g), and 303(r).

72. IT IS FURTHER ORDERED, that this proceeding is TERMINATED.

FEDERAL COMMUNICATIONS COMMISSION



William F. Caton
Acting Secretary

Appendix: Final Rules

I. Part 21 of Title 47 of the Code of Federal Regulations is amended as follows:

PART 21 - DOMESTIC PUBLIC FIXED RADIO SERVICES

1. The authority citation in Part 21 continues to read:

AUTHORITY: Secs. 1, 2, 4, 201-205, 208, 215, 218, 303, 307, 313, 314, 403, 404, 410, 602; 48 Stat. as amended, 1064, 1066, 1070-1073, 1076, 1077, 1080, 1082, 1083, 1087, 1094, 1098, 1102; 47 U.S.C. 151, 154, 201-205, 208, 215, 218, 303, 307, 313, 314, 403, 404, 602; 47 U.S.C. 552.

2. Subpart B is amended by revising Sections 21.50(a) and 21.50(b) to read as follows:

§ 21.50 Transition of the 2.11-2.13 and 2.16-2.18 GHz bands from Domestic Public Fixed Radio Services to emerging technologies.

(a) Licensees proposing to implement services using emerging technologies (ET Licensees) may negotiate with Domestic Public Fixed Radio Service licensees (Existing Licensees) in these bands for the purpose of agreeing to terms under which the Existing Licensees would relocate their operations to other fixed microwave bands or to other media, or alternatively, would accept a sharing arrangement with the ET Licensee that may result in an otherwise impermissible level of interference to the existing licensee's operations. ET Licensees may also negotiate agreements for relocation of the Existing Licensees' facilities within the 2 GHz band in which all interested parties agree to the relocation of the Existing Licensee's facilities elsewhere within these bands. "All interested parties" includes the incumbent licensee, the emerging technology provider or representative requesting and paying for the relocation, and any emerging technology licensee of the spectrum to which the incumbent's facilities are to be relocated.

(b) Domestic Public Fixed Radio licensees in bands allocated for licensed emerging technology services will maintain primary status in these bands until two years after the Commission commences acceptance of applications for an emerging technology services, and until one year after an emerging technology service licensee initiates negotiations for relocation of the fixed microwave licensee's operations or, in bands allocated for unlicensed emerging technology services, until one year after an emerging technology unlicensed equipment supplier or representative initiates negotiations for relocation of the fixed microwave licensee's operations. When it is necessary for an emerging technology provider or representative of unlicensed

device manufacturers to negotiate with a fixed microwave licensee with operations in spectrum adjacent to that of the emerging technology provider, the transition schedule of the entity requesting the move will apply.

* * * * *

3. Subpart C is amended by revising Section 21.120(e) to read as follows:

§ 21.120 Authorization of transmitters.

* * * * *

(e) After July 15, 1996, the manufacture (except for export) or importation of equipment employing digital modulation techniques in the 3700-4200, 5925-6425, 6525-6875, 10,550-10,680, and 10,700-11,700 MHz bands must meet the minimum payload capacity requirements of Section 21.122(a)(3).

* * * * *

4. Subpart I is amended by revising Section 21.701(d) and adding Section 21.701(m) to read as follows:

§ 21.701 Frequencies.

* * * * *

(d) 3,700 to 4,200 MHz. 20 MHz maximum authorized bandwidth.

20 MHz bandwidth channels:

Transmit (receive) (MHz)	Receive (transmit) (MHz)
3710	3750
3730	3770
3790	3830
3810	3850
3870	3910
3890	3930
3950	3990
3970	4010
4030	4070
4050	4090
4110	4150
4130	4170
n/a	4190 1

1 This frequency may be assigned for unpaired use.

* * * * *

(m) In the 3700-4200, 5925-6425, 6525-6875, 10,550-10,680, and 10,700-11,700 MHz bands point-to-point operations on other than the listed frequencies may be authorized where it is shown that the objectives or requirements of the interference criteria prescribed in Section 94.63 could not otherwise be met to resolve the interference problems.

* * * * *

II. Title 47 of the Code of Federal Regulations, Part 22, is amended to read as follows:

1. The authority citation continues to read as follows:

AUTHORITY: 47 U.S.C. 154, 303, unless otherwise noted. and 307, unless otherwise noted.

2. Subpart B is amended by revising Sections 22.50(a) and 22.50(b) to read as follows:

§ 22.50 Transition of the 2.11-2.13 and 2.16-2.18 GHz bands from Public Mobile Service to emerging technologies.

(a) Licensees proposing to implement services using emerging technologies (ET Licensees) may negotiate with Public Mobile Service licensees (Existing Licensees) in these bands for the purpose of agreeing to terms under which the Existing Licensees would relocate their operations to other fixed microwave bands or to other media, or alternatively, would accept a sharing arrangement with the ET Licensee that may result in an otherwise impermissible level of interference to the existing licensee's operations. ET Licensees may also negotiate agreements for relocation of the Existing Licensees' facilities within the 2 GHz band in which all interested parties agree to the relocation of the Existing Licensee's facilities elsewhere within these bands. "All interested parties" includes the incumbent licensee, the emerging technology provider or representative requesting and paying for the relocation, and any emerging technology licensee of the spectrum to which the incumbent's facilities are to be relocated.

(b) Public Mobile Service licensees in bands allocated for licensed emerging technology services will maintain primary status in these bands until two years after the Commission commences acceptance of applications for an emerging technology service, and until one year after an emerging technology service

licensee initiates negotiations for relocation of the fixed microwave licensee's operations or, in bands allocated for unlicensed emerging technology services, until one year after an emerging technology unlicensed equipment supplier or representative initiates negotiations for relocation of the fixed microwave licensee's operations. When it is necessary for an emerging technology provider or representative of unlicensed device manufacturers to negotiate with a fixed microwave licensee with operations in spectrum adjacent to that of the emerging technology provider, the transition schedule of the entity requesting the move will apply.

* * * * *

III. Title 47 of the Code of Federal Regulations, Part 94, is amended as follows:

PART 94 - PRIVATE OPERATIONAL-FIXED MICROWAVE SERVICE

1. The authority citation in Part 94 continues to read:

AUTHORITY: Secs. 4, 303, 48 Stat., as amended, 1966, 1982; 47 U.S.C. 154, 303, unless otherwise noted.

2. Subpart C is amended by revising Sections 94.59(a), 94.59(b), 94.59(f), 94.65(g), and 94.81(c) to read as follows:

§ 94.59 Transition of the 1.85-1.99, 2.13-2.15, and 2.18-2.20 GHz bands from Private Operational-Fixed Microwave Service to emerging technologies.

(a) Licensees proposing to implement services using emerging technologies (ET Licensees) may negotiate with Private Operational-Fixed Microwave Service licensees (Existing Licensees) in these bands for the purpose of agreeing to terms under which the Existing Licensees would relocate their operations to other fixed microwave bands or to other media, or alternatively, would accept a sharing arrangement with the ET Licensee that may result in an otherwise impermissible level of interference to the existing licensee's operations. ET Licensees may also negotiate agreements for relocation of the Existing Licensees' facilities within the 2 GHz band in which all interested parties agree to the relocation of the Existing Licensee's facilities elsewhere within these bands. "All interested parties" includes the incumbent licensee, the emerging technology provider or representative requesting and paying for the relocation, and any emerging technology licensee of the spectrum to which the incumbent's facilities are to be relocated.

(b) Private Operational-Fixed Microwave Service licensees, with the exception of public safety facilities defined in paragraph (f) of this section, in bands allocated for licensed

emerging technology services will maintain primary status in these bands until two years after the Commission commences acceptance of applications for an emerging technology service (two-year voluntary negotiation period), and until one year after an emerging technology service licensee initiates negotiations for relocation of the fixed microwave licensee's operations (one-year mandatory negotiation period) or, in bands allocated for unlicensed emerging technology services, until one year after an emerging technology unlicensed equipment supplier or representative initiates negotiations for relocation of the fixed microwave licensee's operations (one-year mandatory negotiation period). When it is necessary for an emerging technology provider or representative of unlicensed device manufacturers to negotiate with a fixed microwave licensee with operations in spectrum adjacent to that of the emerging technology provider, the transition schedule of the entity requesting the move will apply. Public safety facilities defined in paragraph (f) of this section will maintain primary status in these bands until four years after the Commission commences acceptance of applications for an emerging technology service (four-year voluntary negotiation period), and until one year after an emerging technology service licensee or an emerging technology unlicensed equipment supplier or representative initiates negotiations for relocation of the fixed microwave licensee's operations (one-year mandatory negotiation period).

* * * * *

(f) Public safety facilities subject to the four-year voluntary and one-year mandatory negotiation periods, are those that the majority of communications carried are used for police, fire, or emergency medical services operations involving safety of life and property. The facilities within this exception are those Part 94 facilities currently licensed on a primary basis pursuant to the eligibility requirements of Section 90.19, Police Radio Service; Section 90.21, Fire Radio Service; Section 90.27, Emergency Medical Radio Service; and Subpart C of Part 90, Special Emergency Radio Services. Licensees of other Part 94 facilities licensed on a primary basis under the eligibility requirements of Part 90, Subparts B and C, are permitted to request similar treatment upon demonstrating that the majority of the communications carried on those facilities are used for operations involving safety of life and property.

* * * * *

§ 94.65 Frequencies.

* * * * *

(g) 3.700 to 4.200 MHz. 20 MHz maximum authorized bandwidth.

20 MHz bandwidth channels:

Transmit (receive) (MHz)	Receive (transmit) (MHz)
3710	3750
3730	3770
3790	3830
3810	3850
3870	3910
3890	3930
3950	3990
3970	4010
4030	4070
4050	4090
4110	4150
4130	4170
n/a	4190 1

1 This frequency may be assigned for unpaired use.

* * * * *

§ 94.81 Authorization of microwave equipment.

* * * * *

(c) After July 15, 1996, the manufacture (except for export) or importation of equipment employing digital modulation techniques in the 3700-4200, 5925-6425, 6525-6875, 10,550-10,680, and 10,700-11,700 MHz bands must meet the minimum payload capacity requirements of Section 21.122(a)(3).

Separate Statement
of
Commissioner James H. Quello

Re: In the Matter of Redevelopment of Spectrum to Encourage Innovation in the Use of New Telecommunications Technologies, ET Docket No. 92-9 (RM-7981 & RM-8004)

I agree with the conclusion in this Memorandum Opinion and Order that the incumbents, including public safety entities, in the 1.8 - 2.2 GHz band will likely experience difficulty sharing this frequency band with the new entrants, including PCS providers. I have concerns about the process by which the Commission came to this conclusion and the procedure for relocating these critical public safety communication service providers. In light of our previous decision to grandfather indefinitely a narrowly defined class of public safety entities, I believe that this Commission should have apprised the public safety community of this impending change. The Commission staff could have worked with representatives of the police, fire, and emergency medical communications providers to explore other options such as transition timeframes and, in some cases, technical ability to share the band. I am hopeful that the combination of a voluntary and mandatory five-year total period of negotiation together with the requirement that the new entrants pay for alternative communications systems acceptable to the displaced public safety providers will ameliorate the disruptive effects of their eventual removal from this spectrum band. Nevertheless, these procedures may not be adequate in every situation. For example, in rural communities it may be possible to design new PCS systems around the less densely used existing public safety communications microwave links, while in heavily congested urban environments complete relocation of public safety equipment may be the only technically viable option. Before removal of public safety from the new technology band, the Commission must assure the public safety community that there is spectrum available for their relocation and that the transition will not cost public safety entities additional money or disrupt the provision of their essential services.

SEPARATE STATEMENT

OF

COMMISSIONER ANDREW C. BARRETT

**RE: REDEVELOPMENT OF SPECTRUM TO ENCOURAGE INNOVATION IN THE USE
OF NEW TELECOMMUNICATIONS TECHNOLOGIES [ET DOCKET 92-9]**

Today, we adopt an Order which clarifies and refines the availability of spectrum for emerging technologies. This action on reconsideration generally provides more flexibility for moving incumbent fixed-microwave users within or from emerging technology bands, and provides more flexibility for relocation band channel pairings. I write separately to express my concern that the five-year relocation plan for public safety entities does not result in any harm to their ability to continue to operate or serve the public in any way. Although I support the various relocation safeguards for public safety entities delineated in this reconsideration Order, it is not my intent to support any actions which will harm or interrupt public safety operations. Thus, if public safety entities, as defined by this reconsideration Order, believe that additional procedural safeguards are required to support their ability to operate without disruption, then I will closely review the need for further reconsideration in this regard. When the Commission undertakes decisions such as this on its own motion, particularly where it reverses a prior Order, then I am prepared for the possibility of additional action upon further reconsideration. I will monitor the response to this reconsideration Order in order to assess the need for such action here.