



**Federal Communications Commission**  
Washington, D.C. 20554

August 9, 2006

**Small Entity Compliance Guide**

**Advanced Wireless Services Spectrum  
(AWS-1 Auction)**

**DA 06-1612**

**WT Docket No. 02-353, ET Docket No. 00-258**

**This Guide is prepared in accordance with the requirements of Section 212 of the Small Business Regulatory Enforcement Fairness Act of 1996. It is intended to help small entities—small businesses, small organizations (non-profits), and small governmental jurisdictions—to comply with the new rules adopted in the above-referenced FCC rulemaking docket(s). This Guide is not intended to replace the rules and, therefore, final authority rests solely with the rules. Although we have attempted to cover all parts of the rules that might be especially important to small entities, the coverage may not be exhaustive. As a result, in any civil or administrative action against a small entity for a violation of rules, the content of the Small Entity Compliance Guide may be considered only as evidence of the reasonableness or appropriateness of proposed fines, penalties or damages. This Guide may, perhaps, not apply in a particular situation based upon the circumstances, and the FCC retains the discretion to adopt approaches on a case-by-case basis that may differ from this Guide, where appropriate. Any decisions regarding a particular small entity will be based on the statute and regulations. Interested parties are free to file comments regarding this Guide and the appropriateness of its application to a particular situation; the FCC will consider whether the recommendations or interpretations in the Guide are appropriate in that situation. The FCC may decide to revise this Guide without public notice to reflect changes in the FCC's approach to implementing a rule, or to clarify or update the text of the Guide. Direct your comments and recommendations, or calls for further assistance, to the FCC's Consumer Center:**

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**I. OBJECTIVES OF THE PROCEEDINGS**

In the *AWS-1 Report and Order*, the FCC adopted service rules for Advanced Wireless Services (AWS) in the 1710-1755 and 2110-2155 MHz bands (AWS-1), including provisions for application, licensing, operating and technical rules, and for competitive bidding. In the *AWS-1 Order on Reconsideration*, the Commission modified the AWS-1 band plan and made minor revisions to the AWS-1 service rules in order to provide additional opportunities for smaller and rural wireless carriers and to enhance flexibility for potential licensees. Because Section 309(j) of the Communications Act, 47 U.S.C. § 309(j), requires that mutually exclusive applications for these licenses must be resolved by competitive bidding, the Commission brought AWS-1 under the standardized auction rules. In addition, the Commission adopted small business bidding credits for AWS-1 applicants in an effort to help small entities attract capital.

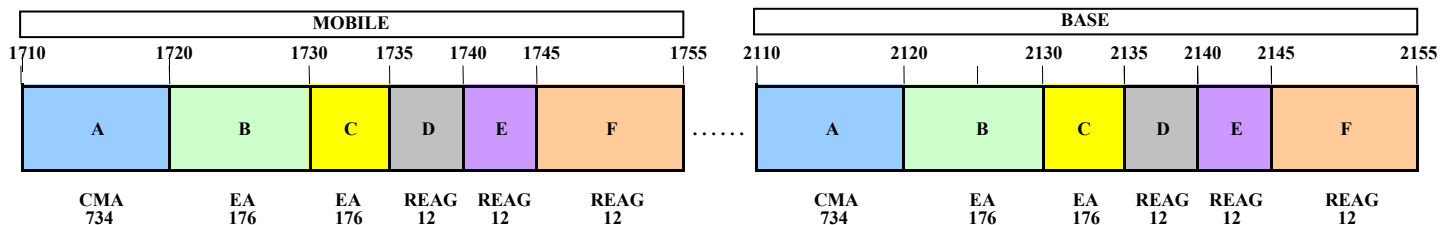
In the *AWS Relocation and Cost Sharing Report and Order*, the FCC adopted relocation procedures to govern the relocation of: (1) Broadband Radio Service (BRS) licensees in the 2150-2160/62 MHz band; and (2) Fixed Microwave Service (FS) licensees in the 2110-2150 MHz and 2160-2180 MHz bands. The FCC also adopted cost sharing rules that identify the reimbursement obligations for AWS and Mobile Satellite Service (MSS) entrants benefiting from the relocation of FS operations in the 2110-2150 MHz band and the 2160-2200 MHz band and AWS entrants benefiting from the relocation of BRS operations in the 2150-2160/62 MHz band. These relocation policies are designed to allow early entry for new technology providers by allowing providers of new services to negotiate financial arrangements for reaccommodation of incumbent licensees while ensuring an orderly and expeditious transition of, with minimal disruption to, incumbent BRS operations from the 2150-2160/62 MHz band and FS operations from the 2110-2150 MHz and 2160-2180 MHz bands.

## II. REGULATIONS AND POLICIES THAT THE COMMISSION ADOPTED OR MODIFIED, INCLUDING COMPLIANCE REQUIREMENTS

### A. AWS-1 Band Plan

In the *AWS-1 Order on Reconsideration*, the Commission adopted a final band plan for AWS-1 as follows:

<u>Blocks</u>	<u>Pairings</u>	<u>Amount</u>	<u>Geographic Area</u>	<u>Number of Licenses</u>
A	1710-1720 and 2110-2120 MHz	2x10	RSA/MSA	734
B	1720-1730 and 2120-2130 MHz	2x10	EA	176
C	1730-1735 and 2130-2135 MHz	2x5	EA	176
D	1735-1740 and 2135-2140 MHz	2x5	REAG	12
E	1740-1745 and 2140-2145 MHz	2x5	REAG	12
F	1745-1755 and 2145-2155 MHz	2x10	REAG	12



The different geographic license areas, and the number of each type covering the 50 states, Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, the Northern Mariana Islands and the Gulf of Mexico, are:

- RSA/MSA — Rural Service Areas and Metropolitan Service Areas are relatively small geographic areas defined by section 27.6(h)(1) of the Commission’s Rules, 47 C.F.R. § 27.6(h)(1). There are a total of 734 RSAs and MSAs.
- EA — Economic Areas are 176 somewhat larger geographic areas defined by section 27.6(a) and (h)(2) of the Commission’s Rules, 47 C.F.R. § 27.6(a) and (h)(2).
- REAG — Regional Economic Areas are 12 relatively large geographic areas defined by section 27.6(a) and (h)(3) of the Commission’s Rules, 47 C.F.R. § 27.6(a) and (h)(3).

At any time following grant of their licenses, AWS-1 licensees may apply to the Commission to partition their licensed geographic service area or disaggregate their licensed spectrum. Further information about the process and requirements are provided in Section 27.15 of the Commission’s Rules, 47 C.F.R. § 27.15.

### B. Application and Auction Regulations

The *AWS-1 Report and Order* and *AWS-1 Order on Reconsideration* do not establish new reporting, recordkeeping, or other compliance requirements, but extend the Commission’s existing Part 1 application and competitive bidding rules to Advanced Wireless Services. See 47 C.F.R. §§ 1.2105 (short-form applications), 1.2107 (long-form applications); see also 47 C.F.R. §§ 1.901-1.981 (application requirements and procedures). While these application requirements are new with respect to

applicants in Advanced Wireless Services, they are substantially consistent with the application requirements the Commission has applied to other auctionable services for several years.

The requirement of filing applications on appropriate forms is necessary in order to ensure that applicants are qualified to participate in auctions and hold licenses. Certain information required on FCC Form 175 is also necessary to ensure that only applicants that qualify as small businesses or very small businesses receive the bidding credits offered to such entities.

### **1. Incorporation by Reference of the Part 1 Standardized Auction Rules**

As noted above, the Commission decided in the *AWS-1 Report and Order* to conduct an auction of the AWS-1 licenses in conformity with the general competitive bidding rules in Part 1, Subpart Q, of the Commission's Rules, 47 C.F.R. §§ 1.2101-1.2114. Procedures and requirements regarding electronic filing in the FCC Auction System, including application deadlines, are presented in public notices issued by the Commission or the Wireless Telecommunications Bureau. These public notices are set forth on the Bureau's Auctions website, at <http://wireless.fcc.gov/auctions>.

### **2. Provisions for Designated Entities**

Also, as noted above, the Commission determined that bidding credits should be made available to small business AWS-1 applicants to assist them with attracting capital. For AWS-1, a **small business** is defined as an entity with average annual gross revenues for the three preceding years not exceeding \$40 million, and a **very small business** is defined as an entity with average annual gross revenues for the three preceding years not exceeding \$15 million. The Commission will make available bidding credits of 15 percent for small businesses and 25 percent for very small businesses. These bidding credits are consistent with the Commission's standardized schedule of bidding credits at 47 C.F.R. § 1.2110(f)(2).

The Commission recently revised its designated entity rules to ensure that the recipients of small business bidding credits are bona fide small businesses that use their licenses directly to provide facilities-based telecommunications services for the benefit of the public. The new rules both limit the award of designated entity benefits if any applicant or licensee has a "material relationship" created by certain agreements with one or more entities for the lease or resale of its spectrum capacity, and set out new standards for the payment of unjust enrichment. *See* 47 C.F.R. §§ 1.2110(b)(3)(iv)(A) – (B) (designated entities) and 1.2111 (unjust enrichment).

### **3. Provisions for Tribal Lands Bidding Credits**

In addition to the small business bidding credits described above, a tribal land bidding credit is available to any winning bidder when it commits to deploying facilities and providing wireless services to qualifying tribal lands. For this purpose, qualifying tribal lands are defined as federally-recognized tribal areas that are either unserved by any telecommunications carrier or that have a telephone service penetration rate of 85% or less. The tribal lands bidding credit is in addition to any other bidding credit for which the applicant qualifies, such as the small business bidding credit. Further information on tribal lands bidding credits can be found on the Commission's website, at <http://wireless.fcc.gov/auctions/tribal>.

### **4. Wireless Telecommunications Services—Applications and Proceedings (Universal Licensing System)**

In the *AWS-1 Report and Order*, the Commission noted that AWS-1 long-form applicants and licensees will be subject to the application filing procedures for the Universal Licensing System (ULS), as set forth in Part 1, Subpart F of the Commission's Rules, 47 C.F.R. §§ 1.901-1.981. The ULS is the Commission's consolidated database, application filing system and processing system for all wireless radio services. It supports electronic filing of all applications and related documents by applicants and licensees, and

provides public access to licensing information. It is accessible through the Commission's internet website, at <http://wireless.fcc.gov/uls>.

## **C. Operating and Technical Requirements**

### **1. License Period and Substantial Service Requirement**

AWS-1 licenses issued on or before December 31, 2009, will have a term of fifteen years. For AWS-1 licenses issued after that date, the license term will not exceed ten years from the date of initial issuance or renewal.

AWS-1 licensees must make a showing of "substantial service" in their license area within the license term. "Substantial service" is defined as "service which is sound, favorable, and substantially above a level of mediocre service which just might minimally warrant [license] renewal." If a licensee fails to meet this requirement, its license will be forfeited and it will be ineligible to regain it.

### **2. Relocation of Incumbents**

Both the 1710-1755 and 2110-2155 MHz bands currently have non-AWS incumbent operations, many of which must be relocated to other spectrum or other facilities before AWS-1 operations can commence.

- Federal Government stations in the 1710-1755 MHz band will be relocated using AWS-1 auction proceeds. Until that occurs, a statute (the Commercial Spectrum Enhancement Act) requires the FCC to condition AWS-1 licenses by requiring that commercial licensees "cannot cause harmful interference to such Federal [incumbents]. . . ." Information concerning these Federal Government operations is available on the National Telecommunications and Information Administration's website at: <http://www.ntia.doc.gov/osmhome/reports/specrelo/index.htm>. A public notice with guidance concerning coordination procedures in the 1710-1755 MHz band is accessible on the FCC's website at: [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-06-50A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-06-50A1.pdf).
- Non-Federal Government operations will be relocated using the procedures adopted in the *AWS Relocation and Cost Sharing Report and Order*, which generally follows the Commission's longstanding relocation (and cost sharing) policies delineated in the Emerging Technologies proceeding, and as modified by subsequent decisions.
  - Fixed point-to-point microwave systems, authorized under Parts 22 or 101 of the Commission's rules, will maintain primary status in the 2110-2150 MHz band unless and until an AWS or other emerging technology (ET) licensee requires use of the spectrum, in which case the AWS or other ET licensee is required to relocate the existing microwave licensees in these bands if interference to the existing microwave licensee would occur.
  - Similarly, eligible BRS operations in the 2150-2160/62 MHz band will be relocated to other spectrum. Until that occurs, AWS licensees in the 2150-2160/62 MHz band, prior to initiating operations from any base or fixed station that is co-channel to the 2150-2160/62 MHz band, must relocate any incumbent BRS system that is within the line of sight of the AWS licensee's base or fixed station. See 47 C.F.R. §§ 27.1132, 27.1255(a).

### **3. Cost Sharing**

Long-standing Commission relocation policies require new licensees who benefit from the clearing of spectrum to reimburse incumbents for their reasonable band clearing costs. AWS-1 licensees will carry

out this responsibility with respect to non-Federal Government operations in the 2110-2155 MHz band using cost-sharing mechanisms adopted in the *AWS Relocation and Cost Sharing Report and Order*. Cost sharing will be administered by a clearinghouse(s) to be selected by the FCC's Wireless Telecommunications Bureau. AWS licensees will be required to file with the clearinghouse:

- claims for reimbursement under the cost sharing plan within 30 calendar days of the date a relocation agreement is signed with an incumbent, *see* 47 C.F.R. § 27.1166, and
- notices containing site-specific technical data prior to initiating operations for a newly constructed site or modified existing site, *see* 47 C.F.R. § 27.1170. The clearinghouse will use this data to determine whether any reimbursement obligations exist.

#### 4. Technical Requirements

*Power limits and possible coordination:*

- 2110-2155 MHz — For a fixed or base station transmitting in the 2110-2155 MHz band and located in a county with a population density of 100 or fewer persons per square mile (based upon the most recently available population statistics from the Bureau of the Census), power is limited to a peak transmitter output power of 200 watts and to a peak equivalent isotropically radiated power (EIRP) of 3280 watts. At any other location, power is limited to a peak transmitter output power of 100 watts and an EIRP of 1640 watts. A licensee operating a fixed or base station with a power of more than 1640 watts EIRP must coordinate its operations in advance with:
  - All Government and non-Government satellite entities in the 2025-2110 MHz band,
  - All Broadband Radio Service (BRS) (formerly Multipoint Distribution Service or MDS) licensees authorized under Part 27 (formerly Part 21) of the Commission's Rules operating in the 2155-2160 MHz band within 120 kilometers (75 miles), and
  - All AWS-1 licensees operating in the 2110-2155 MHz band within 120 kilometers (75 miles).
- 1710-1755 MHz — For a fixed, mobile or portable (handheld) station transmitting in the 1710-1755 MHz band, power is limited to a peak EIRP of one watt, and mobile and portable stations must use a means for limiting power to the minimum necessary for successful communications.

*Antenna height limits:*

- Fixed stations transmitting in the 1710-1755 MHz band are limited to a maximum antenna height of ten meters above ground.

*Signal strength limits:*

- For 2110-2155 MHz, the predicted or measured median field strength at any location on the geographical border of a licensee's service area must not exceed 47 dB $\mu$  V/m unless the affected licensee in the adjacent service area agrees to a greater field strength. This limit applies both to initial service areas and to partitioned service areas.

*Emission limits:*

- For both the 1710-1755 and 2110-2155 MHz bands, the power of any emission outside a licensee's frequency block must be reduced below the transmitter power (P) by at least 43 + 10

$\log_{10}$  (P) dB. (Section 27.53(g) of the Commission's Rules, 47 C.F.R. § 27.53(g), contains more information about this limit.)

*Other protection requirements:*

- Prior to operating a base or fixed station, AWS-1 licensees must coordinate the proposed operation with incumbent fixed point-to-point microwave stations in the 2110-2155 MHz band. (See 47 C.F.R. §§ 27.1111, 27.1131.)
- Any AWS-1 licensee in the 2110-2180 MHz band that causes actual and demonstrable interference to a BRS licensee in the 2150-2160/62 MHz band must take steps to eliminate the harmful interference, up to and including relocation of the BRS licensee. (See 47 C.F.R. §§ 27.1132, 27.1255(b).)
- AWS-1 licensees must determine all Broadcast Auxiliary Service (BAS) and Cable Television Radio Service (CARS) stations operating in the 2025-2110 MHz band in their area of operation, and coordinate proposed base and fixed stations with them before beginning operations. (See 47 C.F.R. § 27.1133.)
- AWS-1 licensees must protect Federal Government stations operating in the 1710-1755 and 1755-1761 MHz bands. They must also protect certain other Government stations operating in the 1675-1700 and 1675-1710 MHz bands if notified of interference. (See 47 C.F.R. § 27.1134.)
- AWS-1 licensees must protect non-Federal Government receivers operating in the 1675-1710 MHz Meteorological-Satellite Service if notified of interference. (See 47 C.F.R. § 27.1135.)
- AWS-1 licensees that construct or modify towers in the immediate vicinity of AM broadcast stations are responsible for correcting any disturbance in the AM station antenna pattern that causes operation outside the AM station's authorized radiation limits. (See 47 C.F.R. § 27.63.)

### III. WEBLINKS

- "47 C.F.R." refers to the U.S. Code of Federal Regulations (FCC rules).  
<http://www.access.gpo.gov/cgi-bin/cfrassemble.cgi?title=200547>
- *AWS-1 Report and Order*, FCC 03-251, released November 25, 2003.  
[http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-03-251A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-03-251A1.pdf)  
[http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-03-251A1.doc](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-03-251A1.doc)  
[http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-03-251A1.txt](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-03-251A1.txt)
- *AWS-1 Order on Reconsideration*, FCC 05-149, released August 15, 2005:  
[http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-05-149A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-05-149A1.pdf)  
[http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-05-149A1.doc](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-05-149A1.doc)  
[http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-05-149A1.txt](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-05-149A1.txt)
- *AWS Relocation and Cost Sharing Report and Order*, FCC 06-45, released April 21, 2006:  
[http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-06-45A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-06-45A1.pdf)  
[http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-06-45A1.doc](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-06-45A1.doc)

- *Designated Entity Second Report and Order and Second Further Notice of Proposed Rulemaking*, FCC 06-52, released April 25, 2006:

[http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-06-52A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-06-52A1.pdf)

[http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-06-52A1.doc](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-06-52A1.doc)

- *Designated Entity Order on Reconsideration of the Second Report and Order*, FCC 06-78, released June 2, 2006:

[http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-06-78A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-06-78A1.pdf)

[http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-06-78A1.doc](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-06-78A1.doc)

- *Public Notice*, The Federal Communications Commission and the National Telecommunications and Information Administration—Coordination Procedures in the 1710-1755 MHz Band, FCC 06-50, released April 20, 2006:

[http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-06-50A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-06-50A1.pdf)

[http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-06-50A1.doc](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-06-50A1.doc)

[http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-06-50A1.txt](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-06-50A1.txt)

- *Public Notice*, Auction of Advanced Wireless Services Licenses Scheduled for June 29, 2006; Notice and Filing Requirements, Minimum Opening Bids, Upfront Payments and Other Procedures for Auction No. 66, FCC 06-47, released April 12, 2006.

[http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DA-06-299A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-06-299A1.pdf)

[http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DA-06-299A1.doc](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-06-299A1.doc)

[http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DA-06-299A1.txt](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-06-299A1.txt)

- *Public Notice*, Auction of Advanced Wireless Services Licenses Rescheduled for August 9, 2006; Revised Schedule, Filing Requirements and Supplemental Procedures for Auction No. 66, FCC 06-71, released May 19, 2006.

[http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-06-71A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-06-71A1.pdf)

[http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-06-71A1.doc](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-06-71A1.doc)

[http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-06-71A1.txt](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-06-71A1.txt)

- FCC AWS Information website:

<http://wireless.fcc.gov/services/aws>

- FCC Auctions website:

<http://wireless.fcc.gov/auctions>

- FCC Universal Licensing System website:

<http://wireless.fcc.gov/uls>

- FCC Tribal Lands website:



<http://wireless.fcc.gov/auctions/tribal>

- FCC Tribal Lands Small Entity Compliance Guide:

[http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DA-04-3713A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-04-3713A1.pdf)

- National Telecommunications and Information Administration (NTIA) website (information concerning Federal Government operations in the 1710-1755 MHz band):

<http://www.ntia.doc.gov/osmhome/reports/specrelo/index.htm>