Commodity	Parts per million
Barley, bran	5.0
Cattle, fat	0.05
Cattle, meat	0.02
Cattle, meat byproducts	0.05
Corn, field, forage	0.7
Corn, field, refined oil	2.5
Corn, field, stover	5.0
Corn, pop, stover	5.0
Corn, sweet, forage	10
Corn, sweet, kernel + cob with husks removed	0.03
Corn, sweet, stover	15
* * * * *	
Egg	0.02
Fruit, pome, Group 11	0.2
Goat, fat	0.05
Goat, meat	0.02
Goat, meat byproducts	0.05
Grain, aspirated fractions	65
Grain, cereal, Group 15, except sweet corn	1.0
Hog, fat	0.05
Horse, fat	0.05
Horse, meat	0.02
Horse, meat byproducts	0.05
Lychee*	0.2
Milk, fat (reflecting 0.02 ppm in whole milk)	0.1
Nut, tree, Group 14	0.1
Onion, dry bulb	0.1
Onion, green	1.5
Poultry, fat	0.05
Poultry, meat	0.02
Poultry, meat byproducts	0.02
Radish tops	4.0
Rapeseed	0.2
Rice, hulls	2.5
Rye, bran	5.0
Sheep, fat	0.05
Sheep, meat	0.02
Sheep, meat byproducts	0.05
Sorghum, grain forage	0.5
Sorghum, grain stover	1.0
Soybean, seed	0.1
Soybean, hulls	0.2
Starfruit*	0.2
Sunflower seed	0.1
* * * * *	
Vegetable, cucurbit, Group 9	0.2
Vegetable, fruiting, Group 8	0.3
Vegetable, root, except sugar beet, Subgroup IB	0.2
Vegetable, tuberous and corm, Subgroup IC	0.04
Wheat, bran	5.0

*There are no U.S. registrations for use of deltamethrin on starfruit and lychee.

* * * * *

[FR Doc. 04–24040 Filed 10–26–04; 8:45 am]

BILLING CODE 6560–50–S

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Parts 15, 74, 78, and 101

[ET Docket Nos. 00–258, 95–18; FCC 04–219]

Advanced Wireless Services

AGENCY: Federal Communications Commission.

ACTION: Final rule.

SUMMARY: In this document, the Commission found that the bands 1915–1920 MHz paired with 1995–2000 MHz and 2020–2025 MHz paired with 2175–2180 MHz were well suited to provide additional spectrum for AWS use and designated these paired bands for such use. The Commission also modified the rules pertaining to unlicensed PCS service in the 1920–1930 MHz band in order to provide additional flexibility to users of the band to offer both voice and data services using a variety of technologies. The *Third Memorandum Opinion and Order* denies petitions for rulemaking related to the reallocation to AWS in previous rulemakings and the *Fifth Memorandum Opinion and Order* clarifies rules governing relocation of FS licensees.

DATES: Effective November 26, 2004.

FOR FURTHER INFORMATION CONTACT: Shameeka Hunt or Priya Shrinivasan, Office of Engineering and Technology, (202) 418–2472.

SUPPLEMENTARY INFORMATION: This is a summary of the Commission's *Sixth Report and Order, Third Memorandum Opinion and Order, and Fifth Memorandum Opinion and Order,* ET Docket Nos. 00–258 and 95–18, FCC 04–219, adopted September 9, 2004, and released September 22, 2004. The full text of this Commission decision is available on the Commission's Internet site at *http://www.fcc.gov.* It is available for inspection and copying during normal business hours in the FCC Reference Information Center, Room CY–A257, 445 12th Street, SW., Washington, DC 20554. The complete text of this document also may be purchased from the Commission's copy contractor, Best Copy and Printing, Inc., Room CY-B402, 445 12th Street, SW., Washington, DC 20554. Alternate formats are available to persons with disabilities by contacting Brian Millin at (202) 418–7426 or TTY (202) 418–7365.

Summary of the Report and Order

1. In the *Sixth Report and Order (Sixth R&O and Third MO&O*) in ET Docket No. 00–258, the Commission continues its ongoing efforts to promote spectrum utilization and efficiency by evaluating spectrum that may be suitable for the provision of new services, including Advanced Wireless Services (AWS). In the *Sixth R&O,* we find that the bands 1915–1920 MHz paired with 1995–2000 MHz and 2020–2025 MHz paired with 2175–2180 MHz—which were all previously reallocated for Fixed and Mobile services—are well suited to provide additional spectrum for AWS use and we designate these paired bands for such use. This action will provide an additional twenty megahertz of spectrum for the introduction of new services and technology. We also modified the rules pertaining to unlicensed PCS services in the 1920–1930 MHz band in order to provide additional flexibility to users of the band to offer both voice and data services using a variety of technologies.

2. The *Sixth R&O* identifies two five + five megahertz spectrum blocks that are especially well suited for AWS use, and find that such a designation will maximize the potential use of the spectrum and promote the deployment of high value service offerings. Specifically, we redesignate the 1915–1920 MHz and 1995–2000 MHz, as well as the 2020–2025 MHz and 2175–2180 MHz spectrum blocks as paired bands suitable for the introduction of new technologies.

A. 1915–1920 MHz and 1995–2000 MHz Bands

3. The Commission concludes that AWS operations in the 1915–1920 MHz band are technically feasible with a ten megahertz frequency separation between Broadband PCS mobile and base operations. We recognize, that additional technical constraints may need to be placed on AWS to avoid impairing incumbent PCS operations. Although we conclude here that this band will be designated for AWS, one goal of the *AWS 2 GHZ Service Rules NPRM* is to adopt technical rules that will protect existing PCS operations from interference.

4. The Commission also concluded that AWS operations can be deployed in the 1995–2000 MHz band. Several parties contend that technical constraints will need to be placed on new AWS operations in the 1995–2000 MHz band in order to avoid interference to adjacent MSS operations in the 2020–2025 MHz band. However, we note that prior to the reallocation of MSS spectrum in the 1990–2000 MHz band to fixed and mobile services, existing Broadband PCS was immediately adjacent to the MSS. Thus, by redesignating the 1995–2000 MHz band

for AWS, fixed and mobile services will remain adjacent to MSS. Because we previously determined that PCS can exist adjacent to MSS, we likewise find that the 1995–2000 MHz band is suitable for an AWS designation. As with the 1915–1920 MHz band, we will consider specific technical requirements that are necessary for new AWS entrants as part of the *AWS 2 GHZ Service Rules NPRM.*

Redesignation

5. Based on the Commission's determination that additional spectrum is needed for AWS use, and because of the characteristics of the 1915–1920 MHz band that make it well suited for such use, we conclude that such a designation will promote efficient use of the spectrum, allow for the rapid introduction of high-value services, and is otherwise preferable to the other option that has been put forth—introduction of isochronous UPCS rules into the band. Based on the discussions, the Commission found that it is technically feasible to introduce AWS in the band without impairing incumbent PCS with a separation distance between the Broadband PCS mobile and base transmit bands of ten megahertz, and we intend to develop technical rules to ensure that AWS in this band will not interfere with existing PCS operations. Further, the Commission concludes that, given the opportunity, licensees and manufacturers will develop equipment and business plans that put this spectrum to use that will benefit the public. For these reasons, and given the lack of unlicensed use of the 1915–1920 MHz band under the existing rules, the Commission finds that the public interest is best served by redesignating five megahertz of spectrum in the 1915–1920 MHz band for AWS on a primary basis to support the types of high powered mobile applications associated with AWS and Broadband PCS expansion and pairing it with the five megahertz of spectrum at 1995–2000 MHz that we previously designated for AWS. Accordingly, we modify the Table of Allocations to reflect the applicable rule parts for these services, and update Part 15 rules to remove the 1915–1920 MHz band from asynchronous UPCS use. Because their pleadings are inconsistent with the AWS designation for the 1915–1920 MHz band we adopted, we deny the waiver petitions from Lucent, Ascom, Alaska Power, RBM, and UTStarcom & Drew University. We likewise deny the petitions for rulemaking from WINForum and UTStarcom.

B. 2020–2025 MHz and 2175–2180 MHz Bands

6. The Commission recognizes that many of the comments have been outdated by more recent developments in this proceeding. For example, some of the bands identified by commenters are no longer available to be paired. We also reject those comments that would have us make the 2020–2025 MHz band available for Federal Government operations because we have already proposed relocation procedures that would not require Federal Government relocation into the band. Moreover, such a designation would limit use of this spectrum by the public and would require us to re-evaluate our BAS relocation procedures to accommodate the entry of Federal Government users in the band. We also disagree with those commenters that support relocating displaced UPCS to the 2020–2025 MHz band, given our previous analysis of asynchronous UPCS operations, the conclusion that there are no current operations to be displaced, and our findings that additional AWS spectrum will promote new technologies and services, make efficient use of the spectrum, and use the spectrum to its highest potential.

7. As part of our decision to redesignate the 2020–2025 MHz and 2155–2180 MHz bands in the *AWS Third R&O,* we also proposed options for pairing the 2020–2025 MHz band with spectrum in the 2155–2180 MHz band for new Fixed and Mobile services, including AWS. Because these bands have been redesignated for AWS, we find the 2020–2025 MHz band suitable for pairing with the 2175–2180 MHz band. We also note that AWS entrants may also benefit from the introduction of terrestrial services in the adjacent MSS band under MSS/ATC authority. Pairing 2020–2025 MHz with 2175–2180 MHz could benefit from the design of equipment in the adjacent MSS spectrum—in particular, equipment deployed to provide MSS/ATC service—which in turn could allow for potential economies of scale and generally promote the more rapid deployment of new service offerings.

C. Relocation and Reimbursement

Relocation and Reimbursement in the 1915–1920 MHz Band

8. In conjunction with our redesignation of the 1915–1920 MHz band for AWS, the Commission finds that UTAM must be fully and fairly reimbursed for relocating incumbent microwave users in this band. We agree with commenters that UTAM should be made whole for the investments it has made in clearing the UPCS bands. Accordingly, UTAM is entitled to reimbursement of twenty-five percent—on a *pro-rata* basis—of the total costs it has incurred, including its future payment obligations for links it has relocated, as of the date that a new entrant gains access to the 1915–1920 MHz spectrum band. A new AWS licensee in the 1915–1920 MHz band must pay this amount before it begins operations in the band, and under any specific terms or conditions that we adopt in the *AWS 2 GHz Service Rules NPRM.*

9. The Commission's decision to require new entrants in the 1915–1920 MHz band to reimburse UTAM a *pro rata* share of costs, in addition to being consistent with the comments supporting a reimbursement mechanism for UTAM, offers a fair and easy procedure to implement. Because UTAM has already cleared most of the incumbent microwave links deployed across the entire 1910–1930 MHz band, this reimbursement plan represents the most reasonable and easiest approach to address the relocation costs that UTAM has already incurred. We believe that such a course is superior to the difficult and complex prospect of making retroactive calculations for apportionment and represents an equitable and administratively efficient means of compensating UTAM.

Relocation and Reimbursement in the 1995–2000 MHz and 2020–2025 MHz Bands

10. We first conclude that AWS licensees that do not begin operations in the 1990–2025 MHz band until after this spectrum has been cleared will not have to participate in the relocation process of incumbent BAS licensees. These AWS licensees will receive unencumbered spectrum, the value of which will be reflected in the auction price. Further, these late-entering AWS licensees will not have any reimbursement obligation to Nextel, if Nextel has received credit for BAS relocation costs in the 800 MHz true-up. These AWS licensees may, under certain circumstances, have reimbursement obligations to MSS entrants, otherwise, these AWS licensees would not have a reimbursement obligation to MSS entrants.

11. The Commission will require an AWS licensee that enters the band prior to the milestones established for Nextel and MSS licensees to participate in the BAS relocation process. AWS licensees shall generally follow a relocation plan modeled on the policies set forth in our earlier *Emerging Technologies*

proceeding and, in particular, follow the requirement that new entrants provide comparable facilities to incumbents that are relocated. Accordingly, AWS licensees must provide comparable facilities to BAS incumbents that are relocated. Further, AWS licensees, Nextel and MSS licensees, each of which individually is authorized to operate on a fraction of the band, will mutually benefit from the clearance of all BAS licensees in the band. An AWS licensee will be responsible, similar to other new entrants, to relocate all BAS operations from 1990–2025 MHz, even if it ultimately does not build its own facilities in some geographic areas. As we determined in the *MSS Third R&O* and affirmed in the *800 MHz R&O,* a one-phase relocation plan avoids the possibility of BAS operations on three different band plans, and eliminates the potential disruption and down time to BAS associated with being relocated under two different phases in a short period of time. We also note that our decision to accommodate AWS entrants into the band does not alter our need to minimize the disruption to incumbent BAS operations during the transition. Therefore, we believe that, in the event BAS relocation has not been completed, including AWS licensees as participants in the relocation of all BAS operations from the 1990–2025 MHz band strikes an appropriate balance that is not unduly burdensome on AWS entrants, while also fair to the BAS incumbents and the other entrants in the band.

12. All entrants must clear the entire 1990–2025 MHz band (a total of thirty-five megahertz of spectrum) while only operating in 1990–1995 MHz (a total of five megahertz of spectrum for Nextel), in 2000–2020 MHz (a total of twenty megahertz of spectrum for MSS), and in 1995–2000 MHz and 2020–2025 MHz (a total of ten megahertz of spectrum for AWS). Therefore, the *pro rata* share for AWS licensees, collectively, represents the costs to relocate two-sevenths of the spectrum (one-seventh for each five megahertz block).

Relocation in the 2175–2180 MHz Band

13. Given the Commission's decision in the *AWS Second R&O* to apply the modified procedures to AWS licensee relocation of FS in the 2110–2150 MHz band, we conclude that it is appropriate to apply the same procedures to the relocation of FS by AWS licensees in the 2175–2180 MHz band. Specifically, §§ 101.69 through 101.82 of the rules set forth the provisions governing the transition from FS to ET services, including both the more generic ET relocation procedures for PCS and AWS and the MSS modifications. For example, these rules set forth, among other matters, provisions regarding voluntary and mandatory periods, sunset provisions, involuntary relocation procedures, and the allocation of reimbursement expenses by subsequently entering ET licensees. By making the modified MSS provisions applicable in the 2175–2180 MHz band, new AWS entrants will be governed by the same relocation rules that apply to AWS entrants in the other bands subject to part 101 relocation. In short, we believe that relocation procedures for AWS in the 2175–2180 MHz band that are consistent with the relocation procedures discussed in this and related proceedings will foster a more efficient roll-out of AWS, will minimize confusion among the parties, and will thereby serve the public interest.

D. Additional Flexibility in the 1920–1930 MHz Band

14. We are modifying the rules for UPCS in the 1920–1930 MHz band to provide additional flexibility for the use of other types of voice based systems. Specifically, we will remove the requirement to use specified channels, allow devices to transmit with a maximum bandwidth of 2.5 megahertz, and we will delete the packing rule. In addition, we will allow asynchronous operation in this band. We believe that these changes will promote the introduction of spectrally efficient equipment that will be widely supported by the public.

Summary of the Third Memorandum Opinion and Order

15. In the *Third Memorandum Opinion and Order* in ET Docket No. 00–258, the Commission denies a petition for reconsideration jointly filed by XM and Sirius that claims that the Commission failed to consider their comments regarding use of the 2360–2395 MHz band as replacement spectrum for users relocated from the 1710–1755 MHz and 2110–2155 MHz bands, and the effect that such use would have on adjacent satellite systems.

16. Also, the Commission denies petitions for reconsideration filed by Sprint and WCA that sought comparable replacement spectrum and full compensation for relocation costs for displaced Multipoint Distribution Service (MDS) licensees in the 2150–2162 MHz band.

17. Additionally, the Commission dismisses a petition for reconsideration filed by PCIA that sought modification of § 101.99 of the rules to establish a clearinghouse to oversee cost-sharing procedures associated with incumbent relocation in the 2110–2150 MHz band.

18. Finally, the Commission denies petitions for reconsideration filed by Celsat, CTIA, ICO, SIA, and TMI and TerreStar that oppose the decision to reallocate portions of the 2 GHz MSS spectrum.

Summary of the Fifth Memorandum Opinion and Order

19. In the *Fifth Memorandum Opinion and Order* in ET Docket No. 95–18, the Commission grants in part, by clarifying certain rules, and otherwise denies a petition for clarification and reconsideration jointly filed by the American Petroleum Institute and the United Telecom Council concerning the negotiation and relocation procedures for incumbent Fixed service licensees in the 2110–2150 MHz and 2180–2200 MHz bands.

Final Regulatory Flexibility Analysis

20. As required by the Regulatory Flexibility Act (RFA) [1] an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in the *Third Notice of Proposed Rulemaking (Third NPRM).*[2] The Commission sought written public comments on the proposals in the *Third NPRM,* including comment on the IRFA. This present Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.[3]

Need for, and Objectives of, the Sixth Report and Order

21. The *Sixth Report and Order* (*Sixth R&O*) continues our efforts to allocate spectrum that can be used for the provision of advanced wireless services (AWS) to the public, which in turn supports our obligations under section 706 of the 1996 Telecommunications Act [4] and, more generally, serves the public interest by promoting rapid and efficient radio communications facilities.

22. The *Sixth R&O* discusses the need for spectrum allocations to allow for the provision of AWS. Specifically, it:

• Refutes argument that Broadband PCS mobile and base transmit bands

[1] *See* 5 U.S.C. 603. The RFA (codified at 5 U.S.C. 601–612) has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Public Law 104–121, title II, 110 Stat. 857 (1996).

[2] 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, IB Docket No. 99–81, *Third Report and Order, Third Notice of Proposed Rulemaking and Second Memorandum Opinion and Order,* 18 FCC Rcd 2223 (2003).

[3] *See* 5 U.S.C. 604.

[4] Section 706 of the Communications Act of 1934, as amended, codified at 47 U.S.C. 157.

must have separation of fifteen megahertz, and found that a ten megahertz separation is suitable without causing interference between services in these bands.

- Redesignated the 1915–1920 MHz and 2020–2025 MHz bands for AWS use.
- Redesignated the 2020–2025 MHz and 2175–2180 MHz bands for AWS use.
- Paired the 1915–1920 and 1995–2000 MHz bands and 2020–2025 and 2175–2180 MHz bands for the provision of AWS use.
- Adopts the UTAM reimbursement plan for the 1915–1920 MH_z band, allowing relocation efforts of microwave links to continue in the 1910–1930 MH_z band without disruption, while making the band available for other spectrum efficient services.
- Denies all petitions for rulemaking and petitions for waivers filed in this proceeding regarding the 1910–1920 MH_z band.
- Provided additional flexibility for UPCS operations in the 1920–1930 MH_z band.

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

23. There were no comments filed that specifically addressed the rules and policies proposed in the IRFA.

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

24. 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 rules adopted herein.[5] The RFA generally defines the term ''small entity'' as having the same meaning as the terms ''small business,'' ''small organization,'' and ''small governmental jurisdiction.''[6] In addition, the term ''small business'' has the same meaning as the term ''small business concern'' under the Small Business Act.[7] Nationwide, there are a total of 22.4 million small businesses, according to SBA data.[8] 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 Small Business Administration (SBA).[9] A small organization is generally ''any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.''[10] Nationwide, there are approximately 1.6 million small organizations.[11] The term ''small governmental jurisdiction'' is defined as ''governments of cities, towns, townships, villages, school districts, or special districts, with a population of less than fifty thousand.''[12] As of 1997, there were approximately 87,453 governmental jurisdictions in the United States.[13] This number includes 39,044 county governments, municipalities, and townships, of which 37,546 (approximately 96.2%) have populations of fewer than 50,000, and of which 1,498 have populations of 50,000 or more. Thus, we estimate the number of small governmental jurisdictions overall to be 84,098 or fewer.

25. *Broadcast Auxiliary Service (BAS).* BAS 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 back to the stations). The Commission has not developed a definition of small entities specific to broadcast auxiliary licensees. The U.S. Small Business Administration (SBA) has developed small business size standards, as follows: (1) For TV BAS, we will use the size standard for Television Broadcasting, which consists of all such companies having annual receipts of no more than $12.0 million;[14] (2) For Aural BAS, we will use the size standard for Radio Stations, which consists of all such companies having annual receipts of no more than $6 million;[15] (3) For Remote Pickup BAS we will use the small business size standard for Television Broadcasting when used by a TV station and that for Radio Stations when used by such a station.

26. According to Commission staff review of BIA Publications, Inc. Master Access Television Analyzer Database as of May 16, 2003, about 814 of the 1,220 commercial television stations in the United States had revenues of $12 million or less. We note, however, that, in assessing whether a business concern qualifies as small under the above definition, business (control) affiliations[16] must be included.[17] Our estimate, therefore, likely overstates the number of small entities that might be affected by our action, because the revenue figure on which it is based does not include or aggregate revenues from affiliated companies. There are also 2,127 low power television stations (LPTV).[18] Given the nature of this service, we will presume that all LPTV licensees qualify as small entities under the SBA size standard. According to Commission staff review of BIA Publications, Inc., Master Access Radio Analyzer Database, as of May 16, 2003, about 10,427 of the 10,945 commercial radio stations in the United States had revenue of $6 million or less. We note, however, that many radio stations are affiliated with much larger corporations with much higher revenue, and, that in assessing whether a business concern qualifies as small under the above definition, such business (control) affiliations[19] are included.[20] Our estimate, therefore, likely overstates the number of small businesses that might be affected by our action.

27. *Cable Antenna Relay Service (CARS).* CARS includes transmitters generally used to relay cable programming within cable television system distribution systems. The SBA has developed a small business size standard for Cable and other Program Distribution, which consists of all such companies having annual receipts of no more than $12.5 million. According to Census Bureau data for 1997, there were 1,311 firms within the industry category Cable and Other Program Distribution, total, that operated for the entire year.[21] Of this total, 1,180 firms had annual receipts of under $10 million, and an

[5] 5 U.S.C. 604(a)(3).

[6] 5 U.S.C. 601(6).

[7] 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**.''

[8] *See* SBA, Programs and Services, SBA Pamphlet No. CO–0028, at page 40 (July 2002).

[9] 15 U.S.C. 632.

[10] 5 U.S.C. 601(4).

[11] Independent Sector, The New Nonprofit Almanac & Desk Reference (2002).

[12] 5 U.S.C. 601(5).

[13] U.S. Census Bureau, Statistical Abstract of the United States: 2000, Section 9, pages 299–300, Tables 490 and 492.

[14] 13 CFR 121.201, NAICS code 515120.

[15] *Id.* NAICS code 515112.

[16] ''Concerns are affiliates of each other when one concern controls or has the power to control the other or a third party or parties controls or has to power to control both.'' 13 CFR 121.103(a)(1).

[17] ''SBA counts the receipts or employees of the concern whose size is at issue and those of all its domestic concern's size.'' 13 CFR 121.103(a)(4).

[18] FCC News Release, ''Broadcast Station Totals as of September 30, 2002'' (Nov. 6, 2002).

[19] ''Concerns are affiliates of each other when one concern controls or has the power to control the other, or a third party or parties controls or has the power to control both.'' 13 CFR 121.103(a)(1).

[20] ''SBA counts the receipts or employees of the concern whose size is at issue and those of all its domestic and foreign affiliates, regardless of whether the affiliates are organized for profit, in determining the concern's size.'' 13 CFR 121.103(a)(4).

[21] 13 CFR 121.201, NAICS code 517510 (changed from 513220 in October 2002).

additional fifty-two firms had receipts of $10 million to $24,999,999.00.[22] Thus, under this standard, the majority of firms can be considered small.

28. *Fixed Microwave Services.* Microwave services include common carrier,[23] private-operational fixed,[24] and broadcast auxiliary radio services.[25] At present, there are approximately 36,708 common carrier fixed licensees and 59,291 private operational-fixed licensees and broadcast auxiliary radio licensees in the microwave services. The Commission has not yet defined a small business with respect to microwave services. For purposes of the FRFA, we will use the SBA's definition applicable to wireless and other telecommunications companies—*i.e.*, an entity with no more than 1,500 persons.[26] According to Census Bureau data for 1997, there were 977 firms in this category, total, that operated for the entire year.[27] Of this total, 965 firms had employment of 999 or fewer employees, and an additional twelve firms had employment of 1,000 employees or more.[28] Thus, under this size standard, majority of firms can be considered small.

29. We note that the number of firms does not necessarily track the number of licensees. We estimate that all of the Fixed Microwave licensees (excluding broadcast auxiliary licensees) would qualify as small entities under the SBA definition. Of these licenses, approximately fourteen are issued for frequencies in the Emerging Technology bands affected by this proceeding. This, assuming that these entities also qualify as small businesses, as many as fourteen small business licensees could be affected by the rules we adopt. We note that these entities have been subject to relocation by UTAM under rules originally adopted in the Commission's *Emerging Technologies* proceeding. UTAM is the Commission's frequency coordinator for UPCS devices in the 1910–1930 MH_z band. The *Sixth R&O* anticipates that these general relocation rules will continue to apply to FS microwave licensees and does not propose to modify the class of licensees that are subject to these relocation provisions.

30. *Mobile Satellite Service.* Neither the Commission nor the U.S. Small Business Administration has developed a small business size standard specifically for mobile satellite service licensees. The appropriate size standard is therefore the SBA standard for Satellite Telecommunications, which provides that such entities are small if they have $12.5 million or less in annual revenues.[29] Currently, nearly a dozen entities are authorized to provide voice MSS in the United States. We have ascertained from published data that four of those companies are not small entities according to the SBA's definition,[30] but we do not have sufficient information to determine which, if any, of the others are small entities. We anticipate issuing several licenses for 2 GH_z mobile earth stations that would be subject to the requirements we are adopting here. We do not know how many of those licenses will be held by small entities, however, as we do not yet know exactly how many 2 GH_z mobile-earth-station licenses will be issued or who will receive them.[31] The Commission notes that small businesses are not likely to have the financial ability to become MSS system operators because of high implementation costs, including construction of satellite space stations and rocket launch, associated with satellite systems and services.

31. *Unlicensed Personal Communications Services.* As its name indicates, UPCS is not a licensed service. UPCS consists of intentional radiators operating in the frequency bands 1920–1930 MH_z and 2390–2400 MH_z, that provide a wide array of mobile and ancillary fixed communication services to individuals and businesses. The *Sixth R&O* affects UPCS operations in the 1920–1930 MH_z band; operations in those frequencies are given flexibility to deploy both voice and data-based services. There is no accurate source for the number of operators in the UPCS. The Commission has not developed a definition of small entities applicable to UPCS equipment manufacturers. However, the SBA has developed a small business size standard, Cellular and Other Wireless Carriers, which consists of all such companies having 1500 or fewer employees.[32] According to the Census Bureau data for 1997, there were 977 firms in this category, total, that operated for the entire year.[33] Of this total, 965 firms had employment of 999 or fewer employees, and an additional 12 firms had employment of 1,000 employees or more.[34] Thus, under this size standard, the great majority of firms can be considered small.

Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements

32. The *Sixth R&O* addresses the possible use of the bands 1915–1920 MHz and 1995–2000 MHz to support the introduction of new AWS, but does not propose service rules. Thus, the item contains no new reporting requirements. The *Sixth R&O* modifies

[22] *Id.*

[23] 47 CFR part 101 *et seq.* (formerly, part 21 of the Commission's Rules).

[24] Persons eligible under parts 80 and 90 of the Commission's rules can use Private-Operational Fixed Microwave services. *See* 47 CFR parts 80 and 90. Stations in this service are called operational-fixed to distinguish them from common carrier and public fixed stations. Only the licensee may use the operational-fixed station, and only for communications related to the licensee's commercial, industrial, or safety operations.

[25] Auxiliary Microwave Service is governed by part 74 of title 47 of the Commission's rules. *See* 47 CFR part 74 *et seq.* Available to licensees of broadcast stations and to broadcast and cable network entities, broadcast auxiliary microwave stations are used for relaying broadcast television signals from the studio to the transmitter, or between two points such as a main studio and an auxiliary studio. The service also includes mobile TV pickups, which relay signals from a remote location back to the studio.

[26] 13 CFR 121.201, NAICS code 517212 (formerly 213322).

[27] U.S. Census Bureau, 1997 Economic Census, Subject Series: Information, ''Employment Size of Firms Subject to Federal Income Tax: 1997,'' Table 5, NAICS code 217212 (issues Oct. 2000).

[28] *Id.* The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is ''Firms with 1,000 employees or more.''

[29] 13 CFR 121.201, North American Industry Classification System (''NAICS'') code 51740, formerly NAICS code 513340.

[30] Comsat Corporation, Globalstar USA, Honeywell International, Inc., and Mobile Satellite Ventures Subsidiary LLC (''MSVS'') each holds one of the current licenses for 1.6 GH_z mobile satellite stations. Comsat Corporation reported annual revenue of $618 million in its most recent annual report to the U.S. Securities and Exchange Commission (''SEC''). Globalstar USA (formerly AirTouch Satellite Services) is a indirectly majority-owned by Thermo Satellite LP, a Colorado limited partnership. (See International Authorizations Granted, Public Notice, 19 FCC Rcd 4079 (2004)). In another annual report filed with the SEC, Honeywell International Inc. reported receiving sales revenue of $23.7 billion in 2001. MSVS is wholly owned by a limited partnership that is 48.1% owned by Motient Corporation and 39.9% owned by a limited partnership controlled by a wholly-owned subsidiary of BCE, Inc. In an annual report filed with the SEC, Motient reported revenue of $93.3 billion for calendar year 2001. BCE, Inc. reports in its corporate Web site, *http://www.bce.ca/en/investors/reports/annual/bce/2002annual/bce_ar02_04_e.html,* that it received $19.8 billion of revenue in 2002.

[31] There are currently four space-station authorizations for Mobile Satellite Service systems that would operate with 2 GH_z mobile earth stations. Although we know the number and identity of the space-station operators, neither the number nor the identity of future 2 GHz mobile-earth-station licensees can be determined from that data.

[32] 13 CFR 121.201, North American Industry Classification System (NAICS) code 517212.

[33] U.S. Census Bureau, 1997 Economic Census, Subject Series: Information, ''Employment Size of Firms Subject to Federal Income Tax: 1997,'' Table 5, NAICS code 517212 (issued Oct. 2000).

[34] *Id.* The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is ''Firms with 1,000 employees or more.''

the procedures by which incumbent licensees in the 1915–1920 MHz and 1995–2000 MHz band are to be relocated by new entrants. The relocation procedures set forth in the *Sixth R&O* are based on relocation procedures that had been previously adopted for larger blocks of spectrum that include the bands 1915–1920 MHz and 1995–2000 MHz, but that did not account for new AWS entrants in these bands. For example, the *Sixth R&O* determines that the principle that new licensees must reimburse UTAM, Inc., for a proportional share of the band-clearing costs UTAM has incurred in relocating the 1910–1930 MHz band should apply to new AWS entrants in the 1915–1920 MHz band. The *Sixth R&O* modifies previously established recordkeeping and other compliance requirements but does not substantively add to those requirements. Licensees that were previously subject to relocation requirements will still be subject to relocation requirements, but now may be involved in relocation discussions with additional entities—*i.e.* AWS licensees. Similarly, new entrants that were required to share relocation costs now may share those costs with new AWS licensees.

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

33. The RFA requires an agency to describe any significant alternatives that it has considered in developing its approach, which may include the following four alternatives (among others): ''(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 and 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 such small entities.'' [35]

34. The Commission considered and rejected proposals to not redesignate the 1915–1920 MHz band for AWS. One alternative proposed by Ascom, Siemens, Verizon and others would have had us retain this band for unlicensed PCS use and modify the pre-existing UPCS rules to allow for a greater variety of applications in the band. To the extent that small entities are UPCS users, and users of unlicensed bands are typically exempt from the reporting requirements that are necessary to secure, maintain, and renew a license that is a necessary requirement for operation under our licensed service rules, the retention of the 1915–1920 MHz band for UPCS might have minimized the economic impact on small entities. We rejected this approach because we concluded that it is feasible to introduce high powered licensed services into the band, there is a need for additional spectrum for AWS applications, and there are no current users of the 1915–1920 MHz band. Even if we were to modify the rules to allow greater UPCS use of the band, the types of applications that could be deployed under the UPCS rules would not provide the public benefits associated with AWS applications.

[35] U.S.C. 603(c)(1)–(c)(4).

Ordering Clauses

35. Pursuant to Sections 1, 4(i), 303(f) and (r), 309, 316, 332 of the Communications Act of 1934, as amended, 47 U.S.C. 151, 154(i), 303(f) and (r), 309, 316, and 332, the Report and Order and the rules specified in Appendix A will become effective November 26, 2004.

36. The Petitions for Rulemaking filed by the Wireless Information Networks Forum and UTStarcom Inc., and the Petitions for Waiver filed by Lucent Technologies Inc., UTStarcom Inc. and Drew University, Ascom Wireless Solutions Inc., Alaska Power & Telephone Company Inc., and RBM Communications *Are denied.*

37. Pursuant to sections 4(i), 302, 303(e) 303(f), 303(g), 303(r) and 405 of the Communications Act of 1934, as amended, 47 U.S.C. 154(i), 302, 303(e), 303(f), 303(g) and 405, the joint petition for clarification and reconsideration filed by the American Petroleum Institute and the United Telecom Council (API/UTC), in ET Docket No. 95–18, *Is granted* IN PART to the extent discussed in the NPRM, and otherwise *Is denied.*

38. The Petitions for Reconsideration filed by Sirius and XM, Sprint, and WCA *Are denied.*

39. The Petition for Partial Reconsideration filed by PCIA—The Wireless Infrastructure Association *Is dismissed.*

40. The Petitions for Reconsideration filed by Celsat, CTIA, ICO, SIA, and TMI and TerreStar *Are denied.*

41. The Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, *Shall send* a copy of this Report and Order, including the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

Congressional Review Act

42. The Commission will send a copy of the Sixth Report and Order including FRFA, in a report to be sent to Congress and the Government Accountability Office (GAO) pursuant to the Congressional Review Act, *see* 5 U.S.C. 801(a)(1)(A).

List of Subjects in 47 CFR Parts 15, 74, 78, and 101

Radio.

Federal Communications Commission.

Marlene H. Dortch,

Secretary.

Final Rules

■ For the reasons discussed in the preamble, the Federal Communications Commission amends 47 CFR parts 15, 74, 78, and 101 as follows:

PART 15—RADIO FREQUENCY DEVICES

■ 1. The authority citation for part 15 continues to read as follows:

Authority: 47 U.S.C. 154, 302a, 303, 304, 307, 336, and 544A.

■ 2. Section 15.301 is revised to read as follows:

§ 15.301 Scope.

This subpart sets out the regulations for unlicensed personal communications services (PCS) devices operating in the 1920–1930 MHz and 2390–2400 MHz frequency bands.

■ 3. Section 15.303 is amended by revising paragraph (g) to read as follows:

§ 15.303 Definitions.

* * * * *

(g) *Personal Communications Services (PCS) Devices [Unlicensed].* International radiators operating in the frequency bands 1920–1930 MHz and 2390–2400 MHz that provide a wide array of mobile and ancillary fixed communication services to individuals and businesses.

* * * * *

■ 4. Section 15.311 is revised to read as follows:

§ 15.311 Labeling requirements.

In addition to the labeling requirements of § 15.19(a)(3), all devices operating in the frequency band 1920–1930 MHz authorized under this subpart must bear a prominently located label with the following statement:

Installation of this equipment is subject to notification and coordination with UTAM, Inc. Any relocation of this equipment must be coordinated through, and approved by UTAM.

UTAM may be contacted at 1–800–429–8826.

■ 5. Section 15.319 is amended by revising paragraph (a) to read as follows:

§ 15.319 General technical requirements.

(a) The 2390–2400 MHz band is limited to use by asynchronous devices under the requirements of § 15.321. The 1920–1930 MHz sub-band is limited to use by devices under the requirements of § 15.323.

* * * * *

■ 6. Section 15.321 is amended by revising the section heading and paragraphs (a) and (b) to read as follows:

§ 15.321 Specific requirements for asynchronous devices operating in the 2390–2400 MHz band.

(a) Operation shall be contained within the 2390–2400 MHz band. The emission bandwidth of any intentional radiator operating in these bands shall be no less than 500 kHz.

(b) All systems of less than 2.5 MHz emission bandwidth shall start searching for an available spectrum window within 3 MHz of the band edge at 2390 or 2400 MHz while systems of more than 2.5 MHz emission bandwidth will first occupy the center half of the band. Devices with an emission bandwidth of less than 1.0 MHz may not occupy the center half of the band if other spectrum is available.

* * * * *

■ 7. Section 15.323 is amended by revising the heading, removing and reserving paragraph (b), and revising paragraphs (a), (c) introductory text, (c)(5), (c)(11), and (d) to read as follows:

§ 15.323 Specific requirements for devices operating in the 1920–1930 MHz sub-band.

(a) Operation shall be contained within the 1920–1930 MHz band. The emission bandwidth shall be less then 2.5 MHz. The power level shall be as specified in § 15.319(c), but in no event shall the emission bandwidth be less than 50 kHz.

* * * * *

(c) Devices must incorporate a mechanism for monitoring the time and spectrum windows that its transmission is intended to occupy. The following criteria must be met:

* * * * *

(5) If access to spectrum is not available as determined by the above, and a minimum of 40 duplex system access channels are defined for the system, the time and spectrum windows with the lowest power level below a monitoring threshold of 50 dB above the thermal noise power determined for the emission bandwidth may be accessed. A device utilizing the provisions of this paragraph must have monitored all access channels defined for its system within the last 10 seconds and must verify, within the 20 milliseconds (40 milliseconds for devices designed to use a 20 milliseconds frame period) immediately preceding actual channel access that the detected power of the selected time and spectrum windows is no higher than the previously detected value. The power measurement resolution for this comparison must be accurate to within 6 dB. No device or group of co-operating devices located within 1 meter of each other shall during any frame period occupy more than 6 MHz of aggregate bandwidth, or alternatively, more than one third of the time and spectrum windows defined by the system.

* * * * *

(11) An initiating device that is prevented from monitoring during its intended transmit window due to monitoring system blocking from the transmissions of a co-located (within one meter) transmitter of the same system, may monitor the portions of the time and spectrum windows in which they intend to receive over a period of at least 10 milliseconds. The monitored time and spectrum window must total at least 50 percent of the 10 millisecond frame interval and the monitored spectrum must be within 1.25 MHz of the center frequency of channel(s) already occupied by that device or co-located co-operating devices. If the access criteria is met for the intended receive time and spectrum window under the above conditions, then transmission in the intended transmit window by the initiating device may commence.

* * * * *

(d) Emissions outside the sub-band shall be attenuated below a reference power of 112 milliwatts as follows: 30 dB between the sub-band and 1.25 MHz above or below the sub-band; 50 dB between 1.25 and 2.5 MHz above or below the sub-band; and 60 dB at 2.5 MHz or greater above or below the sub-band. Emissions inside the sub-band must comply with the following emission mask: In the bands between 1B and 2B measured from the center of the emission bandwidth the total power emitted by the device shall be at least 30 dB below the transmit power permitted for that device; in the bands between 2B and 3B measured from the center of the emission bandwidth the total power emitted by an intentional radiator shall be at least 50 dB below the transmit power permitted for that radiator; in the bands between 3B and the sub-band edge the total power emitted by an intentional radiator in the measurement bandwidth shall be at least 60 dB below the transmit power permitted for that radiator. ''B'' is defined as the emission bandwidth of the device in hertz. Compliance with the emission limits is based on the use of measurement instrumentation employing peak detector function with an instrument resolution bandwidth approximately equal to 1.0 percent of the emission bandwidth of the device under measurement.

* * * * *

PART 74—EXPERIMENTAL RADIO, AUXILIARY, SPECIAL BROADCASTING AND OTHER PROGRAM DISTRIBUTIONAL SERVICES

■ The authority citation for part 74 continues to read as follows:

Authority: 47 U.S.C. 154, 303, 307, 336(f), 336(h) and 554.

■ 8. Section 74.690 is amended by revising paragraph (a) to read as follows:

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

(a) New Entrants are collectively defined as those licensees proposing to use emerging technologies to implement Mobile Satellite Services in the 2000–2020 MHz band (MSS licensees), those licensees authorized after July 1, 2004 to implement new Fixed and Mobile services in the 1990–1995 MHz band, and those licensees authorized after September 9, 2004 in the 1995–2000 MHz and 2020–2025 MHz bands. New entrants may negotiate with Broadcast Auxiliary Service licensees operating on a primary basis and fixed service licensees operating on a primary basis in the 1990–2025 MHz band (Existing Licensees) 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 1990–2025 MHz band. New licensees in the 1995–2000 MHz and 2020–2025 MHz bands are subject to the specific relocation procedures adopted in WT Docket 04–356.

* * * * *

PART 78—CABLE TELEVISION RELAY SERVICE

■ 9. 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, 1065, 1066,

1081, 1082, 1083, 1084, 1085; 47 U.S.C. 152, 153, 154, 301, 303, 307, 308, 309.

■ 10. Section 78.40 is amended by revising paragraph (a) to read as follows:

§ 78.40 Transition of the 1990–2025 MHz band from the Cable Television Relay Service to emerging technologies.

(a) New Entrants are collectively defined as those licensees proposing to use emerging technologies to implement Mobile Satellite Services in the 2000–2020 MHz band (MSS licensees), those licensees authorized after July 1, 2004 to implement new Fixed and Mobile services in the 1990–1995 MHz band, and those licensees authorized after September 9, 2004 in the 1995–2000 MHz and 2020–2025 MHz bands. New entrants may negotiate with Cable Television Relay Service licensees operating on a primary basis and fixed service licensees operating on a primary basis in the 1990–2025 MHz band (Existing Licensees) 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 New Entrants that may result in an otherwise impermissible level of interference to the Existing Licensee's operations. New licensees in the 1995–2000 MHz and 2020–2025 MHz bands are subject to the specific relocation procedures adopted in WT Docket 04–356.

* * * * *

PART 101—FIXED MICROWAVE SERVICES

■ 11. The authority citation for part 101 continues to read as follows:

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

■ 12. Section 101.69 is amended by revising the introductory text, paragraphs (b) and (d) and by adding new paragraphs (e) and (f) to read as follows:

§ 101.69 Transition of the 1850–1990 MHz, 2110–2150 MHz, and 2160–2200 MHz bands from the fixed microwave services to personal communications services, emerging technologies, and other related services.

Fixed Microwave Services (FMS) in the 1850–1990 MHz, 2110–2150 MHz, and 2160–2200 MHz bands have been allocated for use by emerging technology (ET) services, including Personal Communications Services (PCS), Advanced Wireless Services (AWS), and Mobile Satellite Services (MSS). The rules in this section provide for a transition period during which ET licensees may relocate existing FMS licensees using these frequencies to other media or other fixed channels, including those in other microwave bands.

* * * * *

(b) Except as provided in paragraph (c) and (f) of this section, FMS operations in the 1850–1990 MHz, 2110–2150 MHz, and 2160–2200 MHz bands, with the exception of public safety facilities defined in § 101.77, will continue to be co-primary with other users of this spectrum until two years after the FCC commences acceptance of applications for ET service (voluntary negotiation period), and until one year after an ET licensee initiates negotiations for relocation of the fixed microwave licensee's operations (mandatory negotiation period). In the 1920–1930 MHz band allocated for unlicensed PCS, FMS operations will continue to be co-primary until one year after UTAM, Inc. initiates negotiations for relocation of the fixed microwave licensee's operations. Except as provided in paragraph (c) of this section, public safety facilities defined in § 101.77 will continue to be co-primary in these bands until three years after the Commission commences acceptance of applications for an emerging technology service (voluntary negotiation period), and until two years 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 (mandatory negotiation period). If no agreement is reached during either the voluntary or mandatory negotiation periods, an ET licensee may initiate involuntary relocation procedures. Under involuntary relocation, the incumbent is required to relocate, provided that the ET licensee meets the conditions of § 101.75.

* * * * *

(d) Relocation of FMS licensees in the 2110–2150 and 2160–2200 MHz band will be subject to mandatory negotiations only. Except as provided in paragraph (e) of this section, 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.

(e) Relocation of FMS licensees by Mobile-Satellite Service (MSS) licensees, including MSS licensees providing Ancillary Terrestrial Component (ATC) service, will be subject to mandatory negotiations only. Mandatory negotiation periods that are triggered in the first instance by MSS/ATC licensees are defined as follows:

(1) The mandatory negotiation period for non-public safety incumbents will end December 8, 2004.

(2) The mandatory negotiation period for public safety incumbents will end December 8, 2005.

(f) AWS licensees operating in the 1910–1920 MHz and 2175–2180 MHz bands will follow the requirements and procedures set forth in ET Docket No. 00–258 and WT Docket No. 04–356.

■ 13. Section 101.73 is amended by revising paragraphs (a) and (d) introductory text to read as follows:

§ 101.73 Mandatory negotiations.

(a) If a relocation agreement is not reached during the voluntary period, the ET licensee may initiate a mandatory negotiation period. This mandatory period is triggered at the option of the ET licensee, but ET licensees may not invoke their right to mandatory negotiation until the voluntary negotiation period has expired. Relocation of FMS licensees by Mobile-Satellite Service (MSS) licensees, including MSS licensees providing Ancillary Terrestrial Component (ATC) service, will be subject to mandatory negotiations only.

* * * * *

(d) Provisions for Relocation of Fixed Microwave Licensees in the 2110–2150 and 2160–2200 MHz bands. Except as otherwise provided in § 101.69(e) pertaining to FMS relocations by MSS/ATC licensees, mandatory negotiations will commence when the ET 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:

* * * * *

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