

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

In the Matter of)
)
Amendment of the Commission’s Rules) WT Docket No. 07-250
Governing Hearing Aid-Compatible Mobile)
Handsets)

SECOND FURTHER NOTICE OF PROPOSED RULEMAKING

Adopted: November 1, 2011

Released: November 1, 2011

Comment Date: 30 days after publication in the Federal Register
Reply Comment Date: 45 days after publication in the Federal Register

By the Chief, Wireless Telecommunications Bureau and the Chief, Office of Engineering and Technology:

I. INTRODUCTION

1. The Commission’s wireless hearing aid compatibility rules ensure that consumers with hearing loss are able to access wireless communications services through a wide selection of handsets without experiencing disabling radio frequency (RF) interference or other technical obstacles. In order to ensure that the hearing aid compatibility rules cover the greatest number of wireless handsets and reflect recent technological advances, the Wireless Telecommunications Bureau (WTB) and Office of Engineering and Technology (OET) propose in this Notice, pursuant to authority delegated by the Commission, to adopt the most current hearing aid compatibility technical standard into the Commission’s rules.

II. BACKGROUND

2. To define and measure hearing aid compatibility, the Commission’s rules reference the 2007 revision of American National Standards Institute (ANSI) technical standard C63.19 (the “2007 ANSI Standard”), formulated by the Accredited Standards Committee C63[®] – Electromagnetic Compatibility (ASC C63[®]).¹ A handset is considered hearing aid-compatible for acoustic coupling² if it meets a rating of at least M3 under the 2007 ANSI Standard.³ A handset is considered hearing aid-

¹ 47 C.F.R. § 20.19(b)(1)(ii), (b)(2)(ii). Grants of certification issued before January 1, 2010, under earlier versions of ANSI C63.19 remain valid. *Id.*

² Hearing aids operating in acoustic coupling mode receive through a microphone and then amplify all sounds surrounding the user, including both desired sounds, such as a telephone’s audio signal, and unwanted ambient noise.

³ 47 C.F.R. § 20.19(b)(1)(ii). To use a digital wireless phone with a hearing aid or cochlear implant in acoustic coupling mode, radio frequency (RF) interference and other electromagnetic interference from the wireless phone must be controlled. ANSI C63.19 specifies ratings for digital wireless phones, M1 through M4, based on their RF emission levels, with M1 being the highest emissions and M4 the lowest emissions. The standard also provides a methodology for rating hearing aids from M1 to M4 based on their immunity to interference, with M1 being the least immune and M4 the most immune. To determine whether a particular digital wireless phone is likely to interfere with a particular hearing aid, the immunity rating of the hearing aid is added to the emissions rating of the

compatible for inductive coupling⁴ if it meets a rating of at least T3.⁵ The 2007 ANSI Standard specifies testing procedures for determining the M-rating and T-rating of digital wireless handsets that operate over air interfaces⁶ that, at the time it was promulgated, were commonly used for wireless services in the 800-950 MHz and 1.6-2.5 GHz bands.

3. When service rules were established for the 700 MHz band, the Commission stated its expectation that hearing aid compatibility standards would be developed for that band.⁷ It encouraged ASC C63[®] and others to work together to develop such standards in a timely manner. ASC C63[®] recently adopted an updated version of the standard, the 2011 ANSI Standard, which includes the 700 MHz band as well as other new frequencies and technologies. The new standard was published on May 27, 2011.⁸ ASC C63[®] has requested the Commission to adopt this newer version of the standard.⁹ Some of the features of the 2011 ANSI Standard that are different from the 2007 ANSI Standard include:¹⁰

- The operating frequency range for wireless devices covered by the standard has been expanded to 698 MHz - 6 GHz.¹¹

wireless phone. A sum of 4 indicates that the wireless phone will be usable; a sum of 5 indicates that the wireless phone will provide normal use; and a sum of 6 or greater indicates that the wireless phone will provide excellent performance with that hearing aid. *See Accredited Standards Committee C63[®] – Electromagnetic Compatibility, American National Standard Methods of Measurement of Compatibility between Wireless Communications Devices and Hearing Aids*, ANSI C63.19-2007 (June 8, 2007) at 5 (“2007 ANSI Standard”).

⁴ Hearing aids operating in inductive coupling mode turn off the microphone to avoid amplifying unwanted ambient noise, instead using a telecoil to receive only audio signal-based magnetic fields generated by inductive coupling-capable telephones. The hearing aid converts these fields back to sound or a signal appropriate for cochlear implant users.

⁵ 47 C.F.R. § 20.19(b)(2)(ii). Handsets are rated from T1 to T4 for inductive coupling capability in a similar manner to the M-ratings.

⁶ The term air interface refers to the technology that ensures compatibility between mobile radio service equipment, such as handsets, and a service provider’s base stations. Currently, the leading air interfaces include Code Division Multiple Access (CDMA), Global System for Mobile Communications (GSM), Integrated Digital Enhanced Network (iDEN), and Wideband Code Division Multiple Access (W-CDMA). W-CDMA is also known as Universal Mobile Telecommunications System (UMTS).

⁷ *See Service Rules for the 698-746, 747-762 and 777-792 MHz Bands*, WT Docket No. 06-150, *Report and Order and Further Notice of Proposed Rulemaking*, 22 FCC Rcd at 8064, 8120 ¶ 148 (2007).

⁸ *See Accredited Standards Committee C63[®] – Electromagnetic Compatibility, American National Standard Methods of Measurement of Compatibility between Wireless Communications Devices and Hearing Aids*, ANSI C63.19-2011 (May 27, 2011). The standard is available for purchase from IEEE Operations Center, 445 Hoes Lane, Piscataway, NJ 08854-4141, by calling (732) 981-0060, or going to <http://www.ieee.org>. A copy of the standard is also available for inspection at the Federal Communications Commission (FCC), 445 12th St., SW., Reference Information Center, Room CY-A257, Washington, DC 20554.

⁹ *See Supplemental Report and Comments of ANSI ASC C63[®]*, WT Docket Nos. 07-250, 01-309, 06-150, at 3 (June 24, 2011) (ASC C63[®] Supplemental Report).

¹⁰ In addition, the 2011 ANSI Standard makes certain changes to the fields tested for RF interference reduction and to the test procedures for inductive coupling compatibility.

¹¹ *See* 2011 ANSI Standard at 13.

- The RF interference level of wireless devices to hearing aids is measured directly. Under the 2007 ANSI Standard, the RF field intensity of a wireless device was measured and then an adjustment was applied to estimate its potential for hearing aid interference. The new measurement method, along with the introduction of a Modulation Interference Factor (MIF), allows testing procedures to be applied to operations over any RF air interface or protocol.¹²
- Certain low power transmitters that are unlikely to cause unacceptable RF interference to hearing aids are exempted from RF emissions testing and are deemed to meet an acceptable M rating.¹³

ASC C63[®] states that the improved tests in the 2011 ANSI Standard “are more correlated to the desired result.” Thus, “[t]he new test methods are improved at measuring the potential for hearing aid interference.”¹⁴

4. The Commission has recognized that revisions to the ANSI Standard may be necessary over time to improve hearing aid compatibility technical standards and accommodate technological advances and that the Commission’s rules should evolve to reflect such revisions.¹⁵ In particular, to ensure that the hearing aid compatibility standard codified in the rules would remain current, the Commission delegated to the Chief of WTB and the Chief of OET the authority, by notice-and-comment rulemaking, to approve the use of future versions of the standard that do not raise major compliance issues.¹⁶ In addition, the Commission delegated authority to the Chief of WTB and the Chief of OET to initiate a rulemaking proceeding to adopt future versions of the ANSI Standard that add frequency bands or air interfaces not covered by previous versions, if the new version does not impose materially greater obligations than those imposed on services already subject to the hearing aid compatibility rules.¹⁷ Under Section 20.19(k)(1), new obligations imposed on manufacturers and Commercial Mobile Radio Service (CMRS) providers as a result of WTB’s and OET’s adoption of technical standards for additional frequency bands and air interfaces shall become effective no less than one year after release of the order for manufacturers and Tier I carriers¹⁸ and no less than 15 months after release for other service

¹² See ASC C63[®] Supplemental Report, Annex A at ii; 2011 ANSI Standard at 12, 14-15. As a result of the change to a direct measurement methodology, the 2011 ANSI Standard revision is also able to eliminate certain conservative assumptions that were incorporated into the 2007 standard. Thus, for example, it will be approximately 2.2 dB easier for a GSM phone to receive an M3 rating under the 2011 version. See ASC C63[®] Supplemental Report, Annex A at iv.

¹³ See 2011 ANSI Standard at 12-13; ASC C63[®] Supplemental Report, Annex A at ii. Such transmitters automatically receive an M4 rating. Specifically, the exemption applies if (1) the sum of the average antenna input power and the MIF is less than or equal to +17 dBm or (2) the peak antenna input power is less than or equal to +23 dBm.

¹⁴ ASC C63[®] Supplemental Report at 3.

¹⁵ See, e.g., Section 68.4(a) of the Commission’s Rules Governing Hearing Aid-Compatible Telephones, WT Docket No. 01-309, *Report and Order*, 18 FCC Rcd 16753, 16779 ¶¶ 62-63.

¹⁶ 47 C.F.R. § 20.19(k)(2).

¹⁷ See 47 C.F.R. § 20.19(k)(1).

¹⁸ Tier I carriers are CMRS providers with nationwide footprints. See *Revision of the Commission’s Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems; Phase II Compliance Deadlines for Non-Nationwide Carriers*, CC Docket No. 94-102, *Order to Stay*, 17 FCC Rcd 14841, 14843 ¶ 7 (2002). In contrast, Tier II carriers are non-nationwide mid-sized CMRS providers, specifically providers with more than 500,000 subscribers as of the end of 2001, while Tier III carriers are non-nationwide small CMRS providers with no more than 500,000 subscribers as of the end of 2001. See *id.* at 14846-48 ¶¶ 19-24.

providers.¹⁹

5. This Second Further Notice is limited in scope and does not address all pending issues regarding hearing aid compatibility. Specifically, on August 5, 2010, the Commission released the *2010 Further Notice*, which sought comment on extending the scope of the hearing aid compatibility rules beyond the current category of CMRS, extending the in-store testing requirement beyond retail stores owned or operated by service providers, and permitting a user-controlled reduction of power as a means to meet the hearing aid compatibility standard for all operations over the GSM air interface in the 1900 MHz band.²⁰ In addition, on December 28, 2010, WTB released a Public Notice (*2010 Review PN*) seeking comment on the operation and effectiveness of the Commission's hearing aid compatibility rules.²¹ The issues raised in these notices will be addressed separately from this Second Further Notice.²²

III. DISCUSSION

6. We propose to adopt the 2011 ANSI Standard into the Commission's rules as an applicable technical standard for evaluating the hearing aid compatibility of wireless phones. We believe doing so would serve the public interest by aligning the Commission's rules with advances in technology and by bringing additional frequency bands and air interfaces under the hearing aid compatibility regime. We further tentatively conclude that adoption of this new technical standard would not raise any major compliance issues or impose materially greater obligations with respect to newly covered frequency bands and air interfaces than those already imposed under Commission rules. We seek comment on these tentative conclusions and whether adoption of the 2011 ANSI Standard would impose new or additional costs on handset manufacturers.

7. Under the rules that we propose, a manufacturer would be permitted to submit handsets for certification using either the 2007 or 2011 version of the ANSI Standard. Consistent with the Commission's direction and the Multi-Band Principles agreed to by representatives of industry and consumer groups, a multi-band and/or multi-mode handset model would be considered hearing aid-compatible for operations covered under the 2007 ANSI Standard if it obtains certification as meeting at least an M3 or T3 rating for those operations and is launched within 12 months of *Federal Register* publication of rules adopting the 2011 ANSI Standard. This will apply even if the handset model has not

¹⁹ 47 C.F.R. § 20.19(k)(1). On October 8, 2010, President Obama signed into law the Twenty-first Century Communications and Video Accessibility Act of 2010 (CVAA) to ensure that individuals with disabilities have access to emerging Internet Protocol-based communications and video programming technologies in the 21st Century. Among other provisions, the CVAA amended Section 710(c) of the Communications Act to provide for the applicability of "relevant technical standards developed through a public participation process and in consultation with interested consumer stakeholders (designated by the Commission for the purposes of this section) . . . until such time as the Commission may determine otherwise. The Commission shall consult with the public, including people with hearing loss, in establishing or approving such technical standards." 47 U.S.C. § 610(c). The Commission has not yet issued any interpretations or new rules pursuant to the new provision. Accordingly, we consider the 2011 revision to the ANSI Standard under our existing rules.

²⁰ See Amendment of the Commission's Rules Governing Hearing Aid-Compatible Mobile Handsets, WT Docket No. 07-250, *Policy Statement and Second Report and Order and Further Notice of Proposed Rulemaking*, 25 FCC Rcd 11167, 11192 ¶ 73 (2010) (*2010 Second Report and Order* and *2010 Further Notice*).

²¹ See Comment Sought on 2010 Review of Hearing Aid Compatibility Regulations, WT Docket No. 10-254, *Public Notice*, 25 FCC Rcd 17566 (WTB 2010) (*2010 Review PN*).

²² We note that in comments on the *2010 Further Notice*, at least one commenter argued that the Commission should reconsider the power-down exception for phones operating over the GSM air interface in the 1900 MHz band after it adopts a revised version of the ANSI Standard. See Hearing Loss Association of America, *et al* Comments on *2010 Further Notice* at 7-8 (October 25, 2010). We anticipate the Commission will address this issue when it takes action on the *2010 Further Notice*.

obtained certification as hearing aid-compatible for operations not covered under the 2007 ANSI Standard.²³ As under the existing rules,²⁴ we propose to continue requiring that a handset model meet ANSI technical standards over all frequency bands and air interfaces over which it operates in order to be considered hearing aid-compatible over any air interface for (1) multi-band and/or multi-mode handset models launched later than 12 months after *Federal Register* publication of rules adopting the 2011 ANSI Standard and (2) handset models that only include operations covered under the 2007 ANSI Standard. We further note that the Commission's procedures do not permit a handset model to be tested and certified partly under one revision and partly under another.²⁵ Therefore, if the proposed rule is adopted, during the 12-month transition period, a manufacturer that chooses to test the hearing aid compatibility of those operations within a handset that are only covered by the 2011 ANSI Standard and not covered under the 2007 ANSI Standard²⁶ would have to test all of the operations in the handset using the 2011 ANSI Standard.²⁷ We seek comment on these proposals.

8. Under the existing rules, the Commission's benchmarks for manufacturers and service providers to deploy hearing aid-compatible handsets apply to operations over those frequency bands that are covered under the 2007 ANSI Standard.²⁸ Upon adoption of the proposed rules, a transition period would commence to apply these benchmarks to operations covered under the 2011 ANSI Standard. In the *2010 Further Notice*, the Commission sought comment on a two-year transition period for applying hearing aid compatibility benchmarks and other requirements to wireless handsets that fall outside the subset of CMRS that is currently covered by Section 20.19(a).²⁹ We seek comment on whether a similar transition period would appropriately balance the design, engineering, and marketing requirements of manufacturers and service providers with the needs of consumers with hearing loss in the context of this rulemaking. Would a shorter transition period, but no less than 12 months for manufacturers and Tier I carriers and 15 months for other service providers,³⁰ better serve the public interest in expediting the availability of hearing aid-compatible phones while affording manufacturers sufficient time to test, produce, and ship such handsets? Alternatively, is a period longer than two years necessary? Consistent with the Commission's current rules and the minimum periods permitted under our delegated authority, should non-Tier I service providers be given an additional three months to meet deployment benchmarks to account for the difficulties they face in timely obtaining new handset models? Or, based on experience

²³ See *2010 Second Report and Order*, 25 FCC Rcd at 11180 ¶ 33.

²⁴ See 47 C.F.R. § 20.19(b).

²⁵ Wireless Telecommunications Bureau and Office of Engineering and Technology Clarify Use of Revised Wireless Phone Hearing Aid Compatibility Standard, *Public Notice*, 21 FCC Rcd 6384, 6385 (2006) ("Applicants for certification may rely on only one version of the ANSI C63.19 standard, 2001, 2005 or 2006, and must identify which version they are using for compatibility testing and for rating wireless phones, consistent with 47 C.F.R. § 2.947(b)."); Amendment of the Commission's Rules Governing Hearing Aid-Compatible Mobile Handsets, WT Docket No. 07-250, *First Report and Order*, 23 FCC Rcd 3406, 3439 ¶ 82 (2008) ("[A] party can use either the 2006 or 2007 standard for new certifications through 2009, but must use a single version for all certification tests and criteria for both the M and T ratings with respect to a given device.").

²⁶ This would allow the manufacturer to avoid having to disclose that these operations were not tested. See para. 9, *infra*.

²⁷ Similarly, after the end of the transition period, any new handset containing operations that are not covered under the 2007 ANSI Standard would effectively have to be tested using the 2011 ANSI Standard.

²⁸ See 47 C.F.R. § 20.19(c), (d).

²⁹ See *2010 Further Notice*, 25 FCC Rcd at 11200 ¶ 93.

³⁰ 47 C.F.R. § 20.19(k)(1) (codifying minimum timeframes permitted under delegated authority).

under the existing rules, do these service providers need more than three months additional time?³¹

9. Finally, the Commission's rules provide that whenever a manufacturer or service provider discloses the hearing aid compatibility rating of a handset that has not been tested for hearing aid compatibility over a newly covered air interface, the disclosure shall include the language stated in Section 20.19(f)(2).³² Handsets that have been tested and received certification as hearing aid-compatible shall be labeled as such. Handsets launched within 12 months of *Federal Register* publication of rules adopting the 2011 ANSI Standard that meet hearing aid compatibility criteria under previously covered air interfaces, but that have been tested and found not to meet such criteria under one or more newly covered air interfaces, shall include adequate disclosure of this fact under rules to be promulgated by WTB and OET.³³ In the absence of any suggestions as to specific language to be used for handsets that have been tested under newly covered air interfaces and found not to meet hearing aid compatibility criteria, we propose not to prescribe disclosure language in this situation but to rely on a general disclosure requirement backed by case-by-case resolution in the event of disputes. We understand that most handsets are expected to have little difficulty meeting the hearing aid compatibility rating criteria over Wi-Fi and other currently existing or imminently expected air interfaces that are outside the 2007 ANSI Standard. We seek comment on this proposal and invite alternative proposals, including any proposed disclosure language.

IV. PROCEDURAL MATTERS

A. Initial Regulatory Flexibility Analysis

10. As required by the Regulatory Flexibility Act, *see* 5 U.S.C. § 603, the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on small entities of the policies and rules addressed in this Notice. The IRFA is set forth in Appendix B. Written public comments are requested on the IRFA. These comments must be filed in accordance with the same filing deadlines as comments filed in response to this Notice and must have a separate and distinct heading designating them as responses to the IRFA. The Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, will send a copy of this Notice, including the IRFA, to the Chief Counsel for Advocacy of the Small Business Administration.

B. Initial Paperwork Reduction Act Analysis

11. This document does not contain proposed information collection(s) subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104-13. In addition, therefore, it does not contain any new or modified information collection burden for small business concerns with fewer than 25 employees, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, *see* 44 U.S.C. 3506(c)(4).

³¹ *See* Rural Cellular Association Comments on *2010 Review PN* at 2-4 (February 14, 2011) (urging the Commission to provide significantly more time for non-Tier I carriers due to exclusive handset arrangements and delay in acquiring hearing aid-compatible handsets after they become commercially available to larger carriers); Pulse Mobile, LLC Comments on *2010 Review PN* at 2-3 (February 14, 2011) (recommending that small providers be given at least nine additional months to comply).

³² 47 C.F.R. § 20.19(f)(2). For purposes of this discussion, handsets "tested" include those deemed to meet an M4 rating without testing under the 2011 ANSI Standard.

³³ *See 2010 Second Report and Order*, 25 FCC Rcd at 11180 ¶ 33.

C. Other Procedural Matters

1. Ex Parte Rules – Permit-But-Disclose

12. The proceeding this Notice initiates shall be treated as a “permit-but-disclose” proceeding in accordance with the Commission’s *ex parte* rules.³⁴ Persons making *ex parte* presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the *ex parte* presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter’s written comments, memoranda or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during *ex parte* meetings are deemed to be written *ex parte* presentations and must be filed consistent with rule 1.1206(b). In proceedings governed by rule 1.49(f) or for which the Commission has made available a method of electronic filing, written *ex parte* presentations and memoranda summarizing oral *ex parte* presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (e.g., .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission’s *ex parte* rules.

2. Comment Filing Procedures

13. Pursuant to sections 1.415 and 1.419 of the Commission’s rules, 47 CFR §§ 1.415, 1.419, interested parties may file comments and reply comments on or before the dates indicated on the first page of this document. Comments may be filed using the Commission’s Electronic Comment Filing System (ECFS). *See Electronic Filing of Documents in Rulemaking Proceedings*, 63 FR 24121 (1998).

- Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: <http://fjallfoss.fcc.gov/ecfs2/>.
- Paper Filers: Parties who choose to file by paper must file an original and one copy of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number.

Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission’s Secretary, Office of the Secretary, Federal Communications Commission.

- All hand-delivered or messenger-delivered paper filings for the Commission’s Secretary must be delivered to FCC Headquarters at 445 12th St., SW, Room TW-A325, Washington, DC 20554. The filing hours are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of before entering the building.

³⁴ 47 C.F.R. §§ 1.1200 *et seq.*

- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.
- U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12th Street, SW, Washington DC 20554.

14. People with Disabilities: To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (tty).

15. For further information regarding the Notice, contact Michael Rowan, Wireless Telecommunications Bureau, (202) 418-1883, e-mail Michael.Rowan@fcc.gov, or Saurbh Chhabra, Wireless Telecommunications Bureau, (202) 418-2266, e-mail Saurbh.Chhabra@fcc.gov.

V. ORDERING CLAUSES

16. Accordingly, IT IS ORDERED, pursuant to sections 4(i), 303(r), and 710 of the Communications Act of 1934, 47 U.S.C. §§ 154(i), 303(r) and 610, that this Second Further Notice of Proposed Rulemaking IS hereby ADOPTED.

17. IT IS FURTHER ORDERED that pursuant to applicable procedures set forth in Sections 1.415 and 1.419 of the Commission's Rules, 47 C.F.R. §§ 1.415, 1.419, interested parties may file comments on this Second Further Notice of Proposed Rulemaking on or before 30 days after publication of the Second Further Notice of Proposed Rulemaking in the *Federal Register* and reply comments on or before 45 days after publication in the *Federal Register*.

18. IT IS FURTHER ORDERED that the Commission's Consumer & Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this Second Further Notice of Proposed Rulemaking, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

19. This action is taken under delegated authority pursuant to Sections 0.241(a)(1), 0.331(d), and 20.19(k) of the Commission's rules, 47 C.F.R §§ 0.241(a)(1), 0.331(d), and 20.19(k).

FEDERAL COMMUNICATIONS COMMISSION

Rick Kaplan
Chief, Wireless Telecommunications Bureau

Julius P. Knapp
Chief, Office of Engineering and Technology

APPENDIX A

Proposed Rules

Part 20 of Title 47 of the Code of Federal Regulations is amended as follows:

1. The authority citation for Part 20 reads as follows:

AUTHORITY: 47 U.S.C. 154, 160, 201, 251-254, 303, 332, and 710 unless otherwise noted.

2. Section 20.19 is amended by revising paragraph (a)(1), removing paragraph (b), revising paragraphs (b)(1) and (b)(2), adding paragraph (b)(3), and revising paragraphs (b)(5), (c), (d), (f)(2), (f)(2)(i), and (f)(2)(ii) to read as follows:

§ 20.19 Hearing aid-compatible mobile handsets.

(a) * * *

(1) The hearing aid compatibility requirements of this section apply to providers of digital CMRS in the United States to the extent that they offer real-time, two-way switched voice or data service that is interconnected with the public switched network and utilizes an in-network switching facility that enables the provider to reuse frequencies and accomplish seamless hand-offs of subscriber calls, and such service is provided over frequencies in the 698 MHz to 6 GHz bands.

* * * * *

(b) *Hearing aid compatibility; technical standards.*

(1) *For radio frequency interference.* A wireless handset submitted for equipment certification or for a permissive change relating to hearing aid compatibility must meet, at a minimum, the M3 rating associated with the technical standard set forth in either the standard document “American National Standard Methods of Measurement of Compatibility Between Wireless Communication Devices and Hearing Aids,” ANSI C63.19-2007 (June 8, 2007) or ANSI C63.19-2011 (May 27, 2011). Any grants of certification issued before January 1, 2010, under previous versions of ANSI C63.19 remain valid for hearing aid compatibility purposes.

(2) *For inductive coupling.* A wireless handset submitted for equipment certification or for a permissive change relating to hearing aid compatibility must meet, at a minimum, the T3 rating associated with the technical standard set forth in either the standard document “American National Standard Methods of Measurement of Compatibility Between Wireless Communication Devices and Hearing Aids,” ANSI C63.19-2007 (June 8, 2007) or ANSI C63.19-2011 (May 27, 2011). Any grants of certification issued before January 1, 2010, under previous versions of ANSI C63.19 remain valid for hearing aid compatibility purposes.

(3) *Handsets operating over multiple frequency bands or air interfaces.*

(i) Except as provided in paragraph (b)(3)(ii) of this section, a wireless handset used for digital CMRS only over the 698 MHz to 6 GHz frequency bands is hearing aid-compatible with regard to radio frequency interference or inductive coupling if it meets the applicable technical standard(s) set forth in paragraphs (b)(1) and (b)(2) of this section for all frequency bands and air interfaces over which it operates, and the handset has been certified as compliant with the test requirements for the applicable

standard pursuant to § 2.1033(d) of this chapter. A wireless handset that incorporates operations outside the 698 MHz to 6 GHz frequency bands is hearing aid-compatible if the handset otherwise satisfies the requirements of this paragraph.

(ii) A handset that is introduced by the manufacturer prior to [12 months after publication of the Final Rule in the *Federal Register*], and that does not meet the requirements for hearing aid compatibility under paragraph (b)(3)(i) of this section, is hearing aid-compatible for radio frequency interference or inductive coupling only with respect to those frequency bands and air interfaces for which technical standards are stated in ANSI C63.19-2007 (June 8, 2007) if it meets the applicable technical standard(s) set forth in paragraphs (b)(1) and (b)(2) of this section for all such frequency bands and air interfaces over which it operates, and the handset has been certified as compliant with the test requirements for the applicable standard pursuant to § 2.1033(d) of this chapter.

* * * * *

(5) The following standards are incorporated by reference in this section: Accredited Standards Committee C63TM – Electromagnetic Compatibility, “American National Standard Methods of Measurement of Compatibility Between Wireless Communication Devices and Hearing Aids,” ANSI C63.19-2007 (June 8, 2007), Institute of Electrical and Electronics Engineers, Inc., publisher; and Accredited Standards Committee C63TM – Electromagnetic Compatibility, “American National Standard Methods of Measurement of Compatibility Between Wireless Communication Devices and Hearing Aids,” ANSI C63.19-2011 (May 27, 2011), Institute of Electrical and Electronics Engineers, Inc., publisher. These incorporations by reference were approved by the Director of the *Federal Register* in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. These materials are incorporated as they exist on the date of the approval, and notice of any change in these materials will be published in the *Federal Register*. The materials are available for inspection at the Federal Communications Commission (FCC), 445 12th St., SW., Reference Information Center, Room CY-A257, Washington, DC 20554 and at the National Archives and Records Administration (NARA). For information on the availability of these materials at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

The materials are also available for purchase from IEEE Operations Center, 445 Hoes Lane, Piscataway, NJ 08854-4141, by calling (732) 981-0060, or going to <http://www.ieee.org/portal/site>.

(c) Phase-in of requirements relating to radio frequency interference. The following applies to each manufacturer and service provider that offers wireless handsets used in the delivery of the services specified in paragraph (a) of this section and that does not fall within the *de minimis* exception set forth in paragraph (e) of this section. However, prior to [24 months after publication of the Final Rule in the *Federal Register*] for manufacturers and Tier I carriers and [27 months after publication of the Final Rule in the *Federal Register*] for service providers other than Tier I carriers, the requirements of this section do not apply to handset operations over frequency bands and air interfaces for which technical standards are not stated in ANSI C63.19-2007 (June 8, 2007).

* * * * *

(d) Phase-in of requirements relating to inductive coupling capability. The following applies to each manufacturer and service provider that offers wireless handsets used in the delivery of the services specified in paragraph (a) of this section and that does not fall within the *de minimis* exception set forth in paragraph (e) of this section. However, prior to [24 months after publication of the Final Rule in the *Federal Register*] for manufacturers and Tier I carriers and [27 months after publication of the Final Rule in the *Federal Register*] for service providers other than Tier I carriers, the requirements of this section do

not apply to handset operations over frequency bands and air interfaces for which technical standards are not stated in ANSI C63.19-2007 (June 8, 2007).

* * * * *

(f) * * *

(2) Disclosure requirements relating to handsets treated as hearing aid-compatible over fewer than all their operations.

(i) Each manufacturer and service provider shall ensure that, wherever it provides hearing aid compatibility ratings for a handset that is considered hearing aid-compatible for some of its operations under paragraph (b)(3)(ii) of this section and that has not been tested for hearing aid compatibility under ANSI C63.19-2011 (May 27, 2011), or any handset that operates over frequencies outside of the 698 MHz to 6 GHz bands, it discloses to consumers, by clear and effective means (e.g., inclusion of call-out cards or other media, revisions to packaging materials, supplying of information on Web sites), that the handset has not been rated for hearing aid compatibility with respect to some of its operation(s). This disclosure shall include the following language:

This phone has been tested and rated for use with hearing aids for some of the wireless technologies that it uses. However, there may be some newer wireless technologies used in this phone that have not been tested yet for use with hearing aids. It is important to try the different features of this phone thoroughly and in different locations, using your hearing aid or cochlear implant, to determine if you hear any interfering noise. Consult your service provider or the manufacturer of this phone for information on hearing aid compatibility. If you have questions about return or exchange policies, consult your service provider or phone retailer.

However, service providers are not required to include this language in the packaging material for handsets that incorporate a Wi-Fi air interface and that were obtained by the service provider before March 8, 2011, provided that the service provider otherwise discloses by clear and effective means that the handset has not been rated for hearing aid compatibility with respect to Wi-Fi operation.

(ii) Each manufacturer and service provider shall ensure that, wherever it provides hearing aid compatibility ratings for a handset that is considered hearing aid-compatible for some of its operations under paragraph (b)(3)(ii) of this section and that has been tested and found not to meet hearing aid compatibility requirements under ANSI C63.19-2011 (May 27, 2011) for operations over one or more air interfaces or frequency bands for which technical standards are not stated in ANSI C63.19-2007 (June 8, 2007), it discloses to consumers, by clear and effective means (e.g., inclusion of call-out cards or other media, revisions to packaging materials, supplying of information on Web sites), that the handset does not meet the relevant rating or ratings with respect to such operation(s).

* * * * *

APPENDIX B

Initial Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),¹ the Wireless Telecommunications Bureau (WTB) and the Office of Engineering and Technology (OET) have prepared this present Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on a substantial number of small entities of the policies and rules proposed in this Second Further Notice of Proposed Rule Making (Second Further Notice). Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments on the Second Further Notice provided in Section IV.C.2 of the item. The Commission will send a copy of the Second Further Notice, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).² In addition, the Second Further Notice and IRFA (or summaries thereof) will be published in the *Federal Register*.³

2. Although Section 213 of the Consolidated Appropriations Act of 2000 provides that the RFA shall not apply to the rules and competitive bidding procedures for frequencies in the 746-806 MHz Band,⁴ we believe that it would serve the public interest to analyze the possible significant economic impact of the proposed policy and rule changes in this band on small entities. Accordingly, this IRFA contains an analysis of this impact in connection with all spectrum that falls within the scope of this Second Further Notice, including spectrum in the 746-806 MHz Band.

A. Need for, and Objectives of, the Proposed Rules

3. The Second Further Notice proposes to amend Section 20.19 of the Commission's rules⁵ by adopting the new ANSI C63.19-2011 standard (the "2011 ANSI Standard")⁶ as an applicable hearing aid compatibility technical standard. The standard specifies testing procedures to establish the M-rating (acoustic coupling) and T-rating (inductive coupling) to gauge the hearing aid compatibility of handsets. Specifically, the Second Further Notice seeks comment on tentative conclusions that adopting the new 2011 ANSI Standard would raise no major compliance issues and would not impose materially greater obligations with respect to proposed newly covered frequency bands and air interfaces⁷ than those already imposed under the Commission's rules. By bringing additional frequency bands and air interfaces under

¹ See 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. §§ 601 – 612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

² See 5 U.S.C. § 603(a).

³ See 5 U.S.C. § 603(a).

⁴ In particular, this exemption extends to the requirements imposed by Chapter 6 of Title 5, United States Code, Section 3 of the Small Business Act (15 U.S.C. 632) and Section 3507 and 3512 of Title 44, United States Code. Consolidated Appropriations Act 2000, Pub. L. No. 106-113, 113 Stat. 2502, App. E, Sec. 213(a)(4)(A)-(B); *see* 145 Cong. Rec. H12493-94 (Nov. 17, 1999); 47 U.S.C.A. 337 note at Sec. 213(a)(4)(A)-(B).

⁵ 47 C.F.R. § 20.19.

⁶ Accredited Standards Committee C63® – Electromagnetic Compatibility, *American National Standard Methods of Measurement of Compatibility between Wireless Communications Devices and Hearing Aids*, ANSI C63.19-2011 (May 27, 2011) ("2011 ANSI Standard").

⁷ The term air interface refers to the technology system that ensures compatibility between mobile radio service equipment, such as handsets, and a service provider's base stations. Currently, the leading air interfaces include Code Division Multiple Access (CDMA), Global System for Mobile Communications (GSM), Integrated Digital Enhanced Network (iDEN), and Wideband Code Division Multiple Access (W-CDMA). W-CDMA is also known as Universal Mobile Telecommunications System (UMTS).

the hearing aid compatibility regime, and by aligning the Commission's rules with the most current measurement practices, this proposed rule change would help ensure that consumers with hearing loss are able to access wireless communications services through a wide selection of handsets without experiencing disabling interference or other technical obstacles.

4. Under the rules that we propose, beginning on the date that final rules become effective, a manufacturer would be permitted to submit handsets for certification using either ANSI C63.19-2007 ("the 2007 ANSI Standard")⁸ or the 2011 ANSI Standard. A multi-band and/or multi-mode handset model launched earlier than 12 months after *Federal Register* publication of new rules codifying the 2011 ANSI Standard would be considered hearing aid-compatible for operations covered under the current 2007 ANSI Standard. For multi-band and/or multi-mode handset models launched after this period, as well as for handset models that only include operations covered under the 2007 ANSI Standard, we propose to continue applying the current principle that a handset model must meet ANSI C63.19 technical standards over all frequency bands and air interfaces over which it operates in order to be considered hearing aid-compatible over any air interface.⁹ The Second Further Notice seeks comment on this proposal. The purpose of this proposed rule change is to limit the compliance burdens on businesses, both large and small, with respect to handset models that are already deployed or in development at the time new rules are adopted.

5. The Second Further Notice also seeks comment on how to phase in the 2011 ANSI Standard over a defined period of time. We seek comment on whether a two-year period for applying the hearing aid-compatible handset deployment benchmarks¹⁰ to newly covered air interfaces would appropriately balance the design, engineering, and marketing requirements of manufacturers and service providers with the needs of consumers with hearing loss for compatible handsets over the newest network technologies. We also seek comment on whether non-Tier I¹¹ service providers should be given additional time to meet deployment benchmarks in order to account for the difficulties they face in timely obtaining new handset models. The purpose of this proposed rule change is to create a time frame for implementation that would be the most efficient and least burdensome for businesses, both large and small, while ensuring that consumers with hearing loss have timely access to wireless communications.

6. Finally, the Second Further Notice seeks comment on a proposal not to prescribe specific disclosure language to be used for handsets that meet hearing aid compatibility criteria over previously covered air interfaces but have been tested and found not to meet such criteria over Wi-Fi (Wireless Fidelity) or other air interfaces that are outside the 2007 ANSI Standard. Rather, we would rely on a general requirement to disclose the hearing aid compatibility status of such handsets. We seek comment on this tentative conclusion and invite alternative proposals. This proposed rule change would be a minimally intrusive means of ensuring that consumers with hearing loss have the information they need to choose a handset that will operate compatibly with their hearing aid or cochlear implant.

⁸ Accredited Standards Committee C63[®] – Electromagnetic Compatibility, *American National Standard Methods of Measurement of Compatibility between Wireless Communications Devices and Hearing Aids*, ANSI C63.19-2007 (June 8, 2007) ("2007 ANSI Standard").

⁹ See 47 C.F.R. § 20.19(b).

¹⁰ See 47 C.F.R. § 20.19(c), (d).

¹¹ Tier I carriers are Commercial Mobile Radio Service (CMRS) providers with nationwide footprints. See Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems; Phase II Compliance Deadlines for Non-Nationwide Carriers, CC Docket No. 94-102, *Order to Stay*, 17 FCC Rcd 14841, 14843 ¶ 7 (2002). In contrast, Tier II carriers are non-nationwide mid-sized CMRS providers, specifically providers with greater than 500,000 subscribers as of the end of 2001, while Tier III carriers are non-nationwide small CMRS providers with no more than 500,000 subscribers as of the end of 2001. See *id.* at 14846-48 ¶¶ 19-24.

B. Legal Basis

7. The potential actions about which comment is sought in this Second Further Notice would be authorized pursuant to the authority contained in Sections 4(i), 303(r), and 710 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 303(r), and 610.

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

8. The RFA directs agencies to provide a description of and, where feasible, an estimate of the number of small entities that may be affected by the proposed rules, if adopted.¹² The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."¹³ In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.¹⁴ A small business concern is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.¹⁵ To assist the Commission in analyzing the total number of potentially affected small entities, the Commission requests commenters to estimate the number of small entities that may be affected by any rule changes that might result from this Second Further Notice.

9. *Small Businesses, Small Organizations, and Small Governmental Jurisdictions.* Our action may, over time, affect small entities that are not easily categorized at present. We therefore describe here, at the outset, three comprehensive, statutory small entity size standards.¹⁶ First, nationwide, there are a total of approximately 27.5 million small businesses, according to the SBA.¹⁷ In addition, a "small organization" is generally "any not-for-profit enterprise which is independently owned and operated and is not dominant in its field."¹⁸ Nationwide, as of 2007, there were approximately 1,621,315 small organizations.¹⁹ Finally, the term "small governmental jurisdiction" is defined generally as "governments of cities, towns, townships, villages, school districts, or special districts, with a population of less than fifty thousand."²⁰ Census Bureau data for 2011 indicate that there were 89,476 local governmental jurisdictions in the United States.²¹ We estimate that, of this total, as many as 88,506 entities may qualify as "small governmental jurisdictions."²² Thus, we estimate that most governmental

¹² 5 U.S.C. § 603(b)(3).

¹³ 5 U.S.C. § 601(6).

¹⁴ 5 U.S.C. § 601(3) (incorporating by reference the definition of "small business concern" in 15 U.S.C. § 632). Pursuant to the RFA, the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register." 5 U.S.C. § 601(3).

¹⁵ Small Business Act, 15 U.S.C. § 632 (1996).

¹⁶ See 5 U.S.C. §§ 601(3)–(6).

¹⁷ See SBA, Office of Advocacy, "Frequently Asked Questions," web.sba.gov/faqs (last visited May 6, 2011; figures are from 2009).

¹⁸ 5 U.S.C. § 601(4).

¹⁹ INDEPENDENT SECTOR, THE NEW NONPROFIT ALMANAC & DESK REFERENCE (2010).

²⁰ 5 U.S.C. § 601(5).

²¹ U.S. CENSUS BUREAU, STATISTICAL ABSTRACT OF THE UNITED STATES: 2011, Table 427 (2007)

²² The 2007 U.S. Census data for small governmental organizations are not presented based on the size of the population in each such organization. There were 89,476 small governmental organizations in 2007. If we assume

jurisdictions are small.

10. *Cellular Licensees.* The SBA has developed a small business size standard for small businesses in the category “Wireless Telecommunications Carriers (except satellite).”²³ Under that SBA category, a business is small if it has 1,500 or fewer employees.²⁴ The census category of “Cellular and Other Wireless Telecommunications” is no longer used and has been superseded by the larger category “Wireless Telecommunications Carriers (except satellite)”. The Census Bureau defines this larger category to include “. . . establishments engaged in operating and maintaining switching and transmission facilities to provide communications via the airwaves. Establishments in this industry have spectrum licenses and provide services using that spectrum, such as cellular phone services, paging services, wireless Internet access, and wireless video services.”²⁵

11. In this category, the SBA has deemed a wireless telecommunications carrier to be small if it has fewer than 1,500 employees.²⁶ For this category of carriers, Census data for 2007, which supersede similar data from the 2002 Census, shows 1,383 firms in this category.²⁷ Of these 1,383 firms, only 15 (approximately 1%) had 1,000 or more employees.²⁸ While there is no precise Census data on the number of firms in the group with fewer than 1,500 employees, it is clear that at least the 1,368 firms with fewer than 1,000 employees would be found in that group. Thus, at least 1,368 of these 1,383 firms (approximately 99%) had fewer than 1,500 employees. Accordingly, the Commission estimates that at least 1,368 (approximately 99%) had fewer than 1,500 employees and, thus, would be considered small under the applicable SBA size standard.

12. *Broadband Personal Communications Service.* The broadband personal communications services (PCS) spectrum is divided into six frequency blocks designated A through F, and the Commission has held auctions for each block. The Commission initially defined a “small business” for C- and F-Block licenses as an entity that has average gross revenues of \$40 million or less in the three previous calendar years.²⁹ For F-Block licenses, an additional small business size standard for “very small business” was added and is defined as an entity that, together with its affiliates, has average gross

that county, municipal, township and school district organizations are more likely than larger governmental organizations to have populations of 50,000 or less, the total of these organizations is 52,125. If we make the same assumption about special districts, and also assume that special districts are different from county, municipal, township, and school districts, in 2007 there were 37,381 special districts. Therefore, of the 89,476 small governmental organizations documented in 2007, as many as 89,506 may be considered small under the applicable standard. This data may overestimate the number of such organizations that has a population of 50,000 or less. U.S. CENSUS BUREAU, STATISTICAL ABSTRACT OF THE UNITED STATES 2011, Tables 427, 426 (Data cited therein are from 2007).

²³ 13 C.F.R. § 121.201, North American Industry Classification System (NAICS) code 517210.

²⁴ *Id.*

²⁵ U.S. Census Bureau, 2007 NAICS Definitions, “Wireless Telecommunications Carriers (Except Satellites)”; <http://www.census.gov/econ/industry/def/d517210.htm>

²⁶ 13 C.F.R. § 121.201, NAICS Code 517210.

²⁷ U.S. Census Bureau, American FactFinder, 2007 Economic Census, Industry Series, Industry Statistics by Employment Size, NAICS code 517210 (rel. Nov. 19, 2010); <http://factfinder.census.gov>.

²⁸ *Id.*

²⁹ *See Amendment of Parts 20 and 24 of the Commission’s Rules – Broadband PCS Competitive Bidding and the Commercial Mobile Radio Service Spectrum Cap; Amendment of the Commission’s Cellular/PCS Cross-Ownership Rule*; WT Docket No. 96-59, GN Docket No. 90-314, Report and Order, 11 FCC Rcd 7824, 7850–52, paras. 57–60 (1996) (“*PCS Report and Order*”); *see also* 47 C.F.R. § 24.720(b).

revenues of not more than \$15 million for the preceding three calendar years.³⁰ These small business size standards, in the context of broadband PCS auctions, have been approved by the SBA.³¹ No small businesses within the SBA-approved small business size standards bid successfully for licenses in Blocks A and B. There were 90 winning bidders that claimed small business status in the first two C-Block auctions. A total of 93 bidders that claimed small business status won approximately 40 percent of the 1,479 licenses in the first auction for the D, E, and F Blocks.³² On April 15, 1999, the Commission completed the re-auction of 347 C-, D-, E-, and F-Block licenses in Auction No. 22.³³ Of the 57 winning bidders in that auction, 48 claimed small business status and won 277 licenses.

13. On January 26, 2001, the Commission completed the auction of 422 C and F Block Broadband PCS licenses in Auction No. 35. Of the 35 winning bidders in that auction, 29 claimed small business status.³⁴ Subsequent events concerning Auction 35, including judicial and agency determinations, resulted in a total of 163 C and F Block licenses being available for grant. On February 15, 2005, the Commission completed an auction of 242 C-, D-, E-, and F-Block licenses in Auction No. 58. Of the 24 winning bidders in that auction, 16 claimed small business status and won 156 licenses.³⁵ On May 21, 2007, the Commission completed an auction of 33 licenses in the A, C, and F Blocks in Auction No. 71.³⁶ Of the 12 winning bidders in that auction, five claimed small business status and won 18 licenses.³⁷ On August 20, 2008, the Commission completed the auction of 20 C-, D-, E-, and F-Block Broadband PCS licenses in Auction No. 78.³⁸ Of the eight winning bidders for Broadband PCS licenses in that auction, six claimed small business status and won 14 licenses.³⁹

14. *Specialized Mobile Radio.* The Commission awards “small entity” bidding credits in auctions for Specialized Mobile Radio (SMR) geographic area licenses in the 800 MHz and 900 MHz bands to firms that had revenues of no more than \$15 million in each of the three previous calendar years.⁴⁰ The Commission awards “very small entity” bidding credits to firms that had revenues of no

³⁰ See *PCS Report and Order*, 11 FCC Rcd at 7852, para. 60.

³¹ See Letter to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, Small Business Administration, dated December 2, 1998.

³² See *Broadband PCS, D, E and F Block Auction Closes*, Public Notice, Doc. No. 89838 (rel. Jan. 14, 1997).

³³ See *C, D, E, and F Block Broadband PCS Auction Closes*, Public Notice, 14 FCC Rcd 6688 (WTB 1999). Before Auction No. 22, the Commission established a very small standard for the C Block to match the standard used for F Block. *Amendment of the Commission’s Rules Regarding Installment Payment Financing for Personal Communications Services (PCS) Licensees*, WT Docket No. 97-82, Fourth Report and Order, 13 FCC Rcd 15743, 15768, para. 46 (1998).

³⁴ See *C and F Block Broadband PCS Auction Closes; Winning Bidders Announced*, Public Notice, 16 FCC Rcd 2339 (2001).

³⁵ See *Broadband PCS Spectrum Auction Closes; Winning Bidders Announced for Auction No. 58*, Public Notice, 20 FCC Rcd 3703 (2005).

³⁶ See *Auction of Broadband PCS Spectrum Licenses Closes; Winning Bidders Announced for Auction No. 71*, Public Notice, 22 FCC Rcd 9247 (2007).

³⁷ *Id.*

³⁸ See *Auction of AWS-1 and Broadband PCS Licenses Closes; Winning Bidders Announced for Auction 78*, Public Notice, 23 FCC Rcd 12749 (WTB 2008).

³⁹ *Id.*

⁴⁰ 47 C.F.R. § 90.814(b)(1).

more than \$3 million in each of the three previous calendar years.⁴¹ The SBA has approved these small business size standards for the 900 MHz Service.⁴² The Commission has held auctions for geographic area licenses in the 800 MHz and 900 MHz bands. The 900 MHz SMR auction was completed in 1996. Sixty bidders claiming that they qualified as small businesses under the \$15 million size standard won 263 geographic area licenses in the 900 MHz SMR band. The 800 MHz SMR auction for the upper 200 channels was conducted in 1997. Ten bidders claiming that they qualified as small businesses under the \$15 million size standard won 38 geographic area licenses for the upper 200 channels in the 800 MHz SMR band.⁴³ A second auction for the 800 MHz band was conducted in 2002 and included 23 Basic Economic Area licenses. One bidder claiming small business status won five licenses.⁴⁴

15. The auction of the 1,050 800 MHz SMR geographic area licenses for the General Category channels was conducted in 2000. Eleven bidders that won 108 geographic area licenses for the General Category channels in the 800 MHz SMR band qualified as small businesses under the \$15 million size standard.⁴⁵ In an auction completed in 2000, a total of 2,800 Economic Area licenses in the lower 80 channels of the 800 MHz SMR service were awarded.⁴⁶ Of the 22 winning bidders, 19 claimed “small business” status and won 129 licenses. Thus, combining all three auctions, 40 winning bidders for geographic area licenses in the 800 MHz SMR band claimed status as small business.

16. In addition, there are numerous incumbent site-by-site SMR licensees and licensees with extended implementation authorizations in the 800 and 900 MHz bands. We do not know how many firms provide 800 MHz or 900 MHz geographic area SMR service pursuant to extended implementation authorizations, nor how many of these providers have annual revenues of no more than \$15 million. One firm has over \$15 million in revenues. In addition, we do not know how many of these firms have 1500 or fewer employees.⁴⁷ We assume, for purposes of this analysis, that all of the remaining existing extended implementation authorizations are held by small entities, as that small business size standard is approved by the SBA.

17. *Advanced Wireless Services (1710–1755 MHz and 2110–2155 MHz bands (AWS-1); 1915–1920 MHz, 1995–2000 MHz, 2020–2025 MHz and 2175–2180 MHz bands (AWS-2); 2155–2175 MHz band (AWS-3)).* For the AWS-1 bands, the Commission has defined a “small business” as an entity with average annual gross revenues for the preceding three years not exceeding \$40 million, and a “very small business” as an entity with average annual gross revenues for the preceding three years not exceeding \$15 million.⁴⁸ In 2006, the Commission conducted its first auction of AWS-1 licenses.⁴⁹ In

⁴¹ *Id.*

⁴² See Letter to Thomas Sugrue, Chief, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, Small Business Administration, dated August 10, 1999.

⁴³ See “Correction to Public Notice DA 96-586 ‘FCC Announces Winning Bidders in the Auction of 1020 Licenses to Provide 900 MHz SMR in Major Trading Areas,’” *Public Notice*, 18 FCC Rcd 18367 (WTB 1996).

⁴⁴ See “Multi-Radio Service Auction Closes,” *Public Notice*, 17 FCC Rcd 1446 (WTB 2002).

⁴⁵ See “800 MHz Specialized Mobile Radio (SMR) Service General Category (851-854 MHz) and Upper Band (861-865 MHz) Auction Closes; Winning Bidders Announced,” *Public Notice*, 15 FCC Rcd 17162 (2000).

⁴⁶ See, “800 MHz SMR Service Lower 80 Channels Auction Closes; Winning Bidders Announced,” *Public Notice*, 16 FCC Rcd 1736 (2000).

⁴⁷ See generally 13 C.F.R. § 121.201, NAICS code 517210.

⁴⁸ See Service Rules for Advanced Wireless Services in the 1.7 GHz and 2.1 GHz Bands, *Report and Order*, 18 FCC Rcd 25,162, App. B (2003), *modified by* Service Rules for Advanced Wireless Services In the 1.7 GHz and 2.1 GHz Bands, *Order on Reconsideration*, 20 FCC Rcd 14,058, App. C (2005).

that initial AWS-1 auction, 31 winning bidders identified themselves as very small businesses.⁵⁰ Twenty-six of the winning bidders identified themselves as small businesses.⁵¹ In a subsequent 2008 auction, the Commission offered 35 AWS-1 licenses.⁵² Four winning bidders identified themselves as very small businesses, and three of the winning bidders identified themselves as small businesses.⁵³ For AWS-2 and AWS-3, although we do not know for certain which entities are likely to apply for these frequencies, we note that these bands are comparable to those used for cellular service and personal communications service. The Commission has not yet adopted size standards for the AWS-2 or AWS-3 bands but has proposed to treat both AWS-2 and AWS-3 similarly to broadband PCS service and AWS-1 service due to the comparable capital requirements and other factors, such as issues involved in relocating incumbents and developing markets, technologies, and services.⁵⁴

18. *Rural Radiotelephone Service.* The Commission has not adopted a size standard for small businesses specific to the Rural Radiotelephone Service.⁵⁵ A significant subset of the Rural Radiotelephone Service is the Basic Exchange Telephone Radio System (“BETRS”).⁵⁶ In the present context, we will use the SBA’s small business size standard applicable to Wireless Telecommunications Carriers (except Satellite), *i.e.*, an entity employing no more than 1,500 persons.⁵⁷ There are approximately 1,000 licensees in the Rural Radiotelephone Service, and we estimate that there are 1,000 or fewer small entity licensees in the Rural Radiotelephone Service that may be affected by the rules and policies adopted herein.

19. *Wireless Communications Services.* This service can be used for fixed, mobile, radiolocation, and digital audio broadcasting satellite uses in the 2305-2320 MHz and 2345-2360 MHz bands. The Commission defined “small business” for the wireless communications services (WCS) auction as an entity with average gross revenues of \$40 million for each of the three preceding years, and a “very small business” as an entity with average gross revenues of \$15 million for each of the three preceding years.⁵⁸ The SBA has approved these definitions.⁵⁹ The Commission auctioned geographic

⁴⁹ See “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,” AU Docket No. 06-30, *Public Notice*, 21 FCC Rcd 4562 (2006) (“*Auction 66 Procedures Public Notice*”).

⁵⁰ See “Auction of Advanced Wireless Services Licenses Closes; Winning Bidders Announced for Auction No. 66,” *Public Notice*, 21 FCC Rcd 10,521 (2006) (“*Auction 66 Closing Public Notice*”).

⁵¹ See *id.*

⁵² See *AWS-1 and Broadband PCS Procedures Public Notice*, 23 FCC Rcd at 7499. Auction 78 also included an auction of broadband PCS licenses.

⁵³ See “Auction of AWS-1 and Broadband PCS Licenses Closes, Winning Bidders Announced for Auction 78, Down Payments Due September 9, 2008, FCC Forms 601 and 602 Due September 9, 2008, Final Payments Due September 23, 2008, Ten-Day Petition to Deny Period,” *Public Notice*, 23 FCC Rcd 12,749 (2008).

⁵⁴ Service Rules for Advanced Wireless Services in the 1915–1920 MHz, 1995–2000 MHz, 2020–2025 MHz and 2175–2180 MHz Bands et al., *Notice of Proposed Rulemaking*, 19 FCC Rcd 19,263, App. B (2005); Service Rules for Advanced Wireless Services in the 2155–2175 MHz Band, *Notice of Proposed Rulemaking*, 22 FCC Rcd 17,035, App. (2007); Service Rules for Advanced Wireless Services in the 2155-2175 MHz Band, *Further Notice of Proposed Rulemaking*, 23 FCC Rcd 9859, App. B (2008).

⁵⁵ The service is defined in § 22.99 of the Commission’s Rules, 47 C.F.R. § 22.99.

⁵⁶ BETRS is defined in §§ 22.757 and 22.759 of the Commission’s Rules, 47 C.F.R. §§ 22.757 and 22.759.

⁵⁷ 13 C.F.R. § 121.201, NAICS code 517210.

⁵⁸ Amendment of the Commission’s Rules to Establish Part 27, the Wireless Communications Service (WCS), *Report and Order*, 12 FCC Rcd 10785, 10879 ¶ 194 (1997).

area licenses in the WCS service. In the auction, which commenced on April 15, 1997 and closed on April 25, 1997, there were seven bidders that won 31 licenses that qualified as very small business entities, and one bidder that won one license that qualified as a small business entity.

20. *700 MHz Guard Band Licenses.* In the *700 MHz Guard Band Order*, the Commission adopted size standards for “small businesses” and “very small businesses” for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.⁶⁰ A small business in this service is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$40 million for the preceding three years.⁶¹ Additionally, a “very small business” is an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$15 million for the preceding three years.⁶² SBA approval of these definitions is not required.⁶³ In 2000, the Commission conducted an auction of 52 Major Economic Area (“MEA”) licenses.⁶⁴ Of the 104 licenses auctioned, 96 licenses were sold to nine bidders. Five of these bidders were small businesses that won a total of 26 licenses. A second auction of 700 MHz Guard Band licenses commenced and closed in 2001. All eight of the licenses auctioned were sold to three bidders. One of these bidders was a small business that won a total of two licenses.⁶⁵

21. *Upper 700 MHz Band Licenses.* In the *700 MHz Second Report and Order*, the Commission revised its rules regarding Upper 700 MHz licenses.⁶⁶ On January 24, 2008, the Commission commenced Auction 73 in which several licenses in the Upper 700 MHz band were available for licensing: 12 Regional Economic Area Grouping licenses in the C Block, and one nationwide license in the D Block.⁶⁷ The auction concluded on March 18, 2008, with 3 winning bidders claiming very small business status (those with attributable average annual gross revenues that do not

⁵⁹ See Letter to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, Small Business Administration, dated December 2, 1998.

⁶⁰ Service Rules for the 746-764 MHz Bands, and Revisions to Part 27 of the Commission’s Rules, *Second Report and Order*, 15 FCC Rcd 5299 (2000). Service rules were amended in 2007, but no changes were made to small business size categories. See Service Rules for the 698-746, 747-762 and 777-792 MHz Bands, WT Docket No. 06-150, Revision of the Commission’s Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, Section 68.4(a) of the Commission’s Rules Governing Hearing Aid-Compatible Telephones, WT Docket No. 01-309, Biennial Regulatory Review – Amendment of Parts 1, 22, 24, 27, and 90 to Streamline and Harmonize Various Rules Affecting Wireless Radio Services, WT Docket 03-264, Former Nextel Communications, Inc. Upper 700 MHz Guard Band Licenses and Revisions to Part 27 of the Commission’s Rules, WT Docket No. 06-169, Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band, PS Docket No. 06-229, Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Communications Requirements Through the Year 2010, WT Docket No. 96-86, *Report and Order and Further Notice of Proposed Rulemaking*, 22 FCC Rcd 8064 (2007).

⁶¹ *Id.* at 5343 ¶ 108.

⁶² *Id.*

⁶³ *Id.* at 5343 ¶ 108 n.246 (for the 746-764 MHz and 776-704 MHz bands, the Commission is exempt from 15 U.S.C. § 632, which requires Federal agencies to obtain Small Business Administration approval before adopting small business size standards).

⁶⁴ See “700 MHz Guard Bands Auction Closes: Winning Bidders Announced,” *Public Notice*, 15 FCC Rcd 18026 (2000).

⁶⁵ See “700 MHz Guard Bands Auction Closes: Winning Bidders Announced,” *Public Notice*, 16 FCC Rcd 4590 (WTB 2001).

⁶⁶ *700 MHz Second Report and Order*, 22 FCC Rcd 15289.

⁶⁷ See Auction of 700 MHz Band Licenses Closes, *Public Notice*, 23 FCC Rcd 4572 (WTB 2008).

exceed \$15 million for the preceding three years) and winning five licenses.

22. *Lower 700 MHz Band Licenses.* The Commission previously adopted criteria for defining three groups of small businesses for purposes of determining their eligibility for special provisions such as bidding credits.⁶⁸ The Commission defined a “small business” as an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$40 million for the preceding three years.⁶⁹ A “very small business” is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$15 million for the preceding three years.⁷⁰ Additionally, the lower 700 MHz Service had a third category of small business status for Metropolitan/Rural Service Area (MSA/RSA) licenses—“entrepreneur”—which is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$3 million for the preceding three years.⁷¹ The SBA approved these small size standards.⁷² An auction of 740 licenses (one license in each of the 734 MSAs/RSAs and one license in each of the six Economic Area Groupings (EAGs)) was conducted in 2002. Of the 740 licenses available for auction, 484 licenses were won by 102 winning bidders. Seventy-two of the winning bidders claimed small business, very small business or entrepreneur status and won licenses.⁷³ A second auction commenced on May 28, 2003, closed on June 13, 2003, and included 256 licenses.⁷⁴ Seventeen winning bidders claimed small or very small business status, and nine winning bidders claimed entrepreneur status.⁷⁵ In 2005, the Commission completed an auction of 5 licenses in the Lower 700 MHz band. All three winning bidders claimed small business status.

23. In 2007, the Commission reexamined its rules governing the 700 MHz band in the *700 MHz Second Report and Order*.⁷⁶ An auction of A, B and E block 700 MHz licenses was held in 2008.⁷⁷ Twenty winning bidders claimed small business status (those with attributable average annual gross revenues that exceed \$15 million and do not exceed \$40 million for the preceding three years). Thirty three winning bidders claimed very small business status (those with attributable average annual gross revenues that do not exceed \$15 million for the preceding three years).

24. *Offshore Radiotelephone Service.* This service operates on several UHF television broadcast channels that are not used for television broadcasting in the coastal areas of states bordering the Gulf of Mexico.⁷⁸ There are presently approximately 55 licensees in this service. The Commission is unable to estimate at this time the number of Offshore Radiotelephone Service licensees that would qualify as small under the SBA’s small business size standard for the category of Wireless Telecommunications Carriers (except Satellite).⁷⁹ Under that SBA small business size standard, a

⁶⁸ See Reallocation and Service Rules for the 698–746 MHz Spectrum Band (Television Channels 52–59), *Report and Order*, 17 FCC Rcd 1022 (2002) (“*Channels 52–59 Report and Order*”).

⁶⁹ See *id.*, 17 FCC Rcd at 1087–88 ¶ 172.

⁷⁰ See *id.*

⁷¹ See *id.*, 17 FCC Rcd at 1088 ¶ 173.

⁷² See *Alvarez Letter 1998*.

⁷³ See Lower 700 MHz Band Auction Closes, *Public Notice*, 17 FCC Rcd 17,272 (2002).

⁷⁴ See Lower 700 MHz Band Auction Closes, *Public Notice*, 18 FCC Rcd 11,873 (2003).

⁷⁵ See *id.*

⁷⁶ 700 MHz Second Report and Order, *Second Report and Order*, 22 FCC Rcd 15,289, 15,359 n.434 (2007).

⁷⁷ See Auction of 700 MHz Band Licenses Closes, *Public Notice*, 23 FCC Rcd 4572 (2008).

⁷⁸ This service is governed by Subpart I of Part 22 of the Commission’s Rules. See 47 C.F.R. §§ 22.1001–22.1037.

⁷⁹ 13 C.F.R. § 121.201, NAICS code 517210.

business is small if it has 1,500 or fewer employees.⁸⁰ Census data for 2007, which supersede data contained in the 2002 Census, show that there were 1,383 firms in this category that operated that year.⁸¹ Of those 1,383, 1,368 had fewer than 1000 employees, and 15 firms had more than 1000 employees. Thus under this category and the associated small business size standard, the majority of firms can be considered small.

25. *Broadband Radio Service and Educational Broadband Service.* Broadband Radio Service systems, previously referred to as Multipoint Distribution Service (“MDS”) and Multichannel Multipoint Distribution Service (“MMDS”) systems, and “wireless cable,” transmit video programming to subscribers and provide two-way high speed data operations using the microwave frequencies of the Broadband Radio Service (“BRS”) and Educational Broadband Service (“EBS”) (previously referred to as the Instructional Television Fixed Service (“ITFS”)).⁸² In connection with the 1996 BRS auction, the Commission established a small business size standard as an entity that had annual average gross revenues of no more than \$40 million in the previous three calendar years.⁸³ The BRS auctions resulted in 67 successful bidders obtaining licensing opportunities for 493 Basic Trading Areas (“BTAs”). Of the 67 auction winners, 61 met the definition of a small business. BRS also includes licensees of stations authorized prior to the auction. At this time, we estimate that of the 61 small business BRS auction winners, 48 remain small business licensees. In addition to the 48 small businesses that hold BTA authorizations, there are approximately 392 incumbent BRS licensees that are considered small entities.⁸⁴ After adding the number of small business auction licensees to the number of incumbent licensees not already counted, we find that there are currently approximately 440 BRS licensees that are defined as small businesses under either the SBA standard or the Commission’s rules. In 2009, the Commission conducted Auction 86, the sale of 78 licenses in the BRS areas.⁸⁵ The Commission offered three levels of bidding credits: (i) a bidder with attributed average annual gross revenues that exceed \$15 million and do not exceed \$40 million for the preceding three years (small business) received a 15 percent discount on its winning bid; (ii) a bidder with attributed average annual gross revenues that exceed \$3 million and do not exceed \$15 million for the preceding three years (very small business) received a 25 percent discount on its winning bid; and (iii) a bidder with attributed average annual gross revenues that do not exceed \$3 million for the preceding three years (entrepreneur) received a 35 percent discount on its winning bid.⁸⁶

⁸⁰ *Id.*

⁸¹ U.S. Census Bureau, 2007 Economic Census, Sector 51, 2007 NAICS code 517210 (rel. Oct. 20, 2009), http://factfinder.census.gov/servlet/IBQTable?_bm=y&-geo_id=&-fds_name=EC0700A1&-_skip=700&-ds_name=EC0751SSSZ5&-_lang=en.

⁸² *Amendment of Parts 21 and 74 of the Commission’s Rules with Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service and Implementation of Section 309(j) of the Communications Act – Competitive Bidding*, MM Docket No. 94-131 and PP Docket No. 93-253, Report and Order, 10 FCC Rcd 9589, 9593, para. 7 (1995) (“*MDS Auction R&O*”).

⁸³ 47 C.F.R. § 21.961(b)(1).

⁸⁴ 47 U.S.C. § 309(j). Hundreds of stations were licensed to incumbent MDS licensees prior to implementation of section 309(j) of the Communications Act of 1934, 47 U.S.C. § 309(j). For these pre-auction licenses, the applicable standard is SBA’s small business size standard.

⁸⁵ Auction of Broadband Radio Service (BRS) Licenses, Scheduled for October 27, 2009, Notice and Filing Requirements, Minimum Opening Bids, Upfront Payments, and Other Procedures for Auction 86, *Public Notice*, 24 FCC Rcd 8277 (2009).

⁸⁶ *Id.* at 8296.

Auction 86 concluded in 2009 with the sale of 61 licenses.⁸⁷ Of the ten winning bidders, two bidders that claimed small business status won four licenses; one bidder that claimed very small business status won three licenses; and two bidders that claimed entrepreneur status won six licenses.

26. In addition, the SBA's Cable Television Distribution Services small business size standard is applicable to EBS. There are presently 2,032 EBS licensees. All but 100 of these licenses are held by educational institutions. Educational institutions are included in this analysis as small entities.⁸⁸ Thus, we estimate that at least 1,932 licensees are small businesses. Since 2007, Cable Television Distribution Services have been defined within the broad economic census category of Wired Telecommunications Carriers; that category is defined as follows: "This industry comprises establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired telecommunications networks. Transmission facilities may be based on a single technology or a combination of technologies."⁸⁹ For these services, the Commission uses the SBA small business size standard for the category "Wireless Telecommunications Carriers (except satellite)," which is 1,500 or fewer employees.⁹⁰ To gauge small business prevalence for these cable services we must, however, use the most current census data. Census data for 2007, which supersede data contained in the 2002 Census, show that there were 1,383 firms that operated that year.⁹¹ Of those 1,383, 1,368 had fewer than 100 employees, and 15 firms had more than 100 employees. Thus under this category and the associated small business size standard, the majority of firms can be considered small.

27. *Government Transfer Bands.* The Commission adopted small business size standards for the unpaired 1390-1392 MHz, 1670-1675 MHz, and the paired 1392-1395 MHz and 1432-1435 MHz bands.⁹² Specifically, with respect to these bands, the Commission defined an entity with average annual gross revenues for the three preceding years not exceeding \$40 million as a "small business," and an entity with average annual gross revenues for the three preceding years not exceeding \$15 million as a "very small business."⁹³ SBA has approved these small business size standards for the aforementioned

⁸⁷ Auction of Broadband Radio Service Licenses Closes, Winning Bidders Announced for Auction 86, Down Payments Due November 23, 2009, Final Payments Due December 8, 2009, Ten-Day Petition to Deny Period, *Public Notice*, 24 FCC Rcd 13572 (2009).

⁸⁸ The term "small entity" within SBREFA applies to small organizations (nonprofits) and to small governmental jurisdictions (cities, counties, towns, townships, villages, school districts, and special districts with populations of less than 50,000). 5 U.S.C. §§ 601(4)-(6). We do not collect annual revenue data on EBS licensees.

⁸⁹ U.S. Census Bureau, 2007 NAICS Definitions, "517110 Wired Telecommunications Carriers," (partial definition), www.census.gov/naics/2007/def/ND517110.HTM#N517110.

⁹⁰ 13 C.F.R. § 121.201, NAICS code 517210.

⁹¹ U.S. Census Bureau, 2007 Economic Census, Sector 51, 2007 NAICS code 517210 (rel. Oct. 20, 2009), http://factfinder.census.gov/servlet/IBQTable?_bm=y&-geo_id=&-fds_name=EC0700A1&-_skip=700&-ds_name=EC0751SSSZ5&-_lang=en.

⁹² See Amendments to Parts 1, 2, 27 and 90 of the Commission's Rules to License Services in the 216-220 MHz, 1390-1395 MHz, 1427-1429 MHz, 1429-1432 MHz, 1432-1435 MHz, 1670-1675 MHz, and 2385-2390 MHz Government Transfer Bands, 17 FCC Rcd 9980 (2002) (*Government Transfer Bands Service Rules Report and Order*).

⁹³ See Reallocation of the 216-220 MHz, 1390-1395 MHz, 1427-1429 MHz, 1429-1432 MHz, 1432-1435 MHz, 1670-1675 MHz, and 2385-2390 MHz Government Transfer Bands, WT Docket No. 02-8, *Notice of Proposed Rulemaking*, 17 FCC Rcd 2500, 2550-51 ¶¶ 144-146 (2002). To be consistent with the size standard of "very small business" proposed for the 1427-1432 MHz band for those entities with average gross revenues for the three preceding years not exceeding \$3 million, the *Service Rules Notice* proposed to use the terms "entrepreneur" and "small business" to define entities with average gross revenues for the three preceding years not exceeding \$40

bands.⁹⁴ Correspondingly, the Commission adopted a bidding credit of 15 percent for “small businesses” and a bidding credit of 25 percent for “very small businesses.”⁹⁵ This bidding credit structure was found to have been consistent with the Commission’s schedule of bidding credits, which may be found at Section 1.2110(f)(2) of the Commission’s rules.⁹⁶ The Commission found that these two definitions will provide a variety of businesses seeking to provide a variety of services with opportunities to participate in the auction of licenses for this spectrum and will afford such licensees, who may have varying capital costs, substantial flexibility for the provision of services.⁹⁷ The Commission noted that it had long recognized that bidding preferences for qualifying bidders provide such bidders with an opportunity to compete successfully against large, well-financed entities.⁹⁸ The Commission also noted that it had found that the use of tiered or graduated small business definitions is useful in furthering its mandate under Section 309(j) to promote opportunities for and disseminate licenses to a wide variety of applicants.⁹⁹ An auction for one license in the 1670-1674 MHz band commenced on April 30, 2003 and closed the same day. One license was awarded. The winning bidder was not a small entity.

28. *Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing.* The Census Bureau defines this category as follows: “This industry comprises establishments primarily engaged in manufacturing radio and television broadcast and wireless communications equipment. Examples of products made by these establishments are: transmitting and receiving antennas, cable television equipment, GPS equipment, pagers, cellular phones, mobile communications equipment, and radio and television studio and broadcasting equipment.” The SBA has developed a small business size standard for Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing, which is: all such firms having 750 or fewer employees.¹⁰⁰ According to Census Bureau data for 2007, there were a total of 939 establishments in this category that operated for part or all of the entire year. Of this total, 784 had less than 500 employees and 155 had more

million and \$15 million, respectively. Because the Commission did not adopt small business size standards for the 1427-1432 MHz band, it instead uses the terms “small business” and “very small business” to define entities with average gross revenues for the three preceding years not exceeding \$40 million and \$15 million, respectively.

⁹⁴ See Letter from Hector V. Barreto, Administrator, Small Business Administration, to Margaret W. Wiener, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, Federal Communications Commission, dated Jan. 18, 2002.

⁹⁵ Such bidding credits are codified for the unpaired 1390-1392 MHz, paired 1392-1395 MHz, and the paired 1432-1435 MHz bands in 47 C.F.R. § 27.807. Such bidding credits are codified for the unpaired 1670-1675 MHz band in 47 C.F.R. § 27.906.

⁹⁶ In the *Part 1 Third Report and Order*, the Commission adopted a standard schedule of bidding credits, the levels of which were developed based on its auction experience. *Part 1 Third Report and Order*, 13 FCC Rcd at 403-04 ¶ 47; see also 47 C.F.R. § 1.2110(f)(2).

⁹⁷ See *Service Rules Notice*, 17 FCC Rcd at 2550-51 ¶ 145.

⁹⁸ See, e.g., Revision of Part 22 and Part 90 of the Commission’s Rules to Facilitate Future Development of Paging Systems; Implementation of Section 309(j) of the Communications Act -- Competitive Bidding, WT Docket No. 96-18, PR Docket No. 93-253, *Memorandum Opinion and Order on Reconsideration and Third Report and Order*, 14 FCC Rcd 10030, 10091 ¶ 112 (1999).

⁹⁹ 47 U.S.C. § 309(j)(3)(B), (4)(C)-(D). The Commission will also not adopt special preferences for entities owned by minorities or women, and rural telephone companies. The Commission did not receive any comments on this issue, and it does not have an adequate record to support such special provisions under the current standards of judicial review. See *Adarand Constructors v. Peña*, 515 U.S. 200 (1995) (requiring a strict scrutiny standard of review for government mandated race-conscious measures); *United States v. Virginia*, 518 U.S. 515 (1996) (applying an intermediate standard of review to a state program based on gender classification).

¹⁰⁰ 13 C.F.R. § 121.201, NAICS code 334220.

than 100 employees.¹⁰¹ Thus, under this size standard, the majority of firms can be considered small.

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

29. The proposed rules will not impose any new reporting, recordkeeping, or information collection requirements on small entities.

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

30. The RFA requires an agency to describe any significant, specifically small business alternatives that it has considered in reaching its proposed 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 or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) exemption from coverage of the rule, or any part thereof, for small entities.”¹⁰²

31. We seek comment generally on the effect the rule changes considered in this Second Further Notice would have on small entities, on whether alternative rules should be adopted for small entities in particular, and on what effect such alternative rules would have on those entities. We invite comment on ways in which the Commission can achieve its goals while minimizing the burden on small wireless service providers, equipment manufacturers, and other entities.

32. More specifically, we seek comment on possible alternatives to our tentative conclusion to adopt the new 2011 ANSI Standard into the Commission’s rules as an applicable technical standard for evaluating the hearing aid compatibility of wireless phones. We note that adopting the new technical standard as permissible rather than mandatory may ease burdens on manufacturers, including small entities, and we invite commenters to suggest alternatives that may further reduce possible burdens on small entities. We also tentatively conclude that adoption of this new technical standard would not raise any major compliance issues or impose materially greater obligations with respect to newly covered frequency bands and air interfaces than those already imposed under Commission rules. We seek comment on whether alternatives to adopting this new technical standard would impose lesser obligations on small entities.

33. Under the rules that we propose in the Second Further Notice, a multi-band and/or multi-mode handset model launched earlier than 12 months after *Federal Register* publication of new rules codifying the 2011 ANSI Standard would be considered hearing aid-compatible for operations covered under the 2007 ANSI Standard even if it has not obtained certification as being hearing aid-compatible for its other operations. This proposal is intended to reduce burdens on small entities and others with respect to handset models that are currently deployed or in development. For multi-band and/or multi-mode handset models launched after this period, as well as for handset models that only include operations covered under the 2007 ANSI Standard, we propose to retain the current principle that a handset model must meet ANSI C63.19 technical standards over all frequency bands and air interfaces over which it operates in order to be considered hearing aid-compatible over any air interface.¹⁰³ We invite commenters to suggest similar alternatives that may ease compliance burdens on small entities.

¹⁰¹ The NAICS Code for this service 334220. See 13 C.F.R 121/201. See also http://factfinder.census.gov/servlet/IBQTable?_bm=y&-fds_name=EC0700A1&-geo_id=&-_skip=300&-ds_name=EC0731SG2&-_lang=en

¹⁰² 5 U.S.C. §§ 603(c)(1)-(c)(4).

¹⁰³ See 47 C.F.R. § 20.19(b).

34. As a result of the proposed adoption of the 2011 ANSI Standard, after an appropriate transition period the deployment benchmarks set forth in paragraphs (c) and (d) of Section 20.19 would become applicable to manufacturers and service providers offering handsets that operate over newly covered frequency bands and air interfaces.¹⁰⁴ We seek comment on alternatives to the two-year transition period that would appropriately balance the design, engineering, and marketing requirements of manufacturers and service providers with the needs of consumers with hearing loss for compatible handsets over the newest network technologies. In recognition that smaller service providers may encounter greater difficulties transitioning to the 2011 ANSI Standard, we propose in the Second Further Notice that smaller service providers should have three months longer to transition than Tier I carriers. We invite comment on whether alternative transition periods, particularly for small entities, would further lessen the burden on small entities while protecting the interest of hard-of-hearing consumers in having access to a wide variety of wireless handsets.

35. Finally, handsets launched up to 12 months after *Federal Register* publication of rules adopting the 2011 ANSI Standard that meet hearing aid compatibility criteria under previously covered air interfaces, but that have been tested and found not to meet such criteria under one or more newly covered air interfaces, shall include adequate disclosure of this fact under rules to be promulgated by WTB and OET.¹⁰⁵ In the absence of any suggestions as to specific language to be used for handsets that have been tested under newly covered air interfaces and found not to meet hearing aid compatibility criteria, we propose not to prescribe disclosure language in this situation but to rely on a general disclosure requirement backed by case-by-case resolution in the event of disputes. We seek comment on whether any alternative proposals may further reduce the impact on small entities.

36. For the duration of this docketed proceeding, the Commission will continue to examine alternatives with the objectives of eliminating unnecessary regulations and minimizing any significant economic impact on small entities.

F. Federal Rules that May Duplicate, Overlap, or Conflict with the Proposed Rules

37. None.

¹⁰⁴ 47 C.F.R. § 20.19(c), (d).

¹⁰⁵ See *2010 Second Report and Order*, 25 FCC Rcd at 11180 ¶ 33.