

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 )
Section 68.4(a) of the Commission's Rules ) WT Docket No. 01-309
Governing Hearing Aid Compatible Telephones )
Petition of American National Standards Institute )
Accredited Standards Committee C63 (EMC) )
ANSI ASC C63™ )

SECOND REPORT AND ORDER
AND
NOTICE OF PROPOSED RULEMAKING

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By the Commission:

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## I. INTRODUCTION

1. Over the past four years, wireless service providers and manufacturers have made significant progress in achieving the Commission’s goals to improve wireless services for the deaf and hard of hearing community through increased access to hearing aid-compatible handsets. Nonetheless, with ongoing developments in technology and in the market, ensuring the availability of hearing aid-compatible handsets to hard of hearing consumers, as well as information about such handsets, must remain a high priority for the Commission. In this item, we take steps to ensure that hearing aid users will continue to benefit from the convenience and features offered by the newest wireless communications systems being provided to American consumers, a goal the Commission established in 2003 in the *Hearing Aid Compatibility Order*.<sup>1</sup> To the extent people who use hearing aids have difficulty finding a wireless mobile telephone that functions effectively with those devices because of interference or compatibility problems, a continued expansion in the number and availability of hearing aid-compatible wireless telephones is warranted. The actions we propose are designed to take account of changing market and technological conditions.

2. In this Second Report and Order, we address the two specific potential rule changes on which the Commission sought comment in 2005 in the notice of proposed rulemaking portion of the *Hearing Aid Compatibility Reconsideration Order and Further Notice*.<sup>2</sup> On the first of these, we conclude that the current record does not support expanding the mandate for in-store demonstrations to independent retailers at this time. As regards the second, we decide, again based on the current record, not to narrow or otherwise change at this time the *de minimis* rule that exempts service providers and manufacturers with small product lines from the hearing aid compatibility regime. We do, however, seek renewed comment on these two issues in the Notice of Proposed Rulemaking (“Notice”) that we are initiating today as part of the Commission’s ongoing effort to evaluate possible rule changes in light of new as well as anticipated technological and market developments.

3. In this Notice, we reexamine the Commission’s existing hearing aid compatibility requirements to ensure that they will continue to be effective in an evolving marketplace of new technologies and services. We undertake this review in accordance with the Commission’s commitment in the 2003 *Hearing Aid Compatibility Order* to initiate a new rulemaking proceeding to evaluate: “(1) whether to increase [or] decrease the 2008 requirement to provide 50 percent of phone models that comply with a U3 rating; (2) whether to adopt [hearing aid compatibility] implementation benchmarks beyond 2008; and (3) whether to otherwise modify the [hearing aid compatibility] requirements.”<sup>3</sup> To assist in forming the basis for initiating this rulemaking, the Commission directed that staff deliver to the

<sup>1</sup> See 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, 16755 ¶ 4 (2003); *Erratum*, 18 FCC Rcd 18047 (2003) (*Hearing Aid Compatibility Order*).

<sup>2</sup> See Section 68.4(a) of the Commission’s Rules Governing Hearing Aid-Compatible Telephones, WT Docket No. 01-309, *Order on Reconsideration and Further Notice of Proposed Rulemaking*, 20 FCC Rcd 11221 (2005) (*Hearing Aid Compatibility Reconsideration Order and Further Notice*).

<sup>3</sup> See *Hearing Aid Compatibility Order*, 18 FCC Rcd at 16782-83 ¶ 74.

Commission a report that assesses the impact of the hearing aid compatibility rules in achieving greater compatibility between hearing aids and digital wireless phones and that examines the development of new technologies that could provide greater and more efficient accessibility of wireless telecommunications to hearing aid users.<sup>4</sup> The Wireless Telecommunications Bureau (WTB), in WT Docket No. 06-203, recently released the *Staff Report*, which examines recent developments and includes several recommendations.<sup>5</sup>

4. In light of the current marketplace and in anticipation of future developments in wireless offerings, we seek comment in this Notice on various possible revisions to the Commission's hearing aid compatibility policies and requirements pertaining to wireless services. The proposals set forth herein draw upon recommendations proposed in the *Staff Report*. Several of these proposals, in turn, are based on an interconnected set of rule changes set forth in a consensus plan (Joint Consensus Plan) recently developed jointly by industry and representatives for the deaf and hard of hearing community. The specifics of the Joint Consensus Plan, along with a proposed model rule,<sup>6</sup> are contained in the Supplemental Comments of the Alliance for Telecommunications Industry Solutions (ATIS), which was submitted as part of the record in WT Docket No. 06-203.<sup>7</sup> ATIS states that its working group developed a comprehensive plan reflecting the joint input of the wireless industry and consumers with hearing loss.<sup>8</sup> The participants included many wireless service providers and equipment manufacturers, as well as Alexander Graham Bell Association for the Deaf and Hard of Hearing (AG Bell), Hearing Loss Association of America (HLAA), Gallaudet University Technology Access Program (TAP), and Rehabilitation Engineering Research Center on Telecommunications Access (RERC).<sup>9</sup>

5. As recommended in the *Staff Report*, we tentatively conclude substantially to adopt the provisions of the Joint Consensus Plan, and we seek comment on this tentative conclusion and several related matters. In particular, we tentatively conclude to modify the handset deployment deadlines in Section 20.19 along the framework proposed in the Joint Consensus Plan, including (1) modifying the upcoming February 18, 2008 benchmark that requires that manufacturers and wireless service providers ensure that at least 50 percent of their handset models over each air interface meet a U3/M3 or better rating for radio frequency (RF) interference reduction and (2) imposing new benchmarks for deploying handsets that meet standards for providing inductive coupling capability.<sup>10</sup> We also tentatively conclude in the Notice to impose new requirements on manufacturers and service providers such that they must include in their portfolios of hearing aid-compatible handsets a certain number of new models and models

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<sup>4</sup> *Id.*

<sup>5</sup> See Section 68.4(a) of the Commission's Rules Governing Hearing Aid-Compatible Telephones, WT Docket No. 01-309, WT Docket No. 06-203, *Report on the Status of Implementation of the Commission's Hearing Aid Compatibility Requirements*, DA 07-4151 (WTB rel. Oct. 5, 2007) (*Staff Report*). In November 2006, WTB opened this docket, seeking comment from the public on issues that should be addressed in the staff report. Wireless Telecommunications Bureau Seeks Comments on Topics to be Addressed in Hearing Aid Compatibility Report, *Public Notice*, 21 FCC Rcd 13136 (2006) (*Staff Report Public Notice*). Comments are summarized in the *Staff Report*.

<sup>6</sup> See *infra* Appendix B (containing changes to Section 20.19 of the Commission's rules proposed in Joint Consensus Plan); see also Letter of ATIS in WT Docket No. 06-203 (filed Oct. 3, 2007) (clarifying text of proposed Section 20.19(c)(1)(iii)(B)).

<sup>7</sup> See Supplemental Comments of ATIS in WT Docket No. 06-203 (filed June 25, 2007) (Joint Consensus Plan).

<sup>8</sup> Joint Consensus Plan at 3.

<sup>9</sup> *Id.*

<sup>10</sup> See 47 C.F.R. § 20.19(c), (d).

with different levels of functionality, including the capability to operate over different frequency bands, in order to ensure that people with hearing loss have access to new, advanced devices. In addition to these steps, we tentatively conclude to adopt an updated technical standard as proposed in the Joint Consensus Plan,<sup>11</sup> and we seek comment on proposed new reporting, information, and outreach measures, as well as other interrelated proposals in the Joint Consensus Plan. While we recognize that the Joint Consensus Plan proposals were developed through significant investigation and negotiation by the working group and its members,<sup>12</sup> we also seek comment on possible alterations or additions to certain aspects of its proposals that may better implement our hearing aid compatibility goals. Finally, consistent with the recommendations in the *Staff Report*, we seek comment on how to better employ our hearing aid compatibility regulations in the context of emerging technologies and open platforms for devices and applications.

6. Our intent is to issue a Report and Order addressing the issues raised in this Notice in the near future, in advance of the upcoming February 18, 2008 benchmark. As discussed above, we tentatively conclude that we will revise this benchmark and impose new ones in its place. In consideration of the need for certainty, and in order to provide appropriate notification to manufacturers and service providers as to the applicable hearing aid compatibility obligations, we will stay enforcement of the February 18, 2008 benchmark for 60 days, until April 18, 2008.

## II. BACKGROUND

7. In the *Hearing Aid Compatibility Order* adopted in 2003, the Commission took a number of actions to further the ability of persons with hearing disabilities to access digital wireless telecommunications.<sup>13</sup> The Commission adopted these requirements under authority of the Hearing Aid Compatibility Act of 1988.<sup>14</sup> These requirements were later modified slightly in the *Hearing Aid Compatibility Reconsideration Order and Further Notice* adopted in 2005.<sup>15</sup>

8. The Commission's hearing aid compatibility rules apply generally to providers of digital commercial mobile radio services (CMRS) "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," as well as to manufacturers of wireless phones used in the delivery of such services.<sup>16</sup>

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<sup>11</sup> On June 25, 2007, the American National Standards Institute Accredited Standards Committee C63 filed a petition seeking adoption of the 2007 revision of the ANSI C63.19 technical standard in place of the 2001, 2005 draft, and 2006 versions of the technical standard. See Petition of American National Standards Institute (ANSI) Accredited Standards Committee C63 (EMC) - ANSI ASC C63 filed on June 25, 2007, in WT Docket No. 01-309 (ANSI Petition).

<sup>12</sup> See Joint Consensus Plan at 15; see also *id.* at 15-16 (stating "[a]s a result, all elements of this proposal, regardless of how small, are critical to its success").

<sup>13</sup> See generally *Hearing Aid Compatibility Order*, 18 FCC Rcd 16753.

<sup>14</sup> See Pub. L. No. 100-394, 102 Stat. 976 (1988), codified at 47 U.S.C. § 610.

<sup>15</sup> See *Hearing Aid Compatibility Reconsideration Order*, 20 FCC Rcd at 11208-09 ¶¶ 26-27.

<sup>16</sup> 47 C.F.R. § 20.19(a); see also In the Matter of Service Rules for the 698-746, 747-762 and 777-792 MHz Bands, WT Docket 06-150, *Report and Order and Further Notice of Proposed Rulemaking*, 22 FCC Rcd 8064, 8117-18 ¶ 142 (2007) (*700 MHz Service Report and Order*). CMRS is defined as mobile service that is provided for profit, interconnected, and available to the public. 47 C.F.R. § 20.3; see 47 U.S.C. § 332(d)(1). We note that telephones used with public mobile services, as well as those used with private radio services, are exempt from the general statutory requirement that all telephones meet hearing aid compatibility standards. 47 U.S.C. § 610(b)(2)(A); see also 47 C.F.R. § 68.4. In 1994, Congress amended Section 332 of the Communications Act, replacing the public (continued....)

Only Broadband Personal Communications Services (PCS), Cellular Radiotelephone Service (cellular), and Specialized Mobile Radio (SMR) Services in the 800 MHz and 900 MHz bands currently are subject to specific hearing aid compatibility standards pursuant to Section 20.19 of the rules.<sup>17</sup> Earlier this year, in the *700 MHz Service Report and Order*, we extended the hearing aid compatibility requirements to all providers of digital CMRS that meet the specified criteria, including providers of such service in the 700 MHz, Advanced Wireless Services, and Broadband Radio Service/Educational Broadband Service bands, and to manufacturers of handsets capable of providing such services, once applicable technical standards are established in the relevant bands.<sup>18</sup> We also established a timetable for the development of the necessary technical standards for new services and frequency bands that have governing service rules in place and for incorporation of requirements based on those standards into our rules.<sup>19</sup>

9. *Current Hearing Aid Compatibility Requirements.* Under the Commission's existing hearing aid compatibility requirements, both manufacturers and digital wireless service providers must take steps to increase the number of hearing aid-compatible handset models available according to a phased-in deployment schedule.<sup>20</sup> The Commission's hearing aid compatibility requirements address hearing aids that operate in either of two modes – acoustic coupling or inductive coupling. Hearing aids operating in acoustic coupling mode receive and amplify all sounds surrounding the user, including desired sounds, such as a telephone's audio signal, as well as unwanted ambient noise.<sup>21</sup> Hearing aids operating in inductive coupling mode avoid amplifying unwanted ambient noise by turning off the microphone and using a telecoil to receive only audio signal-based magnetic fields generated by telecoil-compatible telephones.<sup>22</sup>

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mobile service and private radio service categories with CMRS and private mobile [radio] service (PMRS). See *Hearing Aid Compatibility Order*, 18 FCC Rcd at 16764-65 ¶ 26. "Public mobile service" is defined to include certain services covered under Part 22 of our rules. 47 U.S.C. § 610(b)(4)(B); 47 C.F.R. § 68.3.

<sup>17</sup> See 47 C.F.R. § 20.19(b); *700 MHz Service Report and Order*, 22 FCC Rcd at 8119 ¶¶ 145-147. The existence of an established, applicable technical standard is a statutory requirement for imposing hearing aid compatibility requirements. See 47 U.S.C. § 610.

<sup>18</sup> *700 MHz Service Report and Order*, 22 FCC Rcd 8117-20 ¶¶ 142-150.

<sup>19</sup> *Id.* at 8119-20 ¶¶ 148-150. Specifically, we established a 24-month timetable for interested stakeholders to develop standards in these bands. See *id.* We stated that once the appropriate technical standards are established, the Commission would initiate a further proceeding to establish a specific timetable for deployment of hearing aid-compatible handsets for services in the relevant bands. *Id.* at 8119 ¶ 148.

<sup>20</sup> See *Hearing Aid Compatibility Order*, 18 FCC Rcd at 16780 ¶¶ 65-66; 47 C.F.R. § 20.19(c), (d).

<sup>21</sup> The *Hearing Aid Compatibility Order* described acoustic coupling as follows:

In acoustic coupling mode, the microphone picks up surrounding sounds, desired and undesired, and converts them into electrical signals. The electrical signals are amplified as needed and then converted back into sound by the hearing aid speaker.

*Hearing Aid Compatibility Order*, 18 FCC Rcd at 16763 ¶ 22.

<sup>22</sup> In telecoil mode, with the microphone turned off, the telecoil picks up the audio signal-based magnetic field generated by the voice coil of a dynamic speaker in hearing aid-compatible telephones, audio loop systems, or powered neck loops. The hearing aid converts the magnetic field into electrical signals, amplifies them as needed, and converts them back into sound via the speaker. Using a telecoil avoids the feedback that often results from putting a hearing aid up against a telephone earpiece, can help prevent exposure to over amplification, and eliminates background noise, providing improved access to the telephone.

10. The rules codify the American National Standards Institute (ANSI) C63.19 performance levels as the applicable technical standard for hearing aid compatibility.<sup>23</sup> The Commission determined that the standard presents a workable approach to measuring levels of interference that digital wireless handsets could cause to hearing aids, as well as for measuring the interference immunity of hearing aids.<sup>24</sup> To ensure that the standard codified in the rules would remain viable, the Commission delegated to the Chief of WTB, in coordination with the Chief of the Office of Engineering and Technology (OET), the authority to approve future versions of the standard that do not raise major compliance issues. Pursuant to this authority, the Commission staff has permitted applicants for equipment certification to rely on either the 2001, 2005, or 2006 version of the ANSI standard.<sup>25</sup> Where major changes to the standard are made that could affect compliance, the Commission stated it would initiate an appropriate rulemaking proceeding to consider adoption of updated versions.<sup>26</sup> The Commission also encouraged ANSI to work with the relevant stakeholders to review the standard periodically to determine whether improvements to the standard are warranted.<sup>27</sup>

11. With respect to acoustic coupling operation, the Commission generally requires each covered manufacturer and service provider to offer specific numbers of handset models per air interface in its product line (*i.e.*, CDMA, TDMA, GSM, and iDEN)<sup>28</sup> that meet, at a minimum, an M3 rating (formerly denominated a U3 rating) for reduction of RF interference between handsets and hearing aids in acoustic coupling mode, as set forth in the ANSI C63.19 technical standard.<sup>29</sup> The Commission also established separate requirements to offer specific numbers of handset models per air interface that meet at least a T3 rating (formerly denominated a U3T rating) to enable inductive coupling with hearing aids operating in telecoil mode.<sup>30</sup> If a handset manufacturer or service provider offers a multi-band handset in order to comply with these requirements, the handset must be hearing aid-compatible in each frequency band.<sup>31</sup>

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<sup>23</sup> See 47 C.F.R. § 20.19(b)(1)-(2).

<sup>24</sup> See *Hearing Aid Compatibility Order*, 18 FCC Rcd at 16776 ¶ 55.

<sup>25</sup> See 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 (WTB/OET 2006).

<sup>26</sup> See *Hearing Aid Compatibility Order*, 18 FCC Rcd at 16779 ¶ 63.

<sup>27</sup> See *id.*

<sup>28</sup> See *id.* at 16780 ¶ 65. The term air interface refers to the system that ensures compatibility between mobile radio service equipment, such as handsets, and the service provider's base stations. Currently, the leading air interfaces include Code Division Multiple Access (CDMA), Global System for Mobile Communications (GSM), Integrated Dispatch Enhanced Network (iDEN), Time Division Multiple Access (TDMA) and Wideband Code Division Multiple Access (WCDMA). We note that WCDMA is also known as Universal Mobile Telecommunications System (UMTS).

<sup>29</sup> See *id.*; 47 C.F.R. § 20.19(b)(1), (c)(1)-(3). The 2001 version of ANSI Standard C63.19, which the Commission adopted in the *Hearing Aid Compatibility Order*, used a "U" nomenclature for RF interference reduction, and this nomenclature is referenced in Section 20.19 of the Commission's rules. Subsequently, the 2006 version of this standard substituted the "M" nomenclature. For purposes of clarity, we will use the "M" nomenclature throughout this item when referring to RF interference reduction ratings, unless referring to specific text that uses the "U" nomenclature.

<sup>30</sup> See *Hearing Aid Compatibility Order*, 18 FCC Rcd at 16780 ¶ 65; 47 C.F.R. § 20.19(b)(2), (d). The 2006 version of ANSI Standard C63.19 substituted "T" nomenclature for the "UT" terminology that was used in the 2001 version of the standard. For purposes of clarity, we will use the "T" terminology throughout this item when referring to inductive coupling compatibility ratings.

<sup>31</sup> See Section 68.4(a) of the Commission's Rules Governing Hearing Aid-Compatible Telephones, Cingular Wireless LLC Petition for Waiver of Section 20.19(c)(3)(i)(A) of the Commission's Rules, *Memorandum Opinion* (continued....)

The Commission further established that, before a handset can be offered in satisfaction of these obligations, the handset manufacturer must first certify that it is compliant with the compatibility requirements through the Commission's equipment authorization process as set forth in Section 2.1033(d) of the Commission's rules.<sup>32</sup>

12. The hearing aid compatibility rules set forth a series of specific, phased-in benchmarks for manufacturers and service providers to deploy handsets that meet these compatibility thresholds between 2005 and 2008.<sup>33</sup> The rules required that:

- by September 16, 2005, each digital wireless handset manufacturer make available to wireless service providers, and each such provider make available to consumers, at least two handset models for each air interface it offers which provide the reduced RF emissions (M3 rating) necessary to enable acoustic coupling without interference;
- by September 16, 2005, each Tier I (*i.e.*, nationwide) wireless carrier<sup>34</sup> providing digital wireless services make available to consumers at least four handset models for each air interface it offers that provides reduced RF emissions (M3 rating), or 25 percent of the total number of handset models it offers, whichever is greater;
- by September 16, 2006, each Tier I wireless carrier providing digital wireless services make available to consumers at least five handset models for each air interface it offers that provides reduced RF emissions (M3 rating), or 25 percent of the total number of handset models it offers, whichever is greater; and
- by September 16, 2006, each digital wireless handset manufacturer make available to wireless service providers, and each provider of public mobile radio services make available to consumers, at least two handset models for each air interface it offers that provide telecoil (inductive) coupling capability (T3 rating).

13. The requirements to offer specific numbers of compatible handset models for "each air interface" mean that the manufacturer or service provider must offer that number of compatible models capable of operating over that air interface. Thus, for example, a manufacturer that produces handsets capable of operating over the GSM air interface, regardless of whether some or all of those models also operate over other air interfaces, must produce at least two such models (either single-mode or multi-mode) that meet an M3 or higher rating.

14. The current handset deployment benchmarks also currently require that by February 18, 2008, at least 50 percent of all digital wireless handset models offered by manufacturers or digital wireless service providers per air interface offered must meet an M3 rating.<sup>35</sup> Finally, the rules contain a

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*and Order*, WT Docket No. 01-309, 20 FCC Rcd 15108, 15115 ¶ 17 (2005) (*Dual-Band GSM Waiver Order*) (Commission permitted handset manufacturers and service providers offering dual-band GSM wireless handsets operating in both the 850 MHz and 1900 MHz bands additional time, until August 1, 2006, for making available handsets with a U3 (*i.e.*, M3) or higher rating in both bands).

<sup>32</sup> See *Hearing Aid Compatibility Order*, 18 FCC Rcd at 16783 ¶ 75; 47 C.F.R. § 20.19(b)(3).

<sup>33</sup> See 47 C.F.R. § 20.19(c)-(d).

<sup>34</sup> The four (formerly six) nationwide CMRS carriers, AT&T Services, Inc., Verizon Wireless, Sprint Nextel, and T-Mobile USA are considered Tier I carriers. See Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, Phase II Compliance Deadlines for Non-Nationwide CMRS Carriers, *Order to Stay*, 17 FCC Rcd 14841, 14843 ¶ 7 (2002) (*Non-Nationwide Carriers Order*).

<sup>35</sup> 47 C.F.R. § 20.19(c).

de minimis exception to these benchmarks for certain digital wireless handset manufacturers and wireless service providers.<sup>36</sup>

15. In addition, the 2003 *Hearing Aid Compatibility Order* imposed certain implementation requirements not codified in the rules. Those requirements include an obligation on the part of manufacturers and digital wireless service providers to report every six months on efforts toward compliance with the hearing aid compatibility requirements for the first three years of implementation and then annually thereafter through the fifth year of implementation.<sup>37</sup> Other obligations imposed concerned product labeling and live, in-store consumer testing of digital wireless handsets.<sup>38</sup>

16. Upon first establishing hearing aid compatibility requirements, the Commission indicated that it would monitor compliance and consider other opportunities to further the ability of persons with hearing disabilities to access digital wireless telecommunications. In the 2003 *Hearing Aid Compatibility Order*, the Commission set forth three aspects of its rules that it planned to consider prior to 2008: “(1) whether to increase [or] decrease the 2008 requirement to provide 50 percent of phone models that comply with a U3 rating; (2) whether to adopt [hearing aid compatibility] implementation benchmarks beyond 2008; and (3) whether to otherwise modify the [hearing aid compatibility] requirements.”<sup>39</sup> The Commission also stated that prior to such a proceeding, “FCC staff will deliver to the Commission a report” on: (1) “the impact of our rules in achieving greater compatibility between hearing aids and digital wireless phones”; (2) “the development of new technologies that could provide greater or more efficient accessibility of wireless telecommunications to hearing aid users”; and (3) “the impact of this Order’s compatibility requirements on cochlear implant and middle ear implant users and their ability to use digital wireless phones.”<sup>40</sup> Moreover, in reconsidering certain aspects of Section 20.19 in the 2005 *Hearing Aid Compatibility Reconsideration Order and Further Notice*,<sup>41</sup> the Commission explained that it collects data on hearing aid compatibility to comply with Congress’ requirement that the Commission periodically review and scrutinize its hearing aid compatibility regulations.<sup>42</sup> The Commission also reiterated its commitment to revisit the February 18, 2008, 50 percent handset deployment benchmark.<sup>43</sup>

17. *Hearing Aid Compatibility Further Notice*. In the notice portion of the 2005 *Hearing Aid Compatibility Reconsideration Order and Further Notice*, the Commission sought comment on two outstanding issues: (1) whether to extend the live, in-store consumer testing requirement to retail outlets that are not directly owned or operated by wireless carriers or service providers; and (2) whether to narrow the *de minimis* exception, for instance by exempting from the hearing aid compatibility requirements only wireless carriers, service providers, and handset manufacturers that offer one digital

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<sup>36</sup> 47 C.F.R. § 20.19(e)(1)-(2) .

<sup>37</sup> See *Hearing Aid Compatibility Order*, 18 FCC Rcd at 16787 ¶¶ 89-91.

<sup>38</sup> See 47 C.F.R. § 20.19(f).

<sup>39</sup> See *Hearing Aid Compatibility Order*, 18 FCC Rcd at 16782-83 ¶ 74.

<sup>40</sup> *Id.*

<sup>41</sup> The Commission modified the preliminary handset deployment benchmark specific to Tier I wireless carriers to provide greater regulatory certainty, while simultaneously ensuring a broad array of choices for persons with hearing disabilities who seek to purchase hearing aid-compatible wireless phones. See *Hearing Aid Compatibility Reconsideration Order and FNPRM*, 20 FCC Rcd at 11208-09 ¶¶ 26-27.

<sup>42</sup> See *id.* at 11241 ¶ 44; see also 47 U.S.C. § 610(f).

<sup>43</sup> *Hearing Aid Compatibility Reconsideration Order and Further Notice*, 20 FCC Rcd at 11241 ¶ 44.

wireless handset model per air interface.<sup>44</sup> Four parties filed comments in the proceeding, and three filed replies.<sup>45</sup>

18. Five commenters argue that the Commission should not extend the testing requirement to independent retailers, arguing that the Commission lacks legal authority to do so and that, even if it had such authority, the lack of a record of problems experienced by purchasers, combined with the practical difficulties of implementation, would make a decision to do so unadvisable.<sup>46</sup> One commenter – a hearing aid manufacturers’ association – favors extending this requirement, asserting the Commission has the necessary jurisdiction and that doing so would create a “level playing field” for all handset vendors.<sup>47</sup> Only two commenters address the *de minimis* issue, and both oppose any changes to the *de minimis* rule.<sup>48</sup>

19. *Staff Report*. As discussed above, in the 2003 *Hearing Aid Compatibility Order* the Commission directed that Commission staff deliver to the Commission a report that assesses the impact of the hearing aid compatibility rules in achieving greater compatibility between hearing aids and digital wireless phones and that examines the development of new technologies that could provide greater and more efficient accessibility of wireless telecommunications to hearing aid users.<sup>49</sup> On November 8, 2006, the Wireless Telecommunications Bureau (WTB) sought comment on possible topics for evaluation in its report to the Commission.<sup>50</sup> Twenty comments and thirteen replies were filed.<sup>51</sup>

20. Recently released, the *Staff Report* reviews the status of implementation of the Commission’s hearing aid compatibility requirements and offers specific recommendations to assist the Commission in making additional changes to those requirements so that they may remain effective in the evolving marketplace of new technologies and services. Among other things, Commission staff recommend that we seek input on how to promote more complete compatibility between wireless communications devices and hearing aids by: considering how to improve in-store testing and the availability of public information regarding hearing aid-compatible handsets; considering how to improve the quality and usefulness of the information reported in the wireless industry’s compliance reports; continuing to monitor enhancements to existing wireless technologies as well as hearing aid labeling and related issues; and seeking comment on emerging issues, including issues arising out of the development of wireless Voice over Internet Protocol (VoIP) applications<sup>52</sup> and “open platform” networks.<sup>53</sup>

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<sup>44</sup> See *id.* at 11248-49 ¶¶ 62-65.

<sup>45</sup> Party names and short forms are listed in Appendix A.

<sup>46</sup> See, e.g., Cingular Comments at 1; RadioShack Comments at 4-5; T-Mobile Reply Comments at 3.

<sup>47</sup> HIA Reply Comments at 2.

<sup>48</sup> See Research in Motion Comments at 1-2; Cingular Comments at 4.

<sup>49</sup> See *Hearing Aid Compatibility Order*, 18 FCC Rcd at 16782-83 ¶ 74.

<sup>50</sup> *Staff Report Public Notice*, 21 FCC Rcd 13136.

<sup>51</sup> See *Staff Report*, Appendix.

<sup>52</sup> Wireless VoIP refers to VoIP service provided over wireless networks, including cellular system architecture networks as well as wireless networks utilizing WiFi and WiMax technologies. See *infra* Section IV.E. WiFi (Wireless Fidelity) is a wireless technology that is based on the Institute of Electrical and Electronics Engineers (IEEE) 802.11 standards. WiMAX (Worldwide Interoperability for Microwave Access) is a wireless technology that is based on the IEEE 802.16 standards.

<sup>53</sup> See *Staff Report* at ¶ 86.

21. In addition, the *Staff Report* specifically recommends seeking comment on the several proposed rule changes set forth in the Joint Consensus Plan filed by ATIS on June 25, 2007, in WT Docket No. 06-203.<sup>54</sup> The Joint Consensus Plan is made up of several proposed interrelated rule changes to Section 20.19. ATIS urges the Commission to act on these proposals “expeditiously so that the industry can meet the obligations by February 18, 2008.”<sup>55</sup> First, the Joint Consensus Plan proposes several changes to the deadlines and other provisions requiring service providers and manufacturers to make available certain types of hearing aid-compatible phones, including: (1) “provid[ing] Tier I carriers with an alternative to the 50 percent rule for M-rated phones”; (2) “increas[ing] the number of T3-or-better phones that Tier I carriers must make available”; (3) “requir[ing] manufacturers to offer thirty three (33) percent of wireless phones at the M3-or-better level”; and (4) requiring “each manufacturer not subject to the *de minimis* exception . . . [to] produce at least two or more T3-or-better handsets.”<sup>56</sup> These changes include new rules requiring manufacturers each year to include a certain number of new products among their hearing aid-compatible models, and requiring Tier I carriers to provide hearing aid-compatible models from multiple tiers of functionality.<sup>57</sup> Second, the Joint Consensus Plan proposes a transition to phase-in the 2007 version of the ANSI C63.19 standard for hearing aid compatibility testing.<sup>58</sup> Third, the Joint Consensus Plan proposes that service providers and manufacturers report regularly on the availability of products under updated criteria for information submissions.<sup>59</sup> Finally, to further accessibility to hearing aid-compatible phones, the Joint Consensus Plan proposes other steps that the Commission should take to adequately address hearing aid compatibility of wireless handsets.<sup>60</sup> Most of these proposals consider appropriate modifications only to rules for manufacturers and Tier I carriers, and do not address the Commission’s future hearing aid compatibility requirements for Tier II and Tier III carriers, or other service providers.<sup>61</sup>

### III. SECOND REPORT AND ORDER

22. In the Second Report and Order, we discuss the two specific issues on which the Commission sought comment in the *Hearing Aid Compatibility Further Notice*: (1) whether to extend to independent retailers the requirement to make hearing aid-compatible handset models offered for sale available for consumer testing in the store; and (2) whether to narrow or otherwise change the *de minimis* rule that exempts service providers and manufacturers with small product lines from hearing aid compatibility requirements. As discussed below, we determine that the record does not support any revisions on these issues at this time. We do, however, provide the opportunity for additional comment on these issues in response to the Notice we are initiating.

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<sup>54</sup> *Id.*

<sup>55</sup> Joint Consensus Plan at 14.

<sup>56</sup> *Id.* at 4, 9 n.14.

<sup>57</sup> *Id.* at 4, 12.

<sup>58</sup> *Id.* at 4. In its separate petition, ANSI states that the 2007 standard includes further improvements that have been made to the technical standard to reflect changes in technology, and efficiencies and improvements in testing procedures. See ANSI Petition at 2.

<sup>59</sup> Joint Consensus Plan at 4.

<sup>60</sup> See *infra* ¶ 86 (seeking comment on *inter alia* a further review of hearing aid compatibility rules in 2010).

<sup>61</sup> The one exception is the proposal in the Joint Consensus Plan for delaying reporting requirements for Tier II and III carriers. See *infra* ¶ 70. Tier II carriers are non-nationwide wireless radio service providers with more than 500,000 subscribers. Tier III carriers are non-nationwide wireless radio service providers with 500,000 or fewer subscribers. See *Non-Nationwide Carriers Order*, 17 FCC Rcd at 14847 ¶¶ 22-24.

### A. In-Store Testing

23. Background. Section 20.19(c) and (d) of the Commission's rules requires that wireless service providers make their hearing aid-compatible handset models available for consumer testing in each retail store that they own or operate.<sup>62</sup> In the *Hearing Aid Compatibility Reconsideration Order and Further Notice*, the Commission clarified that this requirement applies to retail outlets owned or operated by wireless carriers or service providers, but not to independent retailers.<sup>63</sup> The Commission sought further comment on whether extending that requirement to independent retailers would be within the Commission's authority, and if so whether it should be done.<sup>64</sup> The Commission was specifically concerned that limiting the testing requirement to carrier-owned or -operated retail outlets might interfere with full implementation of Congress' requirement that the Commission "establish such regulations as are necessary to ensure reasonable access to telephone service by persons with impaired hearing."<sup>65</sup> The Commission also sought comment on the impact that this proposal would have on small business retailers and independent retailers, whether extending this requirement would create a more level playing field for different types of retailers, and the extent to which extending this requirement might create an unacceptable burden for independent retailers, small business retailers, or both.<sup>66</sup>

24. At the same time, the Commission sought comment on whether it had legal authority to impose such a requirement on independent retailers, and if so, the scope of that authority.<sup>67</sup> In this regard, the Commission specifically sought comment on the degree to which the relationship between independent retailers, whether large or small, and wireless carriers and service providers could have an impact on enforcement of a live, in-store consumer testing requirement.<sup>68</sup> This included whether, under Section 217 of the Communications Act,<sup>69</sup> the Hearing Aid Compatibility Act,<sup>70</sup> or general principles of agency law, the Commission could require those service providers, in their contracts with retailers selling their wireless services, to offer live, in-store consumer testing.<sup>71</sup> Six parties filed comments or reply comments addressing this issue.

25. Cingular, T-Mobile, CompUSA, CERC, and Radio Shack strongly oppose extension of the in-store testing requirement both on practical grounds and on the grounds that the Commission lacks jurisdiction to impose such a requirement. These parties argue that nothing in the Hearing Aid Compatibility Act or any other statute grants such authority<sup>72</sup> and that the Commission's ancillary jurisdiction to regulate in areas not expressly covered by statute is limited.<sup>73</sup> Regardless of whether the

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<sup>62</sup> 47 C.F.R. § 20.19(c), (d).

<sup>63</sup> *Hearing Aid Compatibility Reconsideration Order and Further Notice*, 20 FCC Rcd at 11239 ¶ 39.

<sup>64</sup> *Id.* at 11248-49 ¶¶ 62-65.

<sup>65</sup> 47 U.S.C. § 610(a).

<sup>66</sup> *Hearing Aid Compatibility Reconsideration Order and Further Notice*, 20 FCC Rcd at 11248 ¶ 63.

<sup>67</sup> *Id.* at 11249 ¶¶ 62-65.

<sup>68</sup> *Id.*

<sup>69</sup> 47 U.S.C. § 217.

<sup>70</sup> 47 U.S.C. § 610(b).

<sup>71</sup> *Hearing Aid Compatibility Reconsideration Order and Further Notice*, 20 FCC Rcd at 11249 ¶ 64.

<sup>72</sup> Cingular Comments at 1; Radio Shack Comments at 4-5.

<sup>73</sup> See Radio Shack Comments at 9 (citing *Am'n Library Ass'n v. FCC*, 406 F.3d 689 (D.C. Cir. 2005)); see also CERC Comments at 4 (stating that the Commission has, "at best," power to remove a product from the market, (continued....))

Commission has the authority to act, the same commenters advise against it on policy grounds, noting that the logistics of implementation would be daunting, requiring viable connections to all networks in all stores, and stating that security and theft of handsets would be a problem.<sup>74</sup> Moreover, they state that sales staff are not trained for such practices,<sup>75</sup> the cost of manpower and demonstration phones would be high,<sup>76</sup> and retailers already honor a 30-day return policy for mobile phones, which allows for extensive real-world environment testing.<sup>77</sup>

26. The Hearing Industries Association (HIA), a hearing aid manufacturers' association, supports extending the in-store demonstration requirement. HIA argues that "Congress could not have been clearer in its intent"<sup>78</sup> to authorize regulation to ensure access to telephone service by persons with impaired hearing, citing Section 710(a) of the Communications Act, which states that "[t]he Commission shall establish such regulations as are necessary to ensure reasonable access to telephone service by persons with impaired hearing."<sup>79</sup> HIA cites the "surely substantial"<sup>80</sup> numbers of handsets sold by retailers such as Radio Shack, Best Buy, and Circuit City, and it argues that the ability to test phones before activating a service contract is crucial.<sup>81</sup>

27. Discussion. We note that no advocates for the hard of hearing community chose to file comments on this proposed rulemaking. Given this, and considering the concerns about the possible burden on retailers, we find that the record at this time does not support a change to the in-store demonstration requirement. However, in the Notice below, we seek further comment on the issue in light of changes to the marketplace and regulatory environment since 2005.

#### **B. The *De Minimis* Exception**

28. Background. When first adopting hearing aid compatibility requirements involving wireless services in 2003, the Commission recognized that such requirements could have a disproportionate impact on small manufacturers or those that sell only a small number of digital wireless handset models in the United States, as well as on service providers that offer only a small number of digital wireless handset models.<sup>82</sup> To resolve this concern, the Commission adopted a *de minimis* exception, which relieves wireless service providers and handset manufacturers that offer two or fewer digital wireless handset models in the United States from the hearing aid compatibility compliance obligations set forth in the *Hearing Aid Compatibility Order*.<sup>83</sup>

(Continued from previous page) \_\_\_\_\_

which is a "far cry" from regulating the stocking, marketing and merchandising choices of retailers with respect to products not recalled from commerce); CompUSA Reply Comments at 2-3.

<sup>74</sup> See Cingular Comments at 2; CompUSA Reply Comments at 2.

<sup>75</sup> T-Mobile Comments at 7.

<sup>76</sup> Radio Shack Comments at 16.

<sup>77</sup> CERC Comments at 7.

<sup>78</sup> HIA Reply Comments at 2.

<sup>79</sup> 47 U.S.C. § 610(a).

<sup>80</sup> HIA Reply Comments at 3. HIA notes that the retailers in question did not provide data on their market share. *Id.*

<sup>81</sup> *Id.*

<sup>82</sup> See *Hearing Aid Compatibility Order*, 18 FCC Rcd at 16781 ¶ 69; see also *Hearing Aid Compatibility Reconsideration Order and Further Notice*, 20 FCC Rcd at 11244 ¶ 51.

<sup>83</sup> 47 C.F.R. §§ 20.19(e)(1)-(2).

29. In the 2005 *Hearing Aid Compatibility Reconsideration Order and Further Notice*, the Commission clarified that the *de minimis* exception applies on a per air interface basis, rather than across a manufacturer's or service provider's entire product line.<sup>84</sup> The Commission also sought comment on whether to narrow the *de minimis* exception so as to exempt from the hearing aid compatibility requirements only those wireless service providers and handset manufacturers that offer one digital wireless handset model per air interface, or whether the *de minimis* exception should be narrowed in some other way.<sup>85</sup> Specifically, the Commission sought comment: on whether the current rule reduces the access of consumers with hearing aids and cochlear implants to wireless devices; on whether any particular modification that would narrow the *de minimis* exception would increase costs to all consumers, including those with and without hearing disabilities, or discourage market entry by manufacturers; and on the number of wireless service providers and manufacturers that would be affected by any such change in the rule, including the impact on small businesses.<sup>86</sup> Only two parties commented.

30. Cingular opposes any change to the *de minimis* rule, noting that the Commission did not cite any examples of problems with the existing exception and Cingular knows of none.<sup>87</sup> Research in Motion also opposes such a change, noting that a one-phone *de minimis* exception would be almost meaningless and would require small and specialty manufacturers to make virtually all of their phones compliant.<sup>88</sup>

31. Discussion. We find that the record does not support any change to the *de minimis* exception at this time. No commenter has challenged the current scope of this exception or otherwise raised concerns about the Commission's justification for such an exception. We note that, in the Notice below, we seek comment on the Joint Consensus Plan, including its proposal to retain the existing *de minimis* exception.<sup>89</sup> In that context, wireless service providers and affected consumers will have another opportunity to raise any arguments for narrowing or otherwise modifying the exception that are not in the current record. Pending our review of any such comments, we take no action at this time.

#### IV. NOTICE OF PROPOSED RULEMAKING

32. In the Notice that we are initiating, we seek comment on recommendations in the *Staff Report* and on the various proposals set forth in the Joint Consensus Plan. We make a number of tentative conclusions based on the broad consensus established by those participating in the development of the Joint Consensus Plan.

33. Specifically, as recommended in the *Staff Report* and the Joint Consensus Plan, we tentatively conclude to adopt new M3- and T3-rated handset deployment benchmarks through 2011, among other things modifying the upcoming February 18, 2008 requirement to provide 50 percent of phone models that comply with an M3 rating. We also tentatively conclude to take the following steps: (1) implement a "product refresh" rule for manufacturers and a new requirement that service providers include in their portfolios of hearing aid-compatible handsets a certain number of models with different levels of functionality, including the capability to operate over different frequency bands; (2) adopt, after a suitable phase-in period, the use of a single version of the ANSI C63.19 standard, ANSI C63.19-2007; (3) adopt new content and timelines for hearing aid compatibility reporting requirements; (4) retain the current *de*

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<sup>84</sup> *Hearing Aid Compatibility Reconsideration Order and Further Notice*, 20 FCC Rcd at 11244 ¶ 53.

<sup>85</sup> *Id.* at 11249 ¶ 66.

<sup>86</sup> *Id.*

<sup>87</sup> Cingular Comments at 4.

<sup>88</sup> Research in Motion Comments at 1-2.

<sup>89</sup> *See infra* ¶ 85.

*minimis* exception for manufacturers and carriers with small product lines and codify that it applies on a per-air interface basis; (5) codify that multi-mode and multi-band handsets must be compliant over each air interface and frequency band over which they operate in order to be counted as compliant; (6) clarify that multi-band and multi-mode phones cannot be counted as compatible in any band or mode if they operate over air interfaces or frequency bands for which technical standards have not been established; (7) extend the hearing aid compatibility rules to cover services offered over any frequency in the 800-950 MHz and 1.6-2.5 GHz bands that employ air interfaces for which technical standards have been established as part of ANSI C63.19, as approved by the Commission; and (8) commence a further review of all issues related to hearing aid compatibility in 2010. In the context of several of these tentative conclusions, we also request comment regarding the appropriate deployment regime for Tier II/III carriers and other service providers that are not Tier I carriers, which generally were not included within the Joint Consensus Plan's framework. We also seek comment on the possibility of staggered handset deployment deadlines, additional reporting/outreach obligations, and other measures not addressed by the Joint Consensus Plan. Finally, following upon the recommendations in the *Staff Report*, the Notice invites comments on new hearing aid compatibility issues implicated by nascent technologies, including VoIP and wireless data connections, and regulatory environments, including "open platform" networks.

34. We request that manufacturers and service providers be as specific as possible regarding the impact of these proposals on their operations, and that any alternative proposals be supported by evidence as to their feasibility and effectiveness. Affected consumers, including those with hearing difficulties, should support any new proposals with explanations of not only the benefits but also the costs to service providers, manufacturers, or other consumers, and why such costs are outweighed by the benefits. The Joint Consensus Plan contains many interrelated provisions, and we note the emphasis that its proponents place on adopting the plan as a whole in order to maintain the balance achieved during negotiations by its various member participants.<sup>90</sup>

35. Discussion of these proposals is divided into six parts: (1) new requirements and deadlines for hearing aid-compatible handsets; (2) adoption of the 2007 version of the ANSI technical standard; (3) reporting, information submissions, and outreach efforts; (4) miscellaneous aspects of the Joint Consensus Plan; (5) emerging wireless technologies using VoIP; and (6) issues regarding open platforms for devices and applications.

#### **A. Requirements and Deadlines for Hearing Aid-Compatible Handset Deployment**

36. We seek comment on a set of new requirements for manufacturers and certain carriers as they deploy hearing aid-compatible handsets in the years to come. The first proposal in the Joint Consensus Plan is to modify several deployment deadlines as set forth in Section 20.19 of the Commission's rules, including the requirement that manufacturers and wireless service providers ensure that, by February 18, 2008, at least 50 percent of their handset models over each air interface offered meet a U3/M3 or better rating for RF interference reduction,<sup>91</sup> as well as the requirements for deployment of handsets that meet a T3 rating for inductive coupling capability. In this context, the plan also proposes new "product refresh" and "multiple tier" requirements in order to ensure people with hearing loss have access to new, advanced devices.

##### **1. Deployment Benchmarks and Deadlines**

37. In this section, we seek comment on tentative conclusions to adopt new hearing aid-compatible handset deployment benchmarks for manufacturers and service providers between 2008 and 2011, consistent with those recommended in the *Staff Report* and proposed as part of the Joint Consensus

<sup>90</sup> See, e.g., Joint Consensus Plan at 5, 15-16.

<sup>91</sup> See 47 C.F.R. § 20.19(c).

Plan. These include proposals (1) to modify requirements currently in effect for February 18, 2008, and establish future requirements to provide handsets that incorporate reduced RF interference in recognition of technology and market obstacles currently faced by manufacturers and service providers, and (2) to provide more options to consumers with severe hearing loss by imposing additional requirements on both service providers and manufacturers to make handsets available that are compatible with hearing aids operating in the telecoil mode. In addition to seeking comment on the recommendations and proposals in the Joint Consensus Plan, we ask commenters to address specifically questions raised in the *Staff Report*, including those concerning appropriate benchmarks and deadlines to apply to service providers other than Tier I carriers, and those concerning whether staggering of deadlines between manufacturers and service providers is appropriate.

38. *M3- and T3-Rated Benchmarks/Deadlines*. Section 20.19(c) and (d) of the Commission's rules contains the current deadlines for deployment of public mobile radio service handset models that meet both the M3 (or higher) and T3 (or higher) ratings for compatibility with hearing aids.

39. The following table summarizes the deadlines applicable to both manufacturers and service providers to deploy handsets that meet an M3 (or higher) rating for reduced radio frequency interference to enable acoustic coupling between the handset and hearing aids:<sup>92</sup>

Manufacturer:

- *By September 16, 2005* – provide at least two hearing aid-compatible models for each air interface offered.
- *By February 18, 2008* – ensure 50% of models offered are hearing aid-compatible for each air interface offered.

Service Provider:

- *By September 16, 2005* –
  - Tier I Carriers: provide at least four digital hearing aid-compatible models per air interface or 25% of digital wireless models offered nationwide for each air interface offered.
  - Other Service Providers: provide at least two hearing aid-compatible models for each air interface offered.
- *By September 16, 2006* –
  - Tier I Carriers: provide at least five hearing aid-compatible digital models per air interface or 25% of digital wireless models offered nationwide for each air interface offered.
- *By February 18, 2008* –
  - All Service Providers: ensure 50% of models offered are hearing aid-compatible for each air interface offered (based on digital wireless models offered nationwide).

40. The following table summarizes the rule's deployment deadlines by which both manufacturers and service providers must offer digital wireless T3-rated (or higher) handset models that enable inductive coupling between the handset and hearing aids:<sup>93</sup>

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<sup>92</sup> 47 C.F.R. § 20.19(c).

<sup>93</sup> *Id.* § 20.19(d).

Manufacturer:

- *By September 18, 2006* – provide at least two hearing aid-compatible models for each air interface offered.

Service Provider:

- *By September 18, 2006* – provide at least two hearing aid-compatible models for each air interface offered.

41. We seek comment on modifying these provisions consistent with the proposals in the Joint Consensus Plan, both by adopting reduced and alternative benchmarks for deploying handsets compatible with hearing aids operating in acoustic coupling (also known as microphone) mode and by increasing future benchmarks for compatibility with hearing aids operating in inductive coupling (also known as telecoil) mode.

42. With respect to acoustic coupling compatibility, in recognition of marketplace and technical realities we seek comment on a tentative conclusion to adopt a lower threshold for equipment manufacturers to deploy M3-rated (or higher) handsets. In place of the current requirement that 50 percent of handset models per air interface meet hearing aid compatibility standards by February 18, 2008, we propose that manufacturers be obligated, for each air interface for which they offer handsets, to meet the requirement, as proposed in the Joint Consensus Plan, of “33% of manufacturers’ non-*de minimis* portfolio models offered to service providers in the United States.”<sup>94</sup> Thus, for example, if a manufacturer produces a total of 12 models capable of operating over the GSM air interface (regardless of whether these are single-mode or multi-mode models), at least four of those models would have to meet an M3 or higher rating.<sup>95</sup>

43. We note that technological issues make it difficult to produce a wide variety of Global System for Mobile Communications (GSM) handsets that both meet the M3 standard for reduced RF interference for acoustic coupling and include certain popular features, and we seek to promulgate rules that are as technology-impartial as possible.<sup>96</sup> We tentatively conclude that, in context with the other proposals in the Joint Consensus Plan, these reduced thresholds strike an appropriate balance between maintaining technological neutrality and ensuring availability of hearing aid-compatible handsets to affected consumers. Do differences, in terms of the nature of the signals emitted and burdens of the formulae used to calculate compliance ratings under the ANSI technical standard, support our tentative conclusion and justify this lower benchmark? Under the rule change proposed here, would either the GSM or Code Division Multiple Access (CDMA) air interface have an advantage over the other in terms of rule compliance? Would any impacts to hard of hearing consumers due to the production of fewer numbers of compatible handset models be offset by the requirement that manufacturers regularly include new compatible models in their product lines, as discussed below?

44. For Tier I carriers, we seek comment on a tentative conclusion to adopt an alternative schedule to the 50 percent M3-rated (or higher) February 18, 2008 deployment deadline. These carriers

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<sup>94</sup> Joint Consensus Plan at 8.

<sup>95</sup> *See Id.* A multi-mode handset could not be counted as compatible over any air interface unless it is compatible in all air interfaces over which it operates. *See infra* ¶ 84.

<sup>96</sup> ATIS has provided the Commission a detailed report describing a variety of technological constraints impacting the wireless industry’s further progress towards compatibility with hearing aids, particularly with respect to GSM. *See Staff Report* at ¶ 32. *See also* Joint Consensus Plan at 8 (“This high percentage is currently not possible in a technology-neutral manner because commercially popular handset form factors in certain air interfaces have extreme difficulty achieving [hearing aid compatibility] compliance.”).

would have the choice of complying with either the current rule or a new schedule based on total numbers of compliant handset models.<sup>97</sup> This schedule would create obligations for service providers to provide an increasing number of handset models per air interface over which they offer service by future dates as follows:

February 18, 2008: eight M3-rated (or higher) handset models.

February 18, 2009: nine M3-rated (or higher) handset models.

February 18, 2010: ten M3-rated (or higher) handset models.<sup>98</sup>

Such a schedule could provide needed flexibility for Tier I carriers to deploy new and additional models over time, particularly in the context of reduced production benchmarks for manufacturers. We also note that, while this proposal may result in fewer numbers of compatible handset models being offered by certain service providers to hard of hearing consumers, these consumers would, under another proposal discussed below, be assured a large number of compliant handsets at multiple levels of functionality, or tiers.<sup>99</sup> We seek comment on our tentative conclusion to modify the rule as proposed.

45. Along with these proposals to modify the deployment requirements regarding reduced RF interference for acoustic coupling compatibility, we also seek comment on a tentative conclusion to increase the benchmarks for manufacturers' and Tier I carriers' deployment of handsets meeting a T3 (or higher) rating for inductive coupling capability. Because customers' options for handsets that enable inductive coupling with telecoils have been more limited than for acoustic coupling compatibility,<sup>100</sup> additional requirements of this nature could benefit some of the most disadvantaged wireless users in the deaf and hard of hearing community, who are more likely to rely on telecoil-equipped hearing aids.<sup>101</sup>

46. As discussed above, under current rules manufacturers are not required to provide additional T3-rated handsets once they have met the September 18, 2006 deadline for offering two compliant handset models per air interface. Under our proposed rule changes, we would now require manufacturers to meet the greater of two measures for each air interface for which they offer handsets in 2009 through 2011, as follows:

- (1) a minimum of two T3-rated (or higher) models for each air interface for which the manufacturer offers four or more handset models to service providers; or
- (2) at least 20% / 25% / 33% of models that the manufacturer offers over each air interface rated T3 (or higher) by February 18, 2009 / 2010 / 2011 respectively.

As proposed, these percentage calculations would be rounded down to the nearest whole number in determining the minimum number of handsets to be produced. In addition, we note that each non-*de minimis* manufacturer would still be required to produce at least two or more T3-rated (or higher)

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<sup>97</sup> See Joint Consensus Plan at 6-7.

<sup>98</sup> The Joint Consensus Plan also states that each Tier I carrier choosing the alternative schedule shall "[e]nsure that at least ten (10) of its handset models for each air interface comply with § 20.19(b)(1) by February 18, 2011." *Id.* at C-3. Consistent with the apparent intent of the Joint Consensus Plan, we intend that the February 2010 deployment obligation would remain in effect until such time as it may be changed by future Commission rulemaking action.

<sup>99</sup> See *infra* ¶¶ 56-57.

<sup>100</sup> See *Staff Report* at ¶ 21.

<sup>101</sup> The number of individuals using telecoil-equipped hearing aids is increasing and includes some with the most profound hearing loss. See, e.g., *Staff Report* at ¶ 35 n.91.

handsets per air interface for which it offers handsets.<sup>102</sup>

47. Similarly, service providers are currently not required to deploy additional T3-rated (or higher) handset models once they have met the September 18, 2006 deadline for offering two compliant handset models per air interface. Under our proposed rule changes, we would now require Tier I carriers to meet the lesser of the following requirements for each air interface over which they offer service:

- (1) February 18, 2008: 33% of digital wireless handset models are T3-rated (or higher); or
- (2) a schedule as follows:

February 18, 2008: three T3-rated (or higher) handsets.

February 18, 2009: five T3-rated (or higher) handsets.

February 18, 2010: seven T3-rated (or higher) handsets.

February 18, 2011: ten T3-rated (or higher) handsets.

48. We tentatively conclude that these increased requirements for deployment of T3-rated (or higher) handsets are necessary and appropriate for both manufacturers and Tier I carriers. These additional benchmarks would provide valuable benefits to affected consumers with profound hearing loss. Because customers' options for handsets that enable inductive coupling with telecoils have been more limited than for those that reduce RF interference with acoustic coupling operation,<sup>103</sup> and advocacy groups representing people with hearing loss have indicated that increased numbers of inductive coupling-capable handsets would assist a greater number of people with hearing loss, especially those with profound hearing loss,<sup>104</sup> we tentatively conclude that manufacturers should be striving to produce, and service providers should be striving to deploy, more handset models of this type. We understand the Joint Consensus Plan to reflect the consensus of the submitting parties that the targets set forth therein are technologically and economically feasible. Moreover, we note that the alternative benchmarks for Tier I carriers give those who offer a large number of handset models over a given air interface the flexibility to satisfy their obligations by offering a substantial number of compatible handset models. We seek comment on our tentative conclusion.

49. We also seek comment on any additional deadlines or deployment milestones that may be appropriate to adopt at this time. Although we seek comment below on conducting another rulemaking in 2010, as recommended in the *Staff Report*,<sup>105</sup> we will also consider any appropriate deployment benchmarks that commenters might support. For example, should we consider adopting any future M4 or T4 handset compliance requirements? What technological and market constraints should be considered when evaluating any additional future hearing aid compatibility deployments?

50. *Service Providers Other than Tier I Carriers.* As explained in the *Staff Report*, the Joint Consensus Plan is silent with respect to service providers that are not Tier I carriers.<sup>106</sup> Accordingly, we seek comment generally on the appropriate deployment regime for these wireless service providers. As a general matter, in order to make the benefits of compatible handsets available to all consumers who need them, all service providers should be expected to meet the same benchmarks unless they cannot

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<sup>102</sup> See Joint Consensus Plan at 9 n.14.

<sup>103</sup> See *Staff Report* at ¶ 21.

<sup>104</sup> See *id.* at ¶ 35 n.91.

<sup>105</sup> See *Staff Report* at ¶ 101; see also Joint Consensus Plan at 12.

<sup>106</sup> The Joint Consensus Plan only contains deployment deadline rule changes for Tier I carriers.

reasonably do so. At the same time, we note that in the past numerous Tier II and Tier III carriers have requested, and many have been granted, extension of compatible handset deployment deadlines because they were unable timely to obtain compliant handsets in sufficient quantities from manufacturers.<sup>107</sup> We therefore ask commenters to address whether there is anything inherent in the characteristics of Tier II and Tier III carriers, resellers, and mobile virtual network operators (MVNOs), or other categories of smaller service providers, that would prevent them from meeting either the RF interference reduction or inductive coupling-capable handset numbers and percentages set out above for Tier I carriers. Commenters should discuss with specificity any alternative requirements or schedules that they propose for these types of service providers, and the reasons for those alternatives.

51. *Staggered Deadlines for Deployment.* We also specifically seek comment on whether, with respect to offering compliant handsets, we should require different, staggered deployment deadlines for manufacturers and service providers. Should manufacturers be required to offer compliant handsets at some time prior to all service providers, or to some subset of smaller providers? We note that many Tier II and Tier III carriers have requested waivers of hearing aid compatibility deadlines, complaining among other things that manufacturers have not made compliant handsets available sufficiently in advance of the deadline so that these service providers could, in turn, make them available to consumers.<sup>108</sup> Instituting a short interval between the manufacturers' and some or all service providers' deadlines might be appropriate to address the circumstances that have engendered these waiver requests. Because of market realities, Tier II and Tier III carriers may have more difficulty than Tier I carriers in obtaining handsets. We note that the Joint Consensus Plan does not request any staggered deadlines for Tier I carriers. We ask commenters to address specifically whether staggering of deadlines is appropriate in the context of our proposed future hearing aid compatibility requirements, and if so, for how long and for what subset of service providers.

## 2. New Requirements for Handset Deployment

52. In the 2003 *Hearing Aid Compatibility Order*, the Commission urged service providers and manufacturers to make hearing aid-compatible phones available in lower-priced models as well as in models that include higher-end features:

[I]n meeting the two- and three-year requirements [in 2005 and 2006], we encourage digital wireless phone manufacturers and service providers to provide at least one compliant phone that is a lower-priced model and one model that has higher-end features. For purposes of meeting the 50 percent level [in 2008], manufacturers and carriers should continue to offer one lower-priced model and one model with higher-end features, and the features and prices of any additional compliant phones are at the discretion of the manufacturer or carrier. These steps should help to ensure that consumers have a variety of technology and feature choices. We also expect that these digital wireless phones will be offered in conjunction with attractive service plans and be as equivalent to other non-hearing aid-compatible phones as possible. These measures will ensure that individuals with hearing disabilities will enjoy many of the same choices in wireless telecommunications options that are available to individuals without hearing

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<sup>107</sup> See Section 68.4 (a) of the Commission's Rules Governing Hearing Aid-Compatible Telephones, Petitions for Waiver of Section 20.19 of the Commission's Rules, WT Docket No. 01-309, *Memorandum Opinion and Order*, 22 FCC Rcd 7171 (2007) (resolving 19 requests for waiver of the September 18, 2005 acoustic coupling compatibility deployment deadline).

<sup>108</sup> *Id.*

disabilities.<sup>109</sup>

53. We now propose, in accord with the *Staff Report* and the Joint Consensus Plan,<sup>110</sup> additional specific measures to ensure that such a range of compatible handset models will be available so that consumers will have access to hearing aid-compatible handsets with the newest features, as well as more economical models. We expect that these measures will increase the selection of popular and innovative handsets available to consumers with hearing loss. Moreover, as standards are promulgated and equipment is developed for new frequency bands, we anticipate that these rules will result in hearing aid-compatible phones being made available across the multiple frequency bands being used for a particular air interface.

54. We tentatively conclude that our rules should require equipment manufacturers to meet a “product refresh” requirement, as recommended in the *Staff Report* and described in the Joint Consensus Plan.<sup>111</sup> This proposal would mandate that manufacturers meet RF interference reduction thresholds for acoustic coupling compatibility in some of their new models each year, enough so that, for manufacturers offering four or more handsets using a given air interface, half of the minimum required number of M3-rated or higher handset models would be new models introduced during the calendar year.<sup>112</sup> To make this calculation, the number of new compliant models to be produced would be 50 percent of the total required number of compliant models, rounded up to the nearest whole number.<sup>113</sup> For manufacturers that produce three total M3-rated models per air interface, at least one new M3-rated (or higher) model shall be introduced every other calendar year.<sup>114</sup> If a manufacturer is not introducing a new model in a calendar year, then under the proposed rule it would not be required to refresh its list of compliant handsets.<sup>115</sup>

55. Notwithstanding our tentative conclusion, we seek comment on whether this requirement should be modified in any way. For example, are there any modifications that would better promote hard of hearing individuals’ access to new handset models without causing undue costs to other parties? Would the proposed “product refresh” requirement sufficiently ensure that, over time, compatible phones become available across all frequency bands as standards are promulgated and equipment is rolled out? We also solicit comment on whether there are any possible less burdensome or intrusive approaches or incentives that would enable the deaf and hard of hearing community to select fresh models on a regular basis. For any proposal, we ask commenters to address the disadvantages of deviating from the standard proposed under the Joint Consensus Plan. Finally, we seek comment on any implementation issues, such as reporting requirements that may be necessary with regard to these obligations,<sup>116</sup> and any enforcement issues.

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<sup>109</sup> See *Hearing Aid Compatibility Order*, 18 FCC Rcd at 16781 ¶ 70.

<sup>110</sup> See Joint Consensus Plan at 9-10, 12. As HLAA noted in its comments, the Apple iPhone has been rolled out, in part, on AT&T’s EDGE network but is not yet hearing aid-compatible, and Apple has not been involved in any discussions regarding hearing aid compatibility. See *Staff Report* at ¶ 82. We expect these proposals will increase the selection of popular and innovative handsets such as the iPhone available to consumers with hearing loss. We note that, to our knowledge, Apple currently manufactures fewer than three handset models, and as such, it is not required under Section 20.19(e) of our hearing aid compatibility rules to offer hearing aid-compatible phones.

<sup>111</sup> See *Staff Report* at ¶ 40; Joint Consensus Plan at 9-10.

<sup>112</sup> See *id.* at Attachment C.

<sup>113</sup> *Id.*

<sup>114</sup> *Id.*

<sup>115</sup> See *id.*; Joint Consensus Plan at 10.

<sup>116</sup> See *infra* ¶¶ 65-71.

56. In addition to a “product refresh” rule for manufacturers, we tentatively conclude that our hearing aid compatibility rules should require Tier I carriers to offer to consumers hearing aid-compatible handsets with different levels of functionality. As described in the *Staff Report*, a proposed requirement set forth in the Joint Consensus Plan would obligate Tier I carriers to offer handset models from “multiple tiers,” and include a concomitant requirement that these providers’ reports “include information on the carriers’ implementation of ‘tiering.’”<sup>117</sup> The Joint Consensus Plan further explains: “To provide the necessary flexibility and to address the difference among product lines offered by different carriers and manufacturers, the demarcation of tiers should be left to the industry.”<sup>118</sup> In the context of the language in the Joint Consensus Plan stating carriers will self-define their tiers, we interpret the term “tiers” to refer to levels of functionality.<sup>119</sup> We further intend functionality to include the extent to which a handset model has the capability to operate over multiple frequency bands for which hearing aid compatibility standards have been established.

57. We seek comment on a tentative conclusion to require Tier I carriers to provide access to handsets with different levels of functionality. If commenters support this tentative conclusion, we ask them to specifically address how such an obligation might be effectively implemented and enforced in our rules. For instance, is there a need to define the obligation more precisely so that hard of hearing consumers have greater assurances that their carrier is providing access to feature-rich, as well as more economical, handsets, and so that service providers can better understand what the rule requires of them? Should we require service providers, as part of their reports and/or in store displays, to explain their “tiering” methodology so that it is clear to the Commission and public how these groupings and categories of compliant handsets break down by function and frequency band? Should service providers other than Tier I carriers be required to meet such an obligation? We welcome any comments on whether such modifications would provide improved benefits to consumers without unreasonably constraining service providers’ flexibility, or whether we should adopt the model rule as is given the development of and consensus on such an obligation in the Joint Consensus Plan. Finally, commenters should also consider how any such tiering requirement(s) should be modified to the extent we modify any of the proposed new deployment deadlines that we tentatively conclude to adopt above.

#### **B. 2007 ANSI C63.19 Technical Standard**

58. We seek comment on changing the current hearing aid compatibility technical standard codified in Section 20.19(b) of the Commission’s rules.<sup>120</sup> In the 2003 *Hearing Aid Compatibility Order*, the Commission adopted the performance levels in the 2001 version of the ANSI C63.19 technical standard as the basis for ensuring hearing aid compatibility of digital wireless handsets.<sup>121</sup> In finding that the technical standard in Section 20.19(b) met the “established” requirement set forth in the Hearing Aid Compatibility Act,<sup>122</sup> the Commission analyzed and relied on numerous submissions supporting ANSI C63.19 as an established technical standard.<sup>123</sup> The Commission determined that the standard presents a

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<sup>117</sup> Joint Consensus Plan at 12.

<sup>118</sup> *Id.*

<sup>119</sup> Moreover, to avoid confusion with the tiers defining carrier size, we believe a different term such as “levels of functionality” may be preferable.

<sup>120</sup> 47 C.F.R. § 20.19(b).

<sup>121</sup> See *Hearing Aid Compatibility Order*, 18 FCC Rcd at 16779 ¶ 63.

<sup>122</sup> 47 U.S.C. § 610(b)(1)(B) (requiring all telephones manufactured in the U.S. to “meet established technical standards for hearing aid compatibility”).

<sup>123</sup> See *Hearing Aid Compatibility Order*, 18 FCC Rcd at 16770-71 ¶ 43.

workable approach to measuring levels of interference that digital wireless handsets could cause to hearing aids, as well as for measuring the interference immunity of hearing aids.<sup>124</sup> The Commission further ruled that codification of ANSI C63.19 served the public interest because the manufacture of digital wireless handsets comporting with this standard would ensure that “a greater number of hearing aid and cochlear implant users will be able to find digital wireless phones that will work for them.”<sup>125</sup>

59. To ensure that the standard codified in the rules would remain viable, the Commission delegated to the Chief of WTB, in coordination with the Chief of the Office of Engineering and Technology (OET), the authority to approve future versions of the standard that do not raise major compliance issues. Where major changes to the standard are made that could affect compliance, the Commission stated that it would initiate an appropriate rulemaking proceeding to consider adoption of updated versions.<sup>126</sup> The Commission also encouraged ANSI to work with the relevant stakeholders to review the standard periodically to determine whether improvements to the standard are warranted.<sup>127</sup> As a result, acting on delegated authority in 2005, OET clarified that applicants for certification could rely on either the 2001 or a draft 2005 update of the ANSI C63.19 standard.<sup>128</sup> In addition, in 2006, WTB and OET released a public notice on delegated authority stating that applications for certification of equipment could be tested and rated under a 2006 revised standard (ANSI C63.19-2006) for wireless phone hearing aid compatibility.<sup>129</sup> WTB and OET also explained that applicants for certification may rely on only one of the three versions (2001, 2005, or 2006) of the ANSI C63.19 standard.<sup>130</sup>

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<sup>124</sup> *See id.* at 16776 ¶ 55.

<sup>125</sup> *Id.* at 16777 ¶ 57. ANSI elected to develop the standard as one that measures performance, rather than one that would establish a firm build-to requirement. *See id.* at 16779 ¶ 63. To use a digital wireless phone with a hearing aid or cochlear implant in acoustic coupling mode, RF interference and other electromagnetic interference (EMI) from the wireless phone must be controlled. Based on recommended audio signal-to-interference ratios and other assumptions about wireless phones' performance, ANSI C63.19 specifies ratings for digital wireless phones, M1 through M4 (originally U1 through U4), 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 will not interfere with a particular hearing aid, the immunity rating of the hearing aid is added to the emissions rating of the wireless phone. A sum of 4 would indicate that the wireless phone is usable; a sum of 5 would indicate that the wireless phone would provide normal use; and a sum of 6 or greater would indicate that the wireless phone would provide excellent performance with that hearing aid.

<sup>126</sup> *See id.* at 16779 ¶ 63.

<sup>127</sup> *See id.*

<sup>128</sup> ANSI had released a draft version of the hearing aid compatibility standard, ANSI C63.19-2005. *See* Public Notice, “OET Clarifies Use of Revised Wireless Phone Hearing Aid Compatibility Standard Measurement Procedures and Rating Nomenclature,” 20 FCC Rcd 8188 (OET 2005)

<sup>129</sup> *See generally* 2006 ANSI Standard Public Notice. In 2006, ANSI had adopted a revised version 3.12 of standard C63.19. This revision, among other things, redesignated the U3 rating as M3, redesignated the U3T rating as T3, revised the testing standard for meeting an M3 rating for phones operating below 960 MHz, and made some changes in GSM testing standards in other frequency bands. *See* American National Standard for Methods of Measurement of Compatibility between Wireless Communications Devices and Hearing Aids, ANSI C63.19-2006, at 1, 52-53, 65-66; *see also supra* note 125.

<sup>130</sup> 2006 ANSI Standard Public Notice, 21 FCC Rcd at 6384-85.

60. We seek comment on a tentative conclusion to change this current practice permitting use of multiple versions of ANSI C63.19 and, instead, codify a single 2007 version of the testing standard.<sup>131</sup> ANSI C63.19-2007, an updated version of the technical standard for determining hearing aid compatibility, has been recently approved by the Accredited Standards Committee on Electromagnetic Compatibility, C63™ and adopted by ANSI.<sup>132</sup> The differences between the previous version of the standard, ANSI C63.19-2006, and the ANSI C63.19-2007 version include:

- The distance between the cell phone under measurement and the measuring probe to be used when establishing the “M” rating has been increased from 1.0 cm to 1.5 cm.
- The (signal+noise)-to-noise ratio to be used in determining the “T” rating has been increased. This will result in lower noise relative to the audible signal and improved performance of the wireless device.
- The “T” rating for T-Coil capable wireless devices has been separated from the “M” rating. The new standard permits a “T” rating that is greater than the “M” rating for the same wireless device.
- The axial T-coil coupling field intensity value was changed from  $\geq -13$  dB (A/m) at 1 kHz to  $\geq -18$  dB (A/m) at 1 kHz. The standard now has the same T-coil field intensity value for both the axial and radial test positions.<sup>133</sup>

Under our proposal, this new 2007 standard would replace the 2001, 2005 draft, and 2006 versions of the technical standard. As stated above, ANSI filed a petition this year requesting that the Commission adopt this 2007 revision of the ANSI C63.19 technical standard as the permanent standard.<sup>134</sup> ANSI states in its petition that further improvements have been made to the technical standard to reflect changes in technology, and efficiencies and improvements in testing procedures.<sup>135</sup> Because the standard that has been adopted by ANSI is stricter in some respects than prior versions,<sup>136</sup> and is the result of broad participation from diverse groups,<sup>137</sup> we propose that the standard be codified in our rules in order to better promote the development of hearing aid-compatible handsets that hearing-impaired consumers can readily use. Commenters should address whether they support such a rule change, and if not, identify an acceptable alternative to our tentative conclusion.<sup>138</sup>

61. We also seek comment on a tentative conclusion to phase in the 2007 standard. Under this proposal, we would permit both the 2006 and 2007 versions of the standard to be used for new RF interference and inductive coupling hearing aid compatibility certifications through 2009.<sup>139</sup> A newly-

<sup>131</sup> We would retain the current practice of permitting the Chief of WTB, in coordination with the Chief of OET, on delegated authority, to approve use of future versions of the standard, including multiple alternative versions, to the extent that the changes do not raise major compliance issues.

<sup>132</sup> See ANSI Petition at 1-2.

<sup>133</sup> See American National Standard for Methods of Measurement of Compatibility between Wireless Communications Devices and Hearing Aids, ANSI C63.19-2007, at 21-22, 56-57 (*ANSI C63.19-2007 Standard*).

<sup>134</sup> See *supra* ¶ 60.

<sup>135</sup> ANSI Petition at 2.

<sup>136</sup> Joint Consensus Plan at 13.

<sup>137</sup> ANSI Petition at 2.

<sup>138</sup> Some of the commenters in the proceeding on WTB’s *Staff Report* supported the ANSI petition. See *Staff Report* at ¶ 9 n.34.

<sup>139</sup> Joint Consensus Plan at 13.

certified handset would therefore have to meet, at minimum, an M3 or T3 rating as set forth in either the 2006 or 2007 revision of the ANSI C63.19 standard to be considered compatible, while grants of equipment authorization previously issued under other versions of the standard would remain valid for hearing aid compatibility purposes.<sup>140</sup> Then, beginning on January 1, 2010, we would only permit use of the 2007 version of the standard for obtaining new grants of equipment authorization, while continuing to recognize the validity of existing grants under previous versions of the standard.<sup>141</sup>

62. We seek comment on whether this two step phase-in period appropriately balances the interests in bringing state-of-the-art compatible handsets to hard of hearing consumers and in avoiding unreasonable burdens on manufacturers and service providers. Are there alternative implementations of the 2007 standard that would better serve these goals? For example, would there be any advantage in retaining the 2001 and 2005 versions as permitted standards for new M3 and/or T3 handset certifications during the transition period? Our understanding is that manufacturers generally no longer use these standards, but we seek comment on whether we should deviate from this proposal if there is any benefit in terms of flexibility without offsetting costs to affected consumers. We also seek comment on whether a shorter passage of time for the transition would afford a greater benefit to the deaf and hard of hearing community without unreasonably burdening manufacturers and service providers, or whether the industry needs a longer transition period. In addition, we seek comment on whether the grandfathering provisions for previously-certified handsets strike an appropriate balance, or whether at some point we should require handsets to be recertified under the 2007 standard in order to be considered compatible. Unless commenting parties support a different process, we are prepared to grant the ANSI Petition and adopt the phase-in process as outlined in the Joint Consensus Plan.<sup>142</sup> Commenters should focus on any details that may need to be resolved in order to make such a transition smooth and transparent to users of hearing aid-compatible handsets.

### C. Reporting Obligations, Public Information, and Outreach

63. In this section, we seek comment on proposed requirements relating to manufacturers' and service providers' filing of hearing aid compatibility reports with the Commission, as well as other public information and outreach measures.

64. As discussed below, since 2003 manufacturers and service providers have filed regular reports with the Commission detailing their hearing aid compatibility efforts. In order to address shortcomings that have been observed in the existing reports and to render future reports as transparent and useful as possible for consumers, industry, and Commission staff responsible for helping to ensure that the Commission's hearing aid compatibility requirements are fully implemented, we tentatively conclude to adopt new content requirements, as recommended in the *Staff Report* and proposed in the Joint Consensus Plan. We also seek comment on additional ways to improve the reports. In addition, we request comment on questions relating to the timing of future reports. Finally, we seek comment on other potential measures to improve the availability of information to the public, both through the Commission and directly from manufacturers and service providers.

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<sup>140</sup> However, under the Joint Consensus Plan, a manufacturer that is required to meet a T3 rating for 20 percent of its models under proposed Section 20.19(d)(1)(i) would only be able to count toward this requirement one model manufactured after January 1, 2009, and certified under a pre-2007 standard. See Appendix B.

<sup>141</sup> Joint Consensus Plan at 13.

<sup>142</sup> *Id.*

## 1. Reporting

65. Background. In the *Hearing Aid Compatibility Order*, the Commission established a schedule requiring manufacturers and wireless service providers to report on compliance efforts every six months from 2004 through 2006,<sup>143</sup> and then annually in 2007 and 2008.<sup>144</sup> Thus, manufacturers and wireless service providers filed their most recent compliance reports on November 17, 2006.<sup>145</sup> These reports include a variety of required information describing manufacturers' and service providers' efforts aimed at complying with Commission requirements for hearing aid compatibility. Specifically, the Commission requires that these reports include the following content:

- (1) digital wireless phones tested;
- (2) laboratory used;
- (3) test results for each phone tested;
- (4) identification of compliant phone models and ratings according to ANSI C63.19;
- (5) report on the status of product labeling;
- (6) report on outreach efforts;
- (7) information related to retail availability of compliant phones;
- (8) information related to incorporating hearing aid compatibility features into newer models of digital wireless phones;
- (9) any activities related to ANSI C63.19 or other standards work intended to promote compliance with the *Hearing Aid Compatibility Order*;
- (10) total numbers of compliant and non-compliant phone models offered as of the time of the report; and
- (11) any ongoing efforts for interoperability testing with hearing aid devices.<sup>146</sup>

66. As the Commission has stated, these reports are intended to serve dual purposes: (1) assisting the Commission in monitoring handset deployment progress, and (2) providing valuable information to the public concerning the technical testing and commercial availability of hearing aid-compatible handsets.<sup>147</sup> The Commission also stated that the reports would assist its efforts to verify compliance with,<sup>148</sup> and undertake an analysis of,<sup>149</sup> the 50 percent handset deployment benchmarks in 2008 discussed

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<sup>143</sup> Reports were due on May 17, 2004, November 17, 2004, May 17, 2005, November 17, 2005, May 17, 2006, and November 17, 2006. See *Hearing Aid Compatibility Order*, 18 FCC Rcd at 16787 ¶ 89; see also Wireless Telecommunications Bureau Announces Hearing Aid Compatibility Reporting Dates for Wireless Carriers and Manufacturers, WT Docket No. 01-309, *Public Notice*, 19 FCC Rcd 4097 (2004).

<sup>144</sup> These reports are due on November 19, 2007, and November 17, 2008. *Id.* The Commission permitted digital wireless handset manufacturers and service providers to submit joint reports in order to minimize the reporting burden. See *Hearing Aid Compatibility Order*, 18 FCC Rcd at 16787 ¶ 89.

<sup>145</sup> See *Staff Report* at ¶ 19.

<sup>146</sup> *Hearing Aid Compatibility Order*, 18 FCC Rcd at 16787 ¶ 89. The Commission also asked digital wireless service providers to highlight in these reports any differences in handset offerings among regions of their service areas. See *id.*

<sup>147</sup> See *id.*

<sup>148</sup> See *id.*

above.<sup>150</sup> Accordingly, we closely reviewed the information in the reports to monitor handset deployment progress, with the goal of proactively resolving any potential for delay. Commission staff has also analyzed the data contained in the reports to comply with Congress' requirement that the Commission periodically review and scrutinize its hearing aid compatibility regulations.<sup>151</sup> Finally, these reports can be a very important source of information, both for consumers, particularly those with hearing disabilities, and for service providers seeking information regarding the hearing aid compatibility of manufacturers' products.<sup>152</sup>

67. Discussion. Given the importance of these objectives, we tentatively conclude not only to continue requiring service providers and manufacturers to report regularly on the availability of hearing aid-compatible products, but to enhance and improve the content of the reports that are filed. As reported in the *Staff Report*, there is evidence in the record that some of the information in the existing compliance reports may not be as complete or as helpful as possible for consumers, wireless service providers, or the Commission.<sup>153</sup> Furthermore, WTB staff encountered difficulties when verifying the ratings for certain handset models identified in compliance reports, because many of the compliance reports referenced the handset manufacturer and model number but did not include the associated FCC ID.<sup>154</sup> In order to address these shortcomings, the Joint Consensus Plan includes proposed requirements that will render the reports more helpful to consumers and others by providing them with better information concerning the commercial availability of compliant handsets. Specifically, the Joint Consensus Plan recommends that reports include:<sup>155</sup>

Manufacturers:

- (1) digital wireless phones tested;
- (2) compliant phone models using the FCC ID number and ratings according to C63.19;
- (3) status of product labeling;
- (4) outreach efforts;
- (5) total numbers of compliant phone models offered as of the time of the report; and
- (6) information pertaining to product refresh.

Service providers:

- (1) compliant phone models using the FCC ID number and ratings according to C63.19;
- (2) status of product labeling;
- (3) outreach efforts;
- (4) information related to the retail availability of compliant phones;
- (5) total numbers of compliant and non-compliant phone models offered as of the time of the

(Continued from previous page) \_\_\_\_\_

<sup>149</sup> See *id.* at 16783 ¶ 74.

<sup>150</sup> See *supra* ¶ 39.

<sup>151</sup> See 47 U.S.C. § 610(f).

<sup>152</sup> See *Staff Report* at ¶¶ 52-53.

<sup>153</sup> See, e.g., *id.* at ¶ 49 (noting problems associating the manufacturer model number with the FCC ID).

<sup>154</sup> *Id.*

<sup>155</sup> Joint Consensus Plan at 11 nn.17-18.

report; and

(6) the “tiers” into which the compliant phones fall.

68. We propose to adopt these reporting criteria and ask commenters to address whether they capture the appropriate information and level of detail. In particular, to clarify the information collection recommended in the Joint Consensus Plan, we propose to require both manufacturers and service providers to provide the model number and FCC ID directly associated with each model that they are reporting as compatible, together with the “M” and “T” rating that each such model has been certified as achieving under the ANSI C63.19 standard. We would accept the manufacturer’s determination of whether a device is a distinct model consistent with the manufacturer’s marketing practices, so long as models that have no distinguishing variations of form, features, or user capabilities, or that only differentiate units sold to a particular carrier, are not separately counted as distinct models to customers. We further propose to require that reports include the air interface(s) and frequency band(s) over which each compatible model operates. We seek comment on these proposed additional requirements. In addition, should we vary the information sought depending on the type of service provider (*e.g.*, Tier I carrier vs. other service provider)?

69. We also seek comment on additional ways to improve the quality and usefulness of the reports, including whether we should require additional information beyond that proposed in the Joint Consensus Plan. Would a standardized form, template, or format facilitate accurate and complete reporting? Unless commenters support another process, we propose to authorize Commission staff to develop a standardized reporting format for collecting information. Moreover, if such a format could be created electronically, would this enable the Commission more effectively to monitor the overall state of industry compliance as compared to other alternatives? Would it be beneficial to integrate such a new format with the Commission’s electronic database of equipment authorizations such that they cross-reference and update one another?

70. In addition, we seek comment regarding the schedule under which we should require future reports. Under the proposal contained in the Joint Consensus Plan, the Commission would adopt a staggered schedule whereby manufacturers would be required to provide an annual status report to the Commission beginning November 30, 2007, Tier I carriers would be required to provide an annual status report to the Commission six months later beginning May 30, 2008, and Tier II and III carriers would be required to provide an annual status report beginning May 30, 2009.<sup>156</sup> These reporting requirements would continue annually thereafter through the November report in 2012.<sup>157</sup> We seek comment on a tentative conclusion to adopt substantially this schedule, but with certain refinements. First, given the timing of this rulemaking proceeding, we expect that manufacturers and service providers will be required to comply with current rules for November 2007 reporting.<sup>158</sup> To the extent we maintain the current November 17, 2007 reporting deadline during the instant rulemaking, commenters should consider how the remaining schedule may need to be modified. For example, should we begin the staggered reporting process with manufacturers reporting again in May 2008 and Tier I carriers reporting in November 2008?<sup>159</sup> Commenters should also evaluate the advantages and disadvantages of requiring reports more often (*e.g.*, every three or six months) and relate the burdens imposed versus the corresponding benefits.

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<sup>156</sup> *Id.* at 11.

<sup>157</sup> *Id.*

<sup>158</sup> *See supra* note 144.

<sup>159</sup> This would maintain a 12 month period between service provider reports, but would require manufacturers to file one set of reports 6 months apart.

71. In addition, we question the Joint Consensus Plan proposal to adopt a delayed reporting requirement for Tier II and III carriers whereby their next reports would not be required until a year after the Tier I carriers' reports. In light of the recommendations in the *Staff Report* and our objectives described above, especially for consumers who receive service from such providers, we seek comment on whether it serves the public interest to delay their next reports for a period of 18 months to two years from their reports that will be submitted in November 2007, or whether they should instead be held to the same schedule as Tier I carriers in order to provide a steady source of information to consumers and to the Commission. Moreover, given that Tier II and III carriers have already been filing reports regularly, we seek comment on the extent of the burdens that would be avoided by postponing their first reports as proposed under the Joint Consensus Plan, balanced against the extent of information that would be lost by introducing a gap of 18 months or more in their reporting. Commenters should also address whether the reporting deadlines for Tier II and III carriers should depend on our adoption of staggered deployment deadlines.<sup>160</sup> Finally, if we adopt different reporting deadlines for Tier I versus Tier II and III carriers, we seek comment on the rules that should apply to resellers and to MVNOs.

## 2. Public Information and Outreach

72. In addition to the content and frequency of manufacturer and service provider reports, we seek comment on other ways to increase the availability of hearing aid compatibility information to consumers, service providers, and other interested parties. As explained in the *Staff Report*, the Commission's existing databases and websites are of limited value for these purposes.<sup>161</sup>

73. For example, although OET's equipment authorization database has information about hearing aid compatibility ratings associated with manufacturers' equipment, the database maintains such information based on FCC IDs, not handset model numbers,<sup>162</sup> and it does not maintain a single clear, current record associated with each ID.<sup>163</sup> Thus, it is difficult – particularly for an inexperienced user – to search for hearing aid-compatible models based either on the manufacturer's name or on the model's FCC ID. Similarly, the Disability Rights Office (DRO) of the Consumer and Government Affairs Bureau maintains a website that explains the disability access rules and provides contact information for manufacturers and service providers, but this website does not include information regarding the compatibility of particular handset models.<sup>164</sup> As noted in the *Staff Report*, although a consumer wishing to file a complaint under Section 255 of the Communications Act<sup>165</sup> can locate the designated agent's name and contact information from the Commission's website, no similar information is available under the process governing complaints for violations of hearing aid compatibility requirements.<sup>166</sup>

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<sup>160</sup> See *supra* ¶ 51 (discussion of staggered deployment).

<sup>161</sup> See *Staff Report* at ¶ 47.

<sup>162</sup> We note that the Commission's Part 2 rules do not require manufacturers to submit model information. See, e.g., 47 C.F.R. § 2.924 (stating that marketing of electrically identical devices having different model/type numbers or trade names is permitted without further authorization).

<sup>163</sup> For each FCC ID, the database record contains all the permissive changes permitted under Part 2 of the Commission's rules. See *id.* § 2.1043(b).

<sup>164</sup> See <http://www.fcc.gov/cgb/dro/> (last visited July 8, 2007).

<sup>165</sup> See 47 U.S.C. § 255 (mandating that telecommunications equipment and services be accessible to persons with disabilities, if such access is readily achievable).

<sup>166</sup> See *Staff Report* at ¶ 48 n.135; Comments of the American Association of People with Disabilities in 2006 Biennial Regulatory Review, CG Docket No. 06-152 (filed Sept. 16, 2006) (suggesting that process for filing hearing aid compatibility complaints be made more consumer-friendly by making it more similar to the process for (continued....))

74. In recognition of these shortcomings, we seek comment on potential measures to improve the value of these databases and websites for parties seeking hearing aid compatibility information, including, for example, adding a relevant search function to the equipment authorization database or adding links to manufacturers' and service providers' websites from the DRO's web page.<sup>167</sup> In addition to the ongoing efforts of Commission staff to continue to improve information available to consumers, service providers, and other interested parties, we seek comment as to any specific measures the Commission should require or take. For example, should we require manufacturers to include in their equipment authorization filings the handset models associated with each FCC ID number, and to update this information when they introduce new models? Should we adopt new Part 2 rules to require a filing for permissive changes that includes trade names and model numbers?<sup>168</sup> We also request comment on whether to require manufacturers and service providers subject to the Commission's hearing aid compatibility rules to follow the same procedures as those applicable to Section 255 complaints, and to have the Commission publish hearing aid compatibility designated agents' contact information on the DRO website.<sup>169</sup> We seek comment on the benefits and costs of any such requirements, and on any alternatives that may further our objective with less potential burden. Are there other steps we can take to develop a single location or website where hearing aid users can find the ratings and model numbers of compliant handsets offered by manufacturers and service providers?

75. We also seek comment on how the Commission can encourage digital wireless handset manufacturers and service providers to engage in additional outreach efforts to assist consumers with hearing disabilities as they shop for wireless phones.<sup>170</sup> We note that HIA has recently announced that its member hearing aid manufacturers will voluntarily include in their user manuals information about compatibility with mobile phones. In this regard, the Joint Consensus Plan urges manufacturers and service providers to voluntarily post hearing aid compatibility ratings not only for handsets that meet the Commission's compatibility benchmarks but for all devices, including those rated M1 or M2.<sup>171</sup> Although some service providers currently provide information on their company websites,<sup>172</sup> the content varies and may not always be up to date. In addition, although wireless handset manufacturers at the time of the *Hearing Aid Compatibility Order* agreed to provide group information on wireless phones that provide hearing aid compatibility characteristics through a combined information source established by

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Section 255 complaints). Under the hearing aid compatibility complaint process, consumers are responsible for identifying the agent designated by manufacturers or service providers for service of complaints under 47 C.F.R. § 68.418(b). We note that the Commission extended its Part 68, Subpart E rules to allow consumers to file informal complaints under those rules if they find that wireless service providers or manufacturers of wireless equipment are not complying with its hearing aid compatibility rules. *See Hearing Aid Compatibility Order*, 18 FCC Rcd at 16789 ¶ 95.

<sup>167</sup> *See Staff Report* at ¶ 48.

<sup>168</sup> *See* 47 C.F.R. §§ 2.924 & 2.1043.

<sup>169</sup> *See Staff Report* at ¶ 48 n.135.

<sup>170</sup> *See id.* at ¶ 96, *citing* letter from Carole M. Rogin, Executive Director, Hearing Industries Association to Linda S. Kahan, Deputy Director, Center for Devices and Radiological Health, Department of Health and Human Services, Food and Drug Administration, dated July 12, 2007 (filed in WT Docket No. 06-203).

<sup>171</sup> *See* Joint Consensus Plan at 14.

<sup>172</sup> *See, e.g.*, <http://www.wireless.att.com/about/disability-resources/disability-resources.jsp>; <http://aboutus.vzw.com/accessibility/index.html>; [http://www.nextel.com/en/about/community/hac\\_compliance.shtml](http://www.nextel.com/en/about/community/hac_compliance.shtml); [http://www.t-mobile.com/Company/Community.aspx?tp=Abt\\_Tab\\_Safety&tp=Abt\\_Sub\\_TTYPolicy](http://www.t-mobile.com/Company/Community.aspx?tp=Abt_Tab_Safety&tp=Abt_Sub_TTYPolicy).

CTIA,<sup>173</sup> this resource currently does not provide information about service providers other than the four Tier I carriers.<sup>174</sup>

76. Thus, as recommended in the *Staff Report*,<sup>175</sup> we seek comment on how best to promote the availability of useful hearing aid compatibility information on manufacturers' and service providers' websites, including whether we should not only encourage but require the posting of such information. We further seek comment as to what requirements or guidelines, if any, we should provide regarding the content of such postings. For example, should the information to be provided be modeled on the reporting criteria, discussed above, or should it be more limited? If manufacturers are required to meet a "product refresh" commitment,<sup>176</sup> should manufacturers and service providers be held to an outreach obligation specifically to inform the public about these new models?

77. Consistent with the recommendations in the *Staff Report*,<sup>177</sup> we also seek comment generally on any other ways that wireless manufacturers, service providers, and independent retailers can improve the effectiveness of their in-store testing, consumer education, and other consumer outreach efforts. These efforts would, ideally, include new ways of publicly identifying compliant phones for consumers and audiologists, as well as efforts that independent retailers could take to facilitate such identification. In addition, in order to assist consumers as they shop for wireless phones, we also ask whether there are additional steps the Commission can take to facilitate the flow of information between consumers, manufacturers, and service providers to meet our hearing aid compatibility outreach objectives.

#### **D. Other Components of Joint Consensus Plan, and Related Proposals**

78. As recommended in the *Staff Report*, we seek comment on several additional proposals in the Joint Consensus Plan, as well as on matters related to those proposals. Interested parties should discuss the advantages and disadvantages of these ideas and present any related hearing aid compatibility proposals or counter-proposals.

79. *Other Spectrum Bands.* The Joint Consensus Plan contains a request that the Commission apply the Commission's hearing aid compatibility rules to all spectrum bands that are used for the provision of CMRS in the United States, subject to standards development.<sup>178</sup> As discussed previously,<sup>179</sup> we determined earlier this year that all digital CMRS providers, regardless of the particular band in which they were operating, as well as manufacturers of handsets capable of providing such services, should be subject to the hearing aid compatibility requirements set forth in Section 20.19 to the extent that a service satisfies the scope provision for hearing aid compatibility set forth in our Part 20 rules.<sup>180</sup> We seek comment generally on whether any further action is necessary or appropriate in this regard, and in

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<sup>173</sup> See [www.accesswireless.org](http://www.accesswireless.org).

<sup>174</sup> See <http://www.accesswireless.org/accessibility/sites.cfm>.

<sup>175</sup> See *Staff Report* at ¶ 54.

<sup>176</sup> See *supra* ¶ 54.

<sup>177</sup> See *Staff Report* at ¶ 55.

<sup>178</sup> Joint Consensus Plan at 4.

<sup>179</sup> See *700 MHz Service Report and Order*, 22 FCC Rcd at 8117-8122 ¶¶ 142-50.

<sup>180</sup> The Commission also explained that it cannot impose hearing aid compatibility requirements for a band or service until applicable technical standards have been established. In recognition of the pressing need to develop applicable technical standards in certain frequency bands for which service rules have been or will soon be established, the Commission established a 24-month timetable for interested stakeholders to develop standards in these bands. *Id.*

particular on several specific questions that relate to the extension of hearing aid compatibility requirements to new frequency bands. First, we seek comment on how our current hearing aid compatibility requirements apply to mobile satellite service (MSS) providers that offer CMRS and whether any revisions to the hearing aid compatibility rules are appropriate respecting such providers, in order to promote consistent treatment for all CMRS providers that offer functionally equivalent services.<sup>181</sup> In this regard, we ask commenters to address whether it should make a difference if an MSS provider offers service purely through a satellite-based network or through a combined network that relies on both satellite and ancillary terrestrial component (ATC) facilities.<sup>182</sup>

80. Second, we agree with the recommendation in the *Staff Report* that standard-setting bodies should strive to develop hearing aid compatibility standards together with technical operating specifications for new frequency bands.<sup>183</sup> We seek comment on any measures that we should take to promote this practice.

81. Third, as noted above, the Commission has held that if a handset manufacturer or service provider offers a multi-band handset in order to comply with the hearing aid compatibility requirements, the handset must be hearing aid-compatible in each frequency band over which it operates.<sup>184</sup> We tentatively conclude to codify this requirement in Section 20.19 of the rules. We further tentatively conclude, consistent with this principle, that multi-band phones should not be counted as compatible in any band if they operate over frequency bands for which technical standards have not been established. We believe this limitation would conform with consumers' expectation that a phone labeled "hearing aid compatible" is compatible in all its operations. Treating such handsets as not compatible would also create incentives for industry bodies to develop compatibility standards for new frequency bands more quickly. We seek comment on this tentative conclusion.

82. Fourth, we note that the ANSI C63.19 standard includes target values for hearing aid compatibility validation procedures for operation over specific air interfaces at frequencies in the ranges of 800-950 MHz and 1.6-2.5 GHz.<sup>185</sup> In the *700 MHz Service Report and Order*, we stated that once technical standards are established for a new frequency band, the Commission would initiate a further proceeding to establish a specific timetable for deployment of hearing aid-compatible handsets in that band.<sup>186</sup> Accordingly, we tentatively conclude to revise Section 20.19(b) to include services operating over any frequencies within these two bands, to the extent they employ air interfaces for which hearing aid compatibility technical standards have been established and approved by the Commission. We seek comment on this tentative conclusion, including whether any other revisions to Section 20.19 are necessary in connection with the inclusion of these services.

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<sup>181</sup> See *Staff Report* at ¶ 75; see also 47 C.F.R. § 20.9(a)(10) (including MSS that involves the provision of commercial radio service directly to end users within the definition of CMRS).

<sup>182</sup> See Flexibility for Delivery of Communications by Mobile Satellite Service Providers in the 2 GHz Band, the L Band, and the 1.6/2.4 GHz Band, *Report and Order and Notice of Proposed Rulemaking*, 18 FCC Rcd 1962 (2003) (permitting flexibility in the delivery of communications by MSS providers that operate in three sets of radio frequency bands: the 2 GHz MSS band (the 1990-2025 MHz uplink and the 2165-2200 MHz downlink), the L-band (general designation for frequencies from 1 to 2 GHz) and the Big LEO bands (referring to the 1.6/2.4 GHz bands).

<sup>183</sup> See *Staff Report* at ¶ 76.

<sup>184</sup> See *supra* ¶ 11 and note 31.

<sup>185</sup> *ANSI C63.19-2007 Standard* at 18, Table 4.2.

<sup>186</sup> *700 MHz Service Report and Order*, 22 FCC Rcd at 8119 ¶ 148.

83. In addition, we now seek comment on whether we can, and should, establish a mechanism under which hearing aid compatibility regulations would become applicable to future frequency bands as soon as, or within a defined period after, technical standards are established for relevant air interfaces. Under our current rules, the Commission must modify Section 20.19 pursuant to rulemaking to add new services or new frequency bands. Amending Section 20.19 so that a rule change is not necessary every time technical standards are established for new services, new air interfaces, or new frequency bands potentially would bring the benefits of compatible handsets more quickly to consumers and would provide greater certainty to all affected parties. In addition, to the extent that manufacturers and service providers are already meeting their obligations to offer defined numbers or percentages of hearing aid-compatible handsets over previously covered services, the automatic extension of our rules to additional frequency bands may not impose significant additional burdens, and may even assist manufacturers and service providers in achieving compliance by permitting them to count multi-band models as compliant. We ask commenters to address both the benefits and the drawbacks of an automatic effectiveness regime, as well as what the specific rules should entail. Under existing rules, the Commission generally must approve revised versions of ANSI C63.19 for such revised standards to take effect for purposes of our hearing aid compatibility requirements.<sup>187</sup> Should a standard be considered “established” for a new frequency band upon its promulgation by C63, or should there be a process for the Commission or its staff to review or approve the standard, and if so what should that process be?

84. *Multi-Mode Handsets.* We tentatively conclude to adopt the proposal in the Joint Consensus Plan stating that multi-mode handsets do not satisfy Section 20.19 for any air interface unless they are compatible in all air interfaces over which they operate.<sup>188</sup> This approach is consistent with the Commission’s previous holding regarding multi-band handsets.<sup>189</sup> We further tentatively conclude, consistent with our tentative conclusion regarding multi-band handsets, that multi-mode phones should not be counted as compatible in any mode if they operate over air interfaces for which technical standards have not been established. As explained above, we believe this rule would conform to consumers’ expectations and would help promote the rapid development of compatibility standards for new air interfaces. We seek comment on these tentative conclusions and on any other potential measures to promote the development of compatibility standards for new air interfaces together with technical operating specifications.

85. *De Minimis Exception.* The Joint Consensus Plan proposes that the Commission retain the *de minimis* exception and clarify that it applies on a per-air interface basis.<sup>190</sup> In the Second Report and Order above, we conclude that the record compiled in response to the *Hearing Aid Compatibility Reconsideration Order and Further Notice* does not support any narrowing of the *de minimis* exception.<sup>191</sup> We invite further comment on this question. In addition, the Commission has already clarified that the *de minimis* exception applies on a per-air interface basis, rather than across a

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<sup>187</sup> See *Hearing Aid Compatibility Order*, 18 FCC Rcd at 16779 ¶ 63 (not discussing the inclusion of additional services, air interfaces, or frequency bands). The Chief, Wireless Telecommunications Bureau, in coordination with Chief, Office of Engineering and Technology, does have delegated authority to approve revised versions of ANSI C63.19 to the extent that the changes to the standard do not raise major compliance issues. *Id.*

<sup>188</sup> Joint Consensus Plan at 10.

<sup>189</sup> See *supra* ¶ 11 and note 31.

<sup>190</sup> Joint Consensus Plan at 10.

<sup>191</sup> See *supra* ¶¶ 22-31.

manufacturer's or carrier's entire product line.<sup>192</sup> We tentatively conclude that this clarification should be codified in our rules. We seek comment on this tentative conclusion.

86. *2010 Further Review.* The Joint Consensus Plan proposes that the Commission establish a further review of the hearing aid compatibility rules in 2010.<sup>193</sup> We tentatively conclude to adopt this proposal, and we seek comment. In particular, given the timing of the obligations we propose today, we seek comment on whether such a review would be more appropriate at a later date, such as in 2012. Once the proposed deployment deadlines have passed and the Commission can assess the effectiveness of any action we take arising out of our proposals herein, we may decide to add new or additional obligations, or on the other hand, reduce our oversight role if the state of competition or technology supports such action.

87. *Volume Controls.* Consistent with the Joint Consensus Plan's recommendation, we urge all interested parties to specifically look into adding volume controls to wireless handsets. As discussed in the *Staff Report*, some in the deaf and hard of hearing community state that one of the hearing aid users' most important concerns regarding wireless devices is the lack of adequate volume control on handsets.<sup>194</sup> We seek comment on whether any volume control requirements should be incorporated into our rules, and if so what they should be.<sup>195</sup>

88. Similarly, the Technology Access Program of Gallaudet University has pointed out that the display screens on smart phones emit electromagnetic energy that may interfere with the operation of hearing aids.<sup>196</sup> We invite comment on this issue, including whether any measures are appropriate to promote the deployment of phones that enable users to turn off their screens.

#### **E. Emerging Technologies**

89. We seek comment on whether our hearing aid compatibility rules should be modified to address new technologies being used and offered by manufacturers and providers in their wireless handsets and networks. Under current Commission rules, manufacturers and service providers are required to meet the Commission's hearing aid compatibility standards only to the extent that handsets are associated with digital CMRS networks that "offer real-time, two-way switched voice or data service that is interconnected with the public switched network and utilize[] an in-network switching facility that enables the provider to reuse frequencies and accomplish seamless hand-offs of subscriber calls."<sup>197</sup> We seek comment on whether we should extend some or a portion of the hearing aid compatibility requirements under Section 20.19 to wireless handsets that may fall outside the definition of CMRS and the criteria in Section 20.19(a), such as handsets that operate on unlicensed WiFi<sup>198</sup> networks that do not

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<sup>192</sup> See *supra* ¶ 29; *Hearing Aid Compatibility Reconsideration Order and Further Notice*, 20 FCC Rcd at 11244 ¶ 51. Thus, if a manufacturer or service provider offers two or fewer handset models capable of operating over a given air interface (including both single-mode and multi-mode models), it is not subject to benchmarks applicable to that air interface.

<sup>193</sup> Joint Consensus Plan at 12.

<sup>194</sup> See *Staff Report* at ¶ 66.

<sup>195</sup> We note that the Joint Consensus Plan does not propose adopting any rules in this regard.

<sup>196</sup> Comments of Technology Access Program of Gallaudet University in WT Docket No. 06-203 at 7.

<sup>197</sup> 47 C.F.R. § 20.19(a).

<sup>198</sup> WiFi (Wireless Fidelity) is a wireless technology that is based on the Institute of Electrical and Electronics Engineers (IEEE) 802.11 standards.

employ “an in-network switching facility that enables the provider to reuse frequencies and accomplish seamless hand-offs.”<sup>199</sup>

90. The *Staff Report* provides several examples of service providers offering access to VoIP applications over WiFi and other wireless technologies.<sup>200</sup> For example, the report describes how wireless handset manufacturers are increasingly using WiFi to expand consumer access to VoIP services,<sup>201</sup> and it explains how some handsets being marketed today for voice telephony have dual-mode voice operability between unlicensed modes and the traditional licensed networks subject to Section 20.19.<sup>202</sup> The report also discusses handsets that combine voice operation over traditional licensed CMRS networks with WiFi data service.<sup>203</sup> Consistent with our commitment under the Hearing Aid Compatibility Act of 1988, we agree with the recommendation in the *Staff Report* that the Commission should consider whether to change its rules to address these developments. With services using emerging technologies becoming increasingly popular with consumers, we seek comment on how to apply our hearing aid compatibility rules consistently and in a technology-neutral manner, and how to ensure that an appropriate selection of operating handset models continues to meet the needs of the deaf and hard of hearing community.

91. First, we seek comment generally on the application of our hearing aid compatibility rules to VoIP applications provided over wireless technologies such as WiFi and other emerging technologies. Under the Hearing Aid Compatibility Act, telephones used with public mobile services and private radio services are exempt from the general requirement that all newly manufactured telephones meet hearing aid compatibility standards, unless that exemption is lifted by the Commission.<sup>204</sup> In 2003, the Commission partially lifted this exemption for telephones used with broadband PCS, cellular, and SMR services that 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.<sup>205</sup> In doing so, the Commission crafted a tailored rule that not only recognized the extent of technical standards that had been established, but encompassed those services that were then almost exclusively used for interconnected mobile voice access. More recently, we expanded our rule to cover all digital CMRS that meet the criteria specified in the rule, subject to the existence of applicable standards, in recognition that similar services will soon be provided to the mass market outside of the previously identified bands.<sup>206</sup>

92. We ask commenters to address how current and anticipated future use of VoIP applications over wireless networks, both interconnected and non-interconnected, would be treated under the interaction of the Hearing Aid Compatibility Act and our rules. To the extent such services are not within the current scope of Section 20.19(a), are they exempt from hearing aid compatibility obligations, or would they fall under the general rule requiring hearing aid compatibility for all newly manufactured

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<sup>199</sup> 47 C.F.R. § 20.19(a).

<sup>200</sup> We note that VoIP is an application and can be provided over various frequency bands using any air interface, including those used to provide non-VoIP services.

<sup>201</sup> See *Staff Report* at ¶ 79.

<sup>202</sup> *Id.*

<sup>203</sup> *Id.*

<sup>204</sup> 47 U.S.C. § 610(b)(2).

<sup>205</sup> 47 C.F.R. § 20.19(a); see *Hearing Aid Compatibility Order*, 18 FCC Rcd at 16764-65 ¶ 26.

<sup>206</sup> See *700 MHz Order*, 22 FCC Rcd at 8117-8120 ¶¶ 142-144.

telephones?<sup>207</sup> If the latter, how would this requirement apply in the absence of established technical standards,<sup>208</sup> or if there are different standards between, for example, cordless phones and mobile wireless phones both supporting VoIP and used by consumers in similar situations? Moreover, what constitutes a telephone in the context of new devices that more closely resemble mobile computers but have voice communications capabilities? Should we broaden or otherwise modify the scope of Section 20.19 in order both to maintain technological neutrality and to insure that hard of hearing consumers continue to have access to a selection of wireless services and features comparable to the general population? If so, how should any new language be crafted? Commenters suggesting changes are asked to address not only the policy reasons for their proposed revisions, but also the Commission's legal authority to adopt them under the Hearing Aid Compatibility Act and the Communications Act.

93. In addition, we solicit comment as to whether any new hearing aid compatibility rules are appropriate to address handsets that combine covered mobile voice operation with data services provided over WiFi networks or other emerging technologies. We note that such service combinations may be particularly attractive to deaf and hard of hearing consumers, but that our current rules do not necessarily require that any such handsets be hearing aid-compatible if the manufacturer and service provider satisfy their hearing aid compatibility benchmarks using other models.<sup>209</sup> Elsewhere in this Notice, we tentatively conclude to adopt "product refresh" and "tiering" rules that are intended to ensure consumers who use hearing aids will have access to mobile handsets with a range of functionalities.<sup>210</sup> We seek comment as to whether these proposed rules appropriately promote the availability of hearing aid-compatible handsets that include data services provided over WiFi networks or other emerging technologies, or whether additional measures are needed. In this regard, we note that the requirements of Section 20.19 apply to handsets used with either voice or data services that fall within its terms.<sup>211</sup> We seek comment as to the implications of imposing hearing aid compatibility requirements based on the provision of wireless data services, and whether this provision should be changed.

94. Finally, we invite broad comment on what additional regulatory obligations may be appropriate to address the issues raised by emerging wireless technologies, taking into account the statutory goal to promote equal access to communications equipment and services for consumers with hearing loss as well as economic, technological, and legal constraints.<sup>212</sup> Regulation may be appropriate

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<sup>207</sup> See 47 U.S.C. § 610(b)(1); 47 C.F.R. § 68.4.

<sup>208</sup> We note that we have authority to waive this requirement for new telephones, technologies, or services upon a showing that making such telephones hearing aid-compatible would be technologically infeasible or would increase costs to such an extent as to preclude successful marketing. 47 U.S.C. § 610(b)(3).

<sup>209</sup> See *Staff Report* at ¶ 82 n.228 (noting that Apple's iPhone is not hearing aid-compatible, and that Apple is not known to be involved in any discussions regarding hearing aid compatibility).

<sup>210</sup> See *supra* ¶¶ 54-57.

<sup>211</sup> 47 C.F.R. § 20.19(a); *but see Hearing Aid Compatibility Order*, 18 FCC Rcd at 16765 ¶ 26 (stating that the rule would apply only to voice services).

<sup>212</sup> We note that, in the *Wireless Broadband Internet Access Service Declaratory Ruling*, the Commission reiterated its commitment to effectuate the accessibility policy embodied in section 255 of the Communications Act and stated that it would continue to monitor the development of wireless broadband Internet access service and its effects on the policy goals of section 255. See *In the Matter of Appropriate Regulatory Treatment for Broadband Access to the Internet Over Wireless Networks*, WT Docket No. 07-53, Declaratory Ruling, 22 FCC Rcd 5901, 5921-22 ¶¶ 58-59 (2007). We note also that the Commission has extended disability access and telecommunications relay service requirements to providers of interconnected VoIP services. See *IP-Enabled Services, Implementation of Sections 255 and 251(a)(2); Access to Telecommunications Service, Telecommunications Equipment, and Customer* (continued....)

when new technology causes people with hearing disabilities to lose access, but we are unsure what the extent of any access problem may be and what measures may best address any such problem, and we therefore invite commenters to address this question. As emerging technologies progress, the deaf and hard of hearing community should be able to benefit to a similar degree as the mainstream population, as has been our goal under Section 20.19.

#### F. Networks using Open Platforms for Devices and Applications

95. In the *700 MHz Second Report and Order*, we required that licensees of the Upper 700 MHz Band C Block of spectrum provide “open platforms” for devices and applications to allow customers, device manufacturers, third-party application developers, and others to use the devices and applications of their choosing in C Block networks, subject to certain reasonable network management conditions that allow the licensee to protect the network from harm.<sup>213</sup> We explained that “handsets connected to the network but not actually offered by the provider do not alter the extent to which the provider has complied with . . . [our hearing aid compatibility] requirement[s].”<sup>214</sup> The open platform network mandate, however, may fundamentally alter the paradigm within which the hearing aid compatibility rules apply. As currently constituted, Section 20.19 of our rules imposes hearing aid compatibility obligations only on manufacturers and providers of services within its scope, including resellers and MVNOs.<sup>215</sup> With the growth of open platform networks, however, entities other than the traditional equipment manufacturers and service providers may become increasingly significant. For example, Skype Communications S.a.r.l. operates as an application developer providing software applications that ride over a service provider’s network to enable VoIP communications. While the existing requirements on manufacturers,<sup>216</sup> together with the open platform requirements themselves, may be adequate to ensure sufficient hearing aid-compatible handset choice for consumers, we seek comment on whether any additional hearing aid compatibility requirements should be imposed in the context of open platform networks.<sup>217</sup>

96. We seek comment both on whether to impose additional hearing aid compatibility requirements on manufacturers in the context of open platform networks, and on whether to extend any requirements to entities that are not currently covered. For example, should we modify our rules to require that for open platform networks for which they offer handsets, manufacturers must make available a certain number or percentage of hearing aid-compatible models to consumers through channels other than the service provider? In addition, we seek comment on whether and how to extend our hearing aid compatibility requirements to the responsible manufacturing party in joint venture situations. For example, if one partner produces phones on a build-to-suit basis for a second party that markets and prices

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Premises Equipment by Persons with Disabilities, WC Docket No. 04-36, WT Docket No. 96-198, CG Docket No. 03-123, *Report and Order*, 22 FCC Rcd 11275 (2007).

<sup>213</sup> In the Matter of Service Rules for the 698-746, 747-762 and 777-792 MHz Bands, WT Docket 06-150, *Second Report and Order*, 22 FCC Rcd 15289, 15365 ¶ 206 (2007) (*700 MHz Service Second Report and Order*). The Upper 700 MHz Band C Block is composed of 22 megahertz of spectrum at 746-757 MHz and 776-787 MHz. *Id.* at 15294 ¶ 4.

<sup>214</sup> *Id.*

<sup>215</sup> 47 C.F.R. § 20.19(a).

<sup>216</sup> Under our current rules, and under the revised rules proposed in this Notice, manufacturers are required to meet the Commission’s hearing aid compatibility standards by producing a certain number or percentage of hearing aid-compatible handset models for service providers. These hearing aid compatibility requirements for manufacturers are codified in terms of what handsets they “must offer” to “service providers.” See 47 C.F.R. § 20.19(c)(1), (d)(1).

<sup>217</sup> See *700 MHz Service Second Report and Order*, 22 FCC Rcd at 15365 ¶ 206.

the handset devices to service providers, which party should be held responsible for compliance in such a production/distribution scheme?

97. We also seek comment on whether and how to extend our hearing aid compatibility rules, including handset deployment, information, and outreach requirements, from service providers to other entities offering handsets to consumers within an open platform environment. For example, as discussed above, the record compiled in response to the notice portion of the *Hearing Aid Compatibility Order on Reconsideration and Further Notice* did not support extending in-store testing requirements beyond retail outlets owned or operated by service providers.<sup>218</sup> Considering the development of open platform networks, however, there may be a greater need for in-store testing by independent retailers or other third parties. We therefore seek comment on whether these or other rules should be revised in the context of open platform networks. We seek comment on the regulatory status under our current hearing aid compatibility rules of application developers and other potential new participants using open platform networks, and on whether any new hearing aid compatibility requirements should appropriately be imposed on such entities.

## V. STAY OF FEBRUARY 18, 2008 REQUIREMENTS

98. As discussed above, under existing rules manufacturers and wireless service providers are required to ensure that, by February 18, 2008, at least 50 percent of their handset models over each air interface meet a U3/M3 (or higher) rating for RF interference reduction, as codified in Section 20.19 of our rules.<sup>219</sup> However, in the Notice we tentatively conclude to modify this particular hearing aid compatibility benchmark by including an alternative benchmark for February 18, 2008, as well as additional benchmarks for 2009-2011.<sup>220</sup> In addition, we propose to impose new benchmarks for deploying handsets that meet standards for providing inductive coupling capability during 2008-2011.<sup>221</sup>

99. We intend to issue a Report and Order addressing the issues raised in this Notice in the near future, in advance of the upcoming February 18, 2008 benchmark. In consideration of the need for certainty, and in order to provide appropriate notification to manufacturers and service providers as regards the hearing aid compatibility obligations, we determine that it is in the public interest to stay enforcement of that particular benchmark for 60 days, until April 18, 2008.

## VI. PROCEDURAL MATTERS

100. *Ex Parte Rules.* Pursuant to Section 1.1206 of the Commission's *ex parte* rules, 47 C.F.R. § 1.1206, this rulemaking proceeding proposing the amendment of the Commission's rule governing hearing aid compatible telephones is a permit-but-disclose proceeding. Provided they are disclosed in accordance with the Commission's rules, *ex parte* presentations are permitted, except during the Sunshine Agenda period.

101. *Filing Procedures.* 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 and reply comments should be filed in WT Docket No. 07-250.** Comments may be filed using: (1) the Commission's Electronic Comment Filing System (ECFS), (2) the Federal Government's eRulemaking Portal, or (3) by filing paper copies. *See Electronic Filing of Documents in Rulemaking Proceedings*, 63 FR 24121 (1998).

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<sup>218</sup> See *supra* ¶ 27.

<sup>219</sup> See 47 C.F.R. § 20.19(c).

<sup>220</sup> See *supra* Section IV.A.1.

<sup>221</sup> *Id.*

- Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: <http://www.fcc.gov/cgb/ecfs/> or the Federal eRulemaking Portal: <http://www.regulations.gov>. Filers should follow the instructions provided on the website for submitting comments.
  - For ECFS filers, if multiple docket or rulemaking numbers appear in the caption of this proceeding, filers must transmit one electronic copy of the comments for each docket or rulemaking number referenced in the caption. In completing the transmittal screen, filers should include their full name, U.S. Postal Service mailing address, and the applicable docket or rulemaking number. Parties may also submit an electronic comment by Internet e-mail. To get filing instructions, filers should send an e-mail to [ecfs@fcc.gov](mailto:ecfs@fcc.gov), and include the following words in the body of the message, “get form.” A sample form and directions will be sent in response.
- Paper Filers: Parties who choose to file by paper must file an original and four copies 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 (although we continue to experience delays in receiving U.S. Postal Service mail). All filings must be addressed to the Commission’s Secretary, Office of the Secretary, Federal Communications Commission.

- The Commission’s contractor will receive hand-delivered or messenger-delivered paper filings for the Commission’s Secretary at 236 Massachusetts Avenue, NE, Suite 110, Washington, DC 20002. The filing hours at this location are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes must be disposed of before entering the building.
- 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 12<sup>th</sup> Street, SW, Washington DC 20554.

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](mailto:fcc504@fcc.gov) or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (tty).

102. *Regulatory Flexibility Act.* Pursuant to the Regulatory Flexibility Act, 5 U.S.C. § 603, the Initial Regulatory Flexibility Act Analysis is set forth at Appendix C. We request written public comments on the Initial Regulatory Flexibility Analysis. These comments must be filed in accordance with the same filing deadlines as the comments on the rest of the Notice of Proposed Rule Making, but they must have a separate and distinct heading designating them as responses to the Initial Regulatory Flexibility Analysis. The Commission’s Consumer Information Bureau, Reference Information Center, shall send a copy of this Notice of Proposed Rule Making, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration, in accordance with the Regulatory Flexibility Act.

103. *Initial Paperwork Reduction Act.* This Notice of Proposed Rulemaking contains

proposed new and modified information collection requirements. The Commission, as part of its continuing effort to reduce paperwork burdens, invites the general public and the Office of Management and Budget (OMB) to comment on the information collection requirements contained in this document, as required by the Paperwork Reduction Act of 1995, Public Law 104-13. Comments should address: (a) whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility; (b) the accuracy of the Commission's burden estimates; (c) ways to enhance the quality, utility, and clarity of the information collected; and (d) ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology. In addition, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, *see* 44 U.S.C. 3506(c)(4), we seek specific comment on how we might "further reduce the information collection burden for small business concerns with fewer than 25 employees." We note, however, that Section 213 of the Consolidated Appropriations Act of 2000, Pub. L. No. 106-113, provides that rules governing frequencies in the 746-806 MHz Band become effective immediately upon publication in the Federal Register without regard to certain sections of the Paperwork Reduction Act. We therefore do not invite comment on any information collections to the extent they concern frequencies in the 746-806 MHz Band. In addition to filing comments with the Secretary, a copy of any PRA comments on the information collections contained herein should be submitted to Judith B. Herman, Federal Communications Commission, 445 Twelfth Street, S.W., Room 1-B441, Washington, D.C. 20554, or by sending an email to PRA@fcc.gov and to Nicholas A. Fraser, OMB desk officer, via the Internet to nfraser@omb.eop.gov or via fax at 202-395-5167.

## VII. ORDERING CLAUSES

104. IT IS ORDERED that, pursuant to the authority of 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, this Second Report and Order and Notice of Proposed Rulemaking IS HEREBY ADOPTED.

105. 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 the Notice of Proposed Rulemaking on or before 30 days after publication of the Notice of Proposed Rulemaking in the Federal Register and reply comments on or before 45 days after publication in the Federal Register.

106. IT IS FURTHER ORDERED that the petition of American National Standards Institute Accredited Standards Committee C63 (EMC) ANSI ASC C63™ IS GRANTED to the extent set forth herein.

107. IT IS FURTHER ORDERED that, pursuant to the authority of section 4(i) of the Communications Act, as amended, 47 U.S.C. § 154(i), and section 1.3 of the Commission's rules, 47 C.F.R. § 1.3, the requirements of sections 20.19(c)(1)(ii), 20.19(c)(2)(ii), and 20.19(c)(3)(ii) of the Commission's rules, 47 C.F.R. §§ 20.19(c)(1)(ii), 20.19(c)(2)(ii), 20.19(c)(3)(ii), ARE STAYED until April 18, 2008.

108. IT IS FURTHER ORDERED that the Commission's Consumer Information Bureau, Reference Information Center, SHALL SEND a copy of the Second Report and Order and Notice of Proposed Rulemaking, including the IRFA, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch  
Secretary

**APPENDIX A**

**Parties Filing Comments To 2005 Further Notice  
Of Proposed Rulemaking**

**Comments**

Cingular Wireless LLC  
Consumer Electronics Retailers Coalition (CERC)  
RadioShack Corporation  
Research in Motion Limited

**Reply Comments**

CompUSA  
The Hearing Industries Association (HIA)  
T-Mobile USA, Inc.

## APPENDIX B

## Proposed Rule In Joint Consensus Plan

**§ 20.19 Hearing aid-compatible mobile handsets.**

*(a) Scope of section.* This section is applicable to providers of Broadband Personal Communications Services (Part 24, Subpart E of this chapter), Cellular Radio Telephone Service (Part 22, Subpart H of this chapter), and Specialized Mobile Radio Services in the 800 MHz and 900 MHz bands (included in Part 90, Subpart S of this chapter) if such providers 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. This section also applies to the manufacturers of the wireless phones used in delivery of these services.

*(b) Technical standard for hearing aid compatibility.* A wireless phone used for public mobile radio services is hearing-aid compatible for the purposes of this section if it meets:

1) For radio frequency interference: A minimum M3 rating as set forth in the standard document “American National Standard for Methods of Measurement of Compatibility between Wireless Communication Devices and Hearing Aids,” ASC C63™ ANSI C63.19-2006 (published June 12, 2006) or, as hereinafter provided, ASC C63™ ANSI C63.19-2007 (published June 8, 2007) - - available for purchase from the American National Standards Institute, provided that grants of equipment authorization issued under other versions of standard document ANSI C63.19 remain valid for hearing aid compatibility purposes;

(2) For inductive coupling: A minimum T3 rating as set forth in the standard document “American National Standard for Methods of Measurement of Compatibility between Wireless Communication Devices and Hearing Aids,” ASC C63™ ANSI C63.19-2006 (published June 12, 2006) or, as hereinafter provided, ASC C63™ ANSI C63.19-2007 (published June 8, 2007) - - available for purchase from the American National Standards Institute, provided that grants of equipment authorization issued under other versions of standard document ANSI C63.19 remain valid for hearing-aid compatibility purposes;

(3) For both radio frequency interference and inductive coupling only ASC C63™ ANSI C63.19-2007 shall be used after January 1, 2010, for obtaining a grant of equipment authorization;

(4) Manufacturers must certify compliance with the test requirements and indicate the appropriate rating or ratings for the wireless phone as set forth in § 2.1033(d) of this chapter; and

(5) All factual questions of whether a wireless phone meets the technical standard of this subsection shall be referred for resolution to the Chief, Office of Engineering and Technology, Federal Communications Commission, 445 12th Street SW, Washington, D.C. 20554.

*(c) Phase-in for public mobile service handsets concerning radio frequency interference.*

(1) Each manufacturer of handsets for use with public mobile services in the United States or imported for use in the United States must:

(i) Ensure at least thirty-three (33) percent of its handset offerings to service providers

for each air interface offered comply with § 20.19(b)(1) not later than February 18, 2008; and

(ii) Meet these requirements with respect to handsets that operate in United States bands set forth in § 20.19(a).

Note: For purposes of determining whether the number of models offered meets the thirty-three percent requirement, the number of models that results when the total number of models offered in the United States by a manufacturer is multiplied by thirty-three percent shall be rounded down to the nearest whole number, except that when a manufacturer produces four to six models, the calculation shall be rounded up to the nearest whole number in determining whether the thirty-three percent requirement is met.

(iii) Beginning in calendar year 2009, and for each year thereafter that it elects to produce a new model, offer a mix of new and existing models that comply with § 20.19(b)(1) according to the following requirements:

(A) For manufacturers that produce four or more total models per air interface, at least one-half of the minimum required M3 or better models shall be new models introduced during the calendar year;

Note: For purposes of calculating the number of new models to be produced under the refresh requirement of § 20.19(c)(1)(iii)(A), the number determined by multiplying the total number of new HAC models offered in the United States by fifty percent shall be rounded up to the nearest whole number. See the *de minimus* exception in § 20.19(e).

(B) For manufacturers that produce three total models per air interface, at least one new M3-or-better model shall be introduced every other calendar year; and,

(C) If a manufacturer introduces no new models in a calendar year, no refresh of M3-or-better models shall be required.

(2) Each Tier 1 carrier must ensure that at least fifty (50) percent of its handset models for each air interface comply with § 20.19(b)(1) by February 18, 2008, calculated based on the total number of unique digital wireless phone models the carrier offers nationwide, or alternatively:

(i) Ensure that at least eight (8) of its handset models for each air interface comply with § 20.19(b)(1) not later than February 18, 2008;

(ii) Ensure that at least nine (9) of its handset models for each air interface comply with § 20.19(b)(1) by February 18, 2009;

(iii) Ensure that at least ten (10) of its handset models for each air interface comply with § 20.19(b)(1) by February 18, 2010;

(iv) Ensure that at least ten (10) of its handset models for each air interface comply with § 20.19(b)(1) by February 18, 2011.

(3) In meeting the requirements of § 20.19(c)(2), each Tier 1 carrier must provide models from multiple tiers and offer for sale and make available in each retail store owned or operated by the carrier HAC handset models for consumers to test in the store.

(4) [Placeholder for all other (e.g., Tier 2 and 3) carriers]

***(d) Phase-in for public mobile service handsets concerning inductive coupling.***

(1) Each manufacturer offering to service providers four (4) or more handsets in an air interface for use with public mobile services in the United States or imported for use in the United States must offer to service providers a minimum of two (2) T3 or better models compliant with § 20.19(b)(2) rated on the basis of ASC C63™ ANSI C63.19-2006 by February 18, 2008, or if the following is greater in any given year:

(i) Ensure that at least twenty (20) percent of its handset offerings to service providers in that air interface comply with § 20.19(b)(2) not later than February 18, 2009, provided that, of any such models introduced during calendar year 2009, one model may be rated using ASC C63™ ANSI C63.19-2006, and all other models introduced during that year or subsequent years shall be rated using ASC C63™ ANSI C63.19-2007;

(ii) Ensure that at least twenty-five (25) percent of its handset offerings to service providers in that air interface comply with § 20.19(b)(2) not later than February 18, 2010; and

(iii) Ensure that at least thirty-three (33) percent of its handset offerings to service providers in that air interface comply with § 20.19(b)(2) not later than February 18, 2011.

Note: For purposes of determining whether the number of models offered meets the percentage requirements of § 20.19(d)(1), the number of models that results when the total number of models offered per air interface in the United States by a manufacturer is multiplied by the specified percentage shall be rounded down to the nearest whole number.

(2) Each Tier 1 carrier must ensure at least thirty-three (33) percent of its handset offerings calculated based on the total number of unique digital wireless phone models the carrier offers nationwide for each air interface offered comply with § 20.19(b)(2) by February 18, 2008, or alternatively:

(i) Ensure that at least three (3) of its handset models for each air interface comply with § 20.19(b)(2) by February 18, 2008;

(ii) Ensure that at least five (5) of its handset models for each air interface comply with § 20.19(b)(2) by February 18, 2009;

(iii) Ensure that at least seven (7) of its handset models for each air interface comply with § 20.19(b)(2) by February 18, 2010, and

(iv) Ensure that at least ten (10) of its handset models for each air interface comply with § 20.19(b)(2) by February 18, 2011.

(3) In meeting the requirements of § 20.19(d)(2), each Tier 1 carrier must provide models from multiple tiers and offer for sale and make available in each retail store owned or operated by the carrier HAC handset models compliant with § 20.19(b)(2) for consumers to test in the store;

(4) [Placeholder for all other (e.g., Tier 2 and 3) carriers]

**(e) *De minimis* exception.**

(1) Manufacturers or mobile service providers that offer two or fewer digital wireless handsets in an air interface in the U. S. are exempt from the requirements of this section in that air interface. Mobile service providers that obtain handsets only from manufacturers that offer two or fewer digital wireless phone models in an air interface in the U. S. are likewise exempt from the requirements of this section in that air interface.

(2) Manufacturers or mobile service providers that offer three digital wireless handset models in an air interface must offer at least one compliant phone model in that air interface. Mobile service providers that obtain handsets only from manufacturers that offer three digital wireless phone models in an air interface in the U.S. are required to offer at least one compliant handset model in that air interface.

**(f) *Labeling requirements.*** Handsets used with public mobile services that are hearing-aid compatible, as defined in § 20.19(b) of this chapter, shall clearly display the rating, as defined in § 20.19(b)(1)(2) on the packaging material of the handset. An explanation of the ASC C63™ C63.19 rating system shall also be included in the device user's manual or as an insert in the packaging material for the handset.

**(g) *Reporting dates.*** The annual reporting date for manufacturers to report compliance with the requirements of this section shall be November 30; the annual reporting date for carriers to report compliance with the requirements of this section shall be May 30, provided that Tier 1 carriers shall file their first such report on May 30, 2008, and Tier 2 and 3 carriers shall file their first such report on May 30, 2009.

**(h) *Enforcement.*** Enforcement of this section is hereby delegated to those states which adopt this section and provide for enforcement. The procedures followed by a state to enforce this section shall provide a 30-day period after a complaint is filed, during which time state personnel shall attempt to resolve a dispute on an informal basis. If a state has not adopted or incorporated this section, or failed to act within six (6) months from the filing of a complaint with the state public utility commission, the Commission will accept such complaints. A written notification to the complainant that the state believes action is unwarranted is not a failure to act. The procedures set forth in Part 68, Subpart E of this chapter are to be followed.

## APPENDIX C

## Initial Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),<sup>1</sup> the Federal Communications Commission (Commission) has prepared this Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on a substantial number of small entities by the policies and rules considered in this Notice of Proposed Rulemaking, WT Docket No. 07-250.<sup>2</sup> 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 Notice provided on page one of this Notice. The Commission will send a copy of this Notice, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).<sup>3</sup> In addition, this Notice and IRFA (or summaries thereof) will be published in the Federal Register.<sup>4</sup>

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,<sup>5</sup> the Commission believes 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 Notice, including spectrum in the 746-806 MHz Band.

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

3. In the Notice, the Commission reexamines existing hearing aid compatibility requirements to ensure that they will continue to be effective in an evolving marketplace of new technologies and services. The Commission undertakes this review in accordance with its commitment in the 2003 *Hearing Aid Compatibility Order* to initiate a new rulemaking proceeding to evaluate: “(1) whether to increase [or] decrease the 2008 requirement to provide 50 percent of phone models that comply with a U3<sup>6</sup> rating; (2) whether to adopt [hearing aid compatibility] implementation benchmarks<sup>7</sup> beyond 2008; and (3) whether to otherwise modify the [hearing aid compatibility] requirements.”<sup>8</sup> To assist in forming

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<sup>1</sup> 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).

<sup>2</sup> Amendment of the Commission’s Rules Governing Hearing Aid-Compatible Mobile Handsets, WT Docket No. 07-250, Section 68.4(a) of the Commission’s Rules Governing Hearing Aid Compatible Telephones, WT Docket No. 01-309, Petition of American National Standards Institute Accredited Standards Committee C63 (EMC) ANSI ASC C63™, *Notice of Proposed Rulemaking*, FCC 07-192, (rel. Nov. 7, 2007) (*Notice*).

<sup>3</sup> See 5 U.S.C. § 603(a).

<sup>4</sup> *Id.*

<sup>5</sup> 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).

<sup>6</sup> See *Notice* at ¶ 11 (defining U3 rating).

<sup>7</sup> See *Notice* at ¶¶ 36-40 (defining existing benchmarks).

<sup>8</sup> See 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, 16782 ¶ 74 (2003); *Erratum*, 18 FCC Rcd 18047 (2003) (*Hearing Aid Compatibility Order*).

the basis for initiating this rulemaking, the Wireless Telecommunications Bureau (WTB), in WT Docket No. 06-203, recently released the *Staff Report*, which examines recent developments and includes several recommendations for measures to facilitate further implementation of the Commission's hearing aid compatibility requirements.<sup>9</sup> The proposals set forth in the Notice draw upon recommendations proposed in the *Staff Report*.

4. Several of these proposals, in turn, are based on an interconnected set of rule changes set forth in a consensus plan (Joint Consensus Plan) recently developed jointly by industry and representatives for the deaf and hard of hearing community. The specifics of the Joint Consensus Plan are contained in the Supplemental Comments of the Alliance for Telecommunications Industry Solutions (ATIS), which were submitted as part of the record in WT Docket No. 06-203.<sup>10</sup> First, the Joint Consensus Plan proposes several changes to the deadlines and other provisions requiring service providers and manufacturers to make available certain types of hearing aid-compatible phones, including: (1) "provid[ing] Tier I carriers with an alternative to the 50 percent rule for M-rated phones"; (2) "increas[ing] the number of T3-or-better phones that Tier I carriers must make available"; (3) "requir[ing] manufacturers to offer thirty three (33) percent of wireless phones at the M3-or-better level"; and (4) requiring "each manufacturer not subject to the *de minimis* exception . . . [to] produce at least two or more T3-or-better handsets."<sup>11</sup> These changes include new rules requiring manufacturers each year to include a certain number of new products among their hearing aid-compatible models, and requiring Tier I carriers to provide hearing aid-compatible models from multiple tiers of functionality.<sup>12</sup> Second, the Joint Consensus Plan proposes a transition to phase-in the 2007 version of the ANSI C63.19 standard for hearing aid compatibility testing.<sup>13</sup> Third, the Joint Consensus Plan proposes that service providers and manufacturers report regularly on the availability of products under updated criteria for information submissions.<sup>14</sup> Finally, to further accessibility to hearing aid-compatible phones, the Joint Consensus Plan proposes other steps that the Commission should take to adequately address hearing aid compatibility of wireless handsets.<sup>15</sup>

5. Although the Notice tentatively concludes substantially to adopt new M3- and T3-rated handset deployment benchmarks through 2011, and a related requirement to offer handsets with different levels of functionality, for Tier I carriers only,<sup>16</sup> it also seeks comment on the appropriate regime for smaller service providers. In addition, the Notice tentatively concludes to adopt new deployment

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<sup>9</sup> See Section 68.4(a) of the Commission's Rules Governing Hearing Aid-Compatible Telephones, WT Docket No. 01-309, WT Docket No. 06-203, *Report on the Status of Implementation of the Commission's Hearing Aid Compatibility Requirements*, DA 07-4151 (WTB rel. Oct. 5, 2007) (*Staff Report*).

<sup>10</sup> See Supplemental Comments of ATIS in WT Docket No. 06-203 (filed June 25, 2007) (Joint Consensus Plan).

<sup>11</sup> *Id.* at 4, 9 n.14.

<sup>12</sup> *Id.* at 4, 12.

<sup>13</sup> *Id.* at 4.

<sup>14</sup> *Id.*

<sup>15</sup> See, e.g., *Notice* at ¶¶ 78-88.

<sup>16</sup> The four nationwide, terrestrial CMRS carriers, AT&T Services, Inc., Verizon Wireless, Sprint Nextel, and T-Mobile USA, are considered Tier I carriers. See Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, Phase II Compliance Deadlines for Non-Nationwide CMRS Carriers, *Order to Stay*, 17 FCC Rcd 14841, 14843 ¶ 7 (2002) (*Non-Nationwide Carriers Order*). No Tier I carriers are small entities.

benchmarks for all manufacturers, subject to a *de minimis* exception for certain manufacturers with small product lines. Moreover, the Commission also tentatively concludes that the following steps that might affect small businesses are needed to meet its objectives: (1) implement a “product refresh” rule for manufacturers; (2) adopt, after a suitable phase-in period, the use of a single version of the ANSI C63.19 standard, ANSI C63.19-2007; and (3) adopt new content and timelines for hearing aid compatibility reporting requirements. In the context of several of these tentative conclusions, the Commission requests comment on possible compliance requirements not included within the Joint Consensus Plan’s framework. For example, the Commission seeks comment on the possibility of staggered handset deployment deadlines for different classes of service providers and manufacturers, additional reporting/outreach obligations, and other measures that may impact small entities. In addition, following upon the recommendations in the *Staff Report*, the Notice invites comments on new hearing aid compatibility issues implicated by recent developments relating to provision of Voice over Internet Protocol (VoIP) over wireless platforms, as well as “open platform” networks. The Commission is open to comment on what, if any, requirements it should, or should not, impose for small entities if it adopts new rules based on the proposals in the Notice.

6. To promote compatibility between digital wireless telephones and hearing aids, this Notice could result in rule changes that, if adopted, would create new opportunities and obligations for several categories of wireless service providers, as well as manufacturers of wireless handsets. The Commission’s hearing aid compatibility rules apply to providers of digital CMRS that “offer real-time, two-way switched voice or data service that is interconnected with the public switched network and utilize[] an in-network switching facility that enables the provider to reuse frequencies and accomplish seamless hand-offs of subscriber calls,” as well as to manufacturers of wireless phones used in the delivery of such services.<sup>17</sup> In this regard, the Commission determined earlier this year to extend hearing aid compatibility requirements to all services that meet these criteria, regardless of the particular band in which they operate, once applicable technical standards are established in the relevant bands.<sup>18</sup> Accordingly, the rule changes in the Notice may affect service providers and equipment manufacturers in services for which technical standards both have and have not been established. In addition, as discussed above, the Notice requests comment on potential rule changes that may affect providers of VoIP applications over wireless technologies, as well as independent retailers and other third parties in the context of “open platform” networks.

7. The Commission states that ensuring the availability of hearing aid-compatible handsets to hard of hearing consumers, as well as information about such handsets, remains a high priority. To the extent people who use hearing aids have difficulty finding a wireless mobile telephone that functions

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<sup>17</sup> 47 C.F.R. § 20.19(a).

<sup>18</sup> 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, 8117-8122 ¶¶ 142-50 (2007) (*700 MHz Order*). The Commission also explained that it cannot impose hearing aid compatibility requirements for a band or service until applicable technical standards have been established. In recognition of the pressing need to develop applicable technical standards in certain frequency bands for which service rules have been or will soon be established, the Commission established a 24-month timetable for interested stakeholders to develop standards in these bands. *Id.*

effectively with those devices because of interference or compatibility problems, the Commission states that a continued expansion in the number and availability of hearing aid-compatible wireless telephones is warranted. It explains that its objective is to take account of changing market and technological conditions with appropriate new steps to ensure that hearing aid users will continue to benefit from the convenience and features offered by the newest wireless communications systems being provided to American consumers.

## B. Legal Basis

8. The potential actions about which comment is sought in this 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 Rules Will Apply

9. 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.<sup>19</sup> The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.”<sup>20</sup> In addition, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act.<sup>21</sup> A “small business concern” is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).<sup>22</sup> 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 Notice.

**10. 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.<sup>23</sup> The SBA has approved these definitions.<sup>24</sup> The Commission auctioned geographic 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.

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<sup>19</sup> 5 U.S.C. § 604(a)(3).

<sup>20</sup> 5 U.S.C. § 601(6).

<sup>21</sup> 5 U.S.C. § 601(3) (incorporating by reference the definition of “small-business concern” in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies “unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register.”

<sup>22</sup> 15 U.S.C. § 632.

<sup>23</sup> 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).

<sup>24</sup> 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.

11. **700 MHz Guard Bands Licenses.** In the *700 MHz Guard Bands 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.<sup>25</sup> 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.<sup>26</sup> 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.<sup>27</sup> SBA approval of these definitions is not required.<sup>28</sup> An auction of 52 Major Economic Area (MEA) licenses for each of two spectrum blocks commenced on September 6, 2000, and closed on September 21, 2000.<sup>29</sup> 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 remaining 700 MHz Guard Bands licenses commenced on February 13, 2001, and closed on February 21, 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.<sup>30</sup> Subsequently, in the *700 MHz Second Report and Order*, the Commission reorganized the licenses pursuant to an agreement among most of the licensees, resulting in a spectral relocation of the first set of paired spectrum block licenses, and an elimination of the second set of paired spectrum block licenses (many of which were already vacant, reclaimed by the Commission from Nextel).<sup>31</sup> A single licensee that did not participate in the agreement was grandfathered in the initial spectral location for its two licenses in the second set of paired spectrum blocks.<sup>32</sup> Accordingly, at this time there are 54 licenses in the 700 MHz Guard Bands.

12. **700 MHz Band Commercial Licenses.** There is 80 megahertz of non-Guard Band spectrum in the 700 MHz Band that is designated for commercial use: 698-757, 758-763, 776-787, and 788-793 MHz Bands. **With** one exception, the Commission adopted criteria for defining two groups of small businesses for purposes of determining their eligibility for bidding credits at auction. These two categories are: (1) “small business,” which is defined as an entity that has attributed average annual gross revenues that do not exceed \$15 million during the preceding three years; and (2) “very small business,” which is defined as an entity with attributed average annual gross revenues that do not exceed \$40 million for the preceding three years.<sup>33</sup> In Block C of the Lower 700 MHz Band (710-716 MHz and 740-746

<sup>25</sup> See 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).

<sup>26</sup> *Id.* at 5343 ¶ 108.

<sup>27</sup> *Id.*

<sup>28</sup> *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).

<sup>29</sup> See “700 MHz Guard Bands Auction Closes: Winning Bidders Announced,” *Public Notice*, 15 FCC Rcd 18026 (2000).

<sup>30</sup> See “700 MHz Guard Bands Auctions Closes: Winning Bidders Announced,” *Public Notice*, 16 FCC Rcd 4590 (WTB 2001).

<sup>31</sup> See In the Matter of Service Rules for the 698-746, 747-762 and 777-792 MHz Bands, WT Docket 06-150, *Second Report and Order*, 22 FCC Rcd 15289, 15339-15344 ¶¶ 118-134 (2007) (*700 MHz Second Report and Order*).

<sup>32</sup> *Id.*

<sup>33</sup> See Auction of 700 MHz Band Licenses Scheduled for January 24, 2008, AU Docket No. 07-157, *Notice and Filing Requirements, Minimum Opening Bids, Reserve Prices, Upfront Payments, and Other Procedures for* (continued....)

MHz), which was licensed on the basis of 734 Cellular Market Areas, the Commission adopted a third criterion for determining eligibility for bidding credits: an “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.<sup>34</sup> The SBA has approved these small size standards.<sup>35</sup>

13. An auction of 740 licenses for Blocks C (710-716 MHz and 740-746 MHz) and D (716-722 MHz) of the Lower 700 MHz Band commenced on August 27, 2002, and closed on September 18, 2002. Of the 740 licenses available for auction, 484 licenses were sold to 102 winning bidders. Seventy-two of the winning bidders claimed small business, very small business, or entrepreneur status and won a total of 329 licenses.<sup>36</sup> A second auction commenced on May 28, 2003, and closed on June 13, 2003, and included 256 licenses: five EAG licenses and 251 CMA licenses.<sup>37</sup> Seventeen winning bidders claimed small or very small business status and won 60 licenses, and nine winning bidders claimed entrepreneur status and won 154 licenses.<sup>38</sup>

14. The remaining 62 megahertz of commercial spectrum is currently scheduled for auction on January 24, 2008. As explained above, bidding credits for all of these licenses will be available to “small businesses” and “very small businesses.”

**15. 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.<sup>39</sup> 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.”<sup>40</sup> SBA has approved these small business size standards for the aforementioned bands.<sup>41</sup> Correspondingly, the Commission adopted a bidding credit of 15 percent for “small businesses”

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*Auctions 73 and 76*, DA 07-4171 at ¶ 70 (WTB rel. Oct. 5, 2007); Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59), *Report and Order*, 17 FCC Rcd 1022, 1087-88 (2002).

<sup>34</sup> *Id.* at 1088.

<sup>35</sup> See Letter to Thomas Sugrue, Chief, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, Small Business Administration, dated August 10, 1999.

<sup>36</sup> See “Lower 700 MHz Band Auction Closes,” *Public Notice*, 17 FCC Rcd 17272 (WTB 2002).

<sup>37</sup> See “Lower 700 MHz Band Auction Closes,” *Public Notice*, 18 FCC Rcd 11873 (WTB 2003).

<sup>38</sup> *Id.*

<sup>39</sup> 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*).

<sup>40</sup> See *Service Rules Notice*, 17 FCC Rcd at 2550-51 ¶¶ 144-146. 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 million and \$15 million, respectively. Because the Commission is not adopting 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.

<sup>41</sup> 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 January 18, 2002.

and a bidding credit of 25 percent for “very small businesses.”<sup>42</sup> 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.<sup>43</sup> 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.<sup>44</sup> 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.<sup>45</sup> 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.<sup>46</sup> 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.

**16. Advanced Wireless Services.** In the *AWS-1 Report and Order*, the Commission adopted rules that affect applicants who wish to provide service in the 1710-1755 MHz and 2110-2155 MHz bands.<sup>47</sup> The Commission did not know precisely the type of service that a licensee in these bands might seek to provide. Nonetheless, the Commission anticipated that the services that will be deployed in these bands may have capital requirements comparable to those in the broadband Personal Communications Service (PCS), and that the licensees in these bands will be presented with issues and costs similar to those presented to broadband PCS licensees. Further, at the time the broadband PCS service was established, it was similarly anticipated that it would facilitate the introduction of a new generation of service. Therefore, the *AWS-1 Report and Order* adopts the same small business size definition that the Commission adopted for the broadband PCS service and that the SBA approved.<sup>48</sup> In particular, the *AWS-1 Report and Order* defines a “small business” as an entity with average annual gross revenues for

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<sup>42</sup> 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.

<sup>43</sup> 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).

<sup>44</sup> See *Service Rules Notice*, 17 FCC Rcd at 2550-51 ¶ 145.

<sup>45</sup> 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).

<sup>46</sup> 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).

<sup>47</sup> Service Rules for Advanced Wireless Services in the 1.7 GHz and 2.1 GHz Bands, WT Docket No. 02-353, *Report and Order*, 18 FCC Rcd 25162 (2003) (*AWS-1 Report and Order*).

<sup>48</sup> See Implementation of Section 309(j) of the Communications Act -- Competitive Bidding, *Third Memorandum Opinion and Order and Further Notice of Proposed Rulemaking*, 10 FCC Rcd 175, 196 (1995); Implementation of Section 309(j) of the Communications Act -- Competitive Bidding, *Fifth Report and Order*, 9 FCC Rcd 5581-5584 (1995); 47 C.F.R. §§ 24.320(b) and 24.720(b).

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. The *AWS-1 Report and Order* also provides small businesses with a bidding credit of 15 percent and very small businesses with a bidding credit of 25 percent.

**17. Broadband Radio Service and Educational Broadband Service.** Broadband Radio Service (“BRS”), formerly known as Multipoint Distribution Service (“MDS”),<sup>49</sup> and Educational Broadband Service (“EBS”), formerly known as Instructional Television Fixed Service (“ITFS”),<sup>50</sup> use frequencies at 2150-2162 and 2500-2690 MHz to transmit video programming and provide broadband services to residential subscribers.<sup>51</sup> These services, collectively referred to as “wireless cable,” were originally designed for the delivery of multichannel video programming, similar to that of traditional cable systems, but over the past several years licensees have focused their operations instead on providing two-way high-speed Internet access services.<sup>52</sup> We estimate that the number of wireless cable subscribers is approximately 100,000, as of March 2005. As described below, the SBA small business size standard for the broad census category of Cable and Other Program Distribution, which consists of such entities generating \$13.5 million or less in annual receipts, appears applicable to MDS and ITFS.<sup>53</sup> Other standards also apply, as described.

18. The Commission has defined small MDS (now BRS) entities in the context of Commission license auctions. In the 1996 MDS auction,<sup>54</sup> the Commission defined a small business as an entity that had annual average gross revenues of less than \$40 million in the previous three calendar years.<sup>55</sup> This definition of a small entity in the context of MDS auctions has been approved by the SBA.<sup>56</sup> In the MDS auction, 67 bidders won 493 licenses. Of the 67 auction winners, 61 claimed status as a small business. At this time, the Commission estimates that of the 61 small business MDS auction winners, 48 remain small business licensees. In addition to the 48 small businesses that hold BTA authorizations, there are approximately 392 incumbent MDS licensees that have gross revenues that are not more than \$40 million and are thus considered small entities.<sup>57</sup> MDS licensees and wireless cable operators that did not receive

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<sup>49</sup> See 47 C.F.R. Part 21, subpart K; Amendment of Parts 1, 21, 73, 74 and 101 of the Commission’s Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands; Part 1 of the Commission’s Rules - Further Competitive Bidding Procedures; Amendment of Parts 21 and 74 to Enable Multipoint Distribution Service and the Instructional Television Fixed Service Amendment of Parts 21 and 74 to Engage in Fixed Two-Way Transmissions; Amendment of Parts 21 and 74 of the Commission’s Rules With Regard to Licensing in the Multipoint Distribution Service and in the Instructional Television Fixed Service for the Gulf of Mexico, 19 FCC Rcd 14165 (2004) (“*MDS/ITFS Order*”).

<sup>50</sup> See 47 C.F.R. Part 74, subpart I; *MDS/ITFS Order*, 19 FCC Rcd 14165.

<sup>51</sup> See *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, Eleventh Annual Report*, 20 FCC Rcd 2507, 2565 ¶ 131 (2006) (“*2006 Cable Competition Report*”).

<sup>52</sup> *Id.*

<sup>53</sup> 13 C.F.R. § 121.201, NAICS code 515210.

<sup>54</sup> MDS Auction No. 6 began on November 13, 1995, and closed on March 28, 1996. (67 bidders won 493 licenses.)

<sup>55</sup> 47 C.F.R. § 21.961(b)(1).

<sup>56</sup> See *ITFS Order*, 10 FCC Rcd at 9589.

<sup>57</sup> 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 (continued....)

their licenses as a result of the MDS auction fall under the SBA small business size standard for Cable and Other Program Distribution. Information available to us indicates that there are approximately 850 of these licensees and operators that do not generate revenue in excess of \$13.5 million annually. Therefore, we estimate that there are approximately 850 small entity MDS (or BRS) providers, as defined by the SBA and the Commission's auction rules.

19. Educational institutions are included in this analysis as small entities; however, the Commission has not created a specific small business size standard for ITFS (now EBS).<sup>58</sup> We estimate that there are currently 2,032 EBS licensees, and all but 100 of the licenses are held by educational institutions. Thus, we estimate that at least 1,932 EBS licensees are small entities.

20. **Cellular Licensees.** The SBA has developed a small business size standard for small businesses in the category "Wireless Telecommunications Carriers (except satellite)."<sup>59</sup> Under that SBA category, a business is small if it has 1,500 or fewer employees.<sup>60</sup> For the census category of "Cellular and Other Wireless Telecommunications," Census Bureau data for 2002 show that there were 1,397 firms in this category that operated for the entire year.<sup>61</sup> Of this total, 1,378 firms had employment of 999 or fewer employees, and 19 firms had employment of 1,000 employees or more.<sup>62</sup> Thus, under this category and size standard, the majority of firms can be considered small.

21. **Broadband Personal Communications Service.** The broadband Personal Communications Service (PCS) spectrum is divided into six frequency blocks designated A through F, and the Commission has held auctions for each block. The Commission has created a small business size standard for Blocks C and F as an entity that has average gross revenues of less than \$40 million in the three previous calendar years.<sup>63</sup> For Block F, 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 revenues of not more than \$15 million for the preceding three calendar years.<sup>64</sup> These small business size standards, in the context of broadband PCS auctions, have been approved by the SBA.<sup>65</sup> No small businesses within the SBA-approved small business size standards bid successfully for licenses in Blocks A and B. There were

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applicable standard is SBA's small business size standards for "all other telecommunications" (annual receipts of \$23.5 million or less). See 13 C.F.R. § 121.201, NAICS code 517919.

<sup>58</sup> In addition, the term "small entity" under 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.

<sup>59</sup> 13 C.F.R. § 121.201, NAICS code 517210.

<sup>60</sup> *Id.*

<sup>61</sup> U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, "Establishment and Firm Size (Including Legal Form of Organization)," Table 5, NAICS code 517212.

<sup>62</sup> *Id.* The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is for firms with "1000 employees or more."

<sup>63</sup> See Amendment of Parts 20 and 24 of the Commission's Rules – Broadband PCS Competitive Bidding and the Commercial Mobile Radio Service Spectrum Cap, *Report and Order*, 11 FCC Rcd 7824, 7850-7852 ¶¶ 57-60 (1996); see also 47 C.F.R. § 24.720(b).

<sup>64</sup> See Amendment of Parts 20 and 24 of the Commission's Rules – Broadband PCS Competitive Bidding and the Commercial Mobile Radio Service Spectrum Cap, *Report and Order*, 11 FCC Rcd 7824, 7852 ¶ 60.

<sup>65</sup> 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.

90 winning bidders that qualified as small entities in the Block C auctions. A total of 93 “small” and “very small” business bidders won approximately 40 percent of the 1,479 licenses for Blocks D, E, and F.<sup>66</sup> On March 23, 1999, the Commission reaucted 155 C, D, E, and F Block licenses; there were 113 small business winning bidders.<sup>67</sup> On January 26, 2001, the Commission completed the auction of 422 C and F PCS licenses in Auction 35.<sup>68</sup> Of the 35 winning bidders in this auction, 29 qualified as “small” or “very small” businesses. 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.

22. **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.<sup>69</sup> The Commission awards “very small entity” bidding credits to firms that had revenues of no more than \$3 million in each of the three previous calendar years.<sup>70</sup> The SBA has approved these small business size standards for the 900 MHz Service.<sup>71</sup> The Commission has held auctions for geographic area licenses in the 800 MHz and 900 MHz bands. The 900 MHz SMR auction began on December 5, 1995, and closed on April 15, 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 began on October 28, 1997, and was completed on December 8, 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.<sup>72</sup> A second auction for the 800 MHz band was held on January 10, 2002 and closed on January 17, 2002 and included 23 BEA licenses. One bidder claiming small business status won five licenses.<sup>73</sup>

23. The auction of the 1,050 800 MHz SMR geographic area licenses for the General Category channels began on August 16, 2000, and was completed on September 1, 2000. Eleven bidders 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. In an auction completed on December 5, 2000, a total of 2,800 Economic Area licenses in the lower 80 channels of the 800 MHz SMR service were sold. Of the 22 winning bidders, 19 claimed “small business” status and won 129 licenses. Thus, combining all three auctions, 40 winning bidders for geographic licenses in the 800 MHz SMR band claimed status as small business.

24. In addition, there are numerous incumbent site-by-site SMR licensees and licensees with extended implementation authorizations in the 800 and 900 MHz bands. The Commission does not know

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<sup>66</sup> FCC News, “Broadband PCS, D, E and F Block Auction Closes,” No. 71744 (rel. January 14, 1997).

<sup>67</sup> See “C, D, E, and F Block Broadband PCS Auction Closes,” *Public Notice*, 14 FCC Rcd 6688 (WTB 1999).

<sup>68</sup> See “C and F Block Broadband PCS Auction Closes; Winning Bidders Announced,” *Public Notice*, 16 FCC Rcd 2339 (2001).

<sup>69</sup> 47 C.F.R. § 90.814(b)(1).

<sup>70</sup> *Id.*

<sup>71</sup> See Letter to Thomas Sugrue, Chief, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, Small Business Administration, dated August 10, 1999. We note that, although a request was also sent to the SBA requesting approval for the small business size standard for 800 MHz, approval is still pending.

<sup>72</sup> 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).

<sup>73</sup> See “Multi-Radio Service Auction Closes,” *Public Notice*, 17 FCC Rcd 1446 (WTB 2002).

how many firms provide 800 MHz or 900 MHz geographic area SMR pursuant to extended implementation authorizations, nor how many of these providers have annual revenues of no more than \$15 million, or have no more than 1,500 employees. One firm has over \$15 million in revenues. The Commission assumes, 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 established by the SBA.

**25. Rural Radiotelephone Service.** The Commission uses the SBA definition applicable to Wireless Telecommunications Carriers (except satellite),” *i.e.*, an entity employing no more than 1,500 persons.<sup>74</sup> There are approximately 1,000 licensees in the Rural Radiotelephone Service, and the Commission estimates 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.

**26. Air-Ground Radiotelephone Service.** The Commission uses the SBA definition applicable to Wireless Telecommunications Carriers (except satellite),” *i.e.*, an entity employing no more than 1,500 persons.<sup>75</sup> There are approximately 100 licensees in the Air-Ground Radiotelephone Service, and the Commission estimates that almost all of them qualify as small entities under the SBA definition.

**27. Offshore Radiotelephone Service.** This service operates on several ultra high frequency (UHF) TV broadcast channels that are not used for TV broadcasting in the coastal area of the states bordering the Gulf of Mexico. At present, there are approximately 55 licensees in this service. The Commission uses the SBA definition applicable to Wireless Telecommunications Carriers (except satellite),” *i.e.*, an entity employing no more than 1,500 persons.<sup>76</sup> The Commission is unable at this time to estimate the number of licensees that would qualify as small entities under the SBA definition. The Commission assumes, for purposes of this analysis, that all of the 55 licensees are small entities, as that term is defined by the SBA.

**28. Mobile Satellite Service Carriers.** Neither the Commission nor the U.S. Small Business Administration has developed a small business size standard specifically for mobile satellite service licensees. The appropriate size standard is therefore the SBA standard for Satellite Telecommunications, which provides that such entities are small if they have \$13.5 million or less in annual revenues.<sup>77</sup> Currently, the Commission’s records show that there are 31 entities authorized to provide voice and data MSS in the United States. We do not have sufficient information to determine which, if any, of these parties are small entities. The Commission notes that small businesses are not likely to have the financial ability to become MSS system operators because of high implementation costs, including construction of satellite space stations and rocket launch, associated with satellite systems and services. Still, we request comment on the number and identity of small entities that would be significantly impacted by the proposed rule changes.

**29. Wireless Communications Equipment Manufacturers.** The SBA has established a small business size standard for wireless communications equipment manufacturers. Under the standard, firms are considered small if they have 750 or fewer employees.<sup>78</sup> Census Bureau data for 1997 indicates that,

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<sup>74</sup> 13 C.F.R. § 121.201, NAICS code 517210.

<sup>75</sup> *Id.*

<sup>76</sup> *Id.*

<sup>77</sup> 13 C.F.R. § 121.201, North American Industry Classification System (“NAICS”) code 51740, formerly NAICS code 513340.

<sup>78</sup> 13 C.F.R. § 121.201, NAICS code 334220.

for that year, there were a total of 1,215 establishments<sup>79</sup> in this category.<sup>80</sup> Of those, there were 1,150 that had employment under 500, and an additional 37 that had employment of 500 to 999. The Commission estimates that the majority of wireless communications equipment manufacturers are small businesses.

**30. Radio, Television, and Other Electronics Stores.** “This U.S. industry comprises: (1) establishments known as consumer electronics stores primarily engaged in retailing a general line of new consumer-type electronic products; (2) establishments specializing in retailing a single line of consumer-type electronic products (except computers); or (3) establishments primarily engaged in retailing these new electronic products in combination with repair services.”<sup>81</sup> The SBA has developed a small business size standard for this category of retail store; that size standard is \$7.5 million or less in annual revenues.<sup>82</sup> According to Census Bureau data for 1997, there were 8,328 firms in this category that operated for the entire year.<sup>83</sup> Of these, 8,088 firms had annual sales of under \$5 million, and an additional 132 had annual sales of \$5 million to \$9,999,999. Therefore, the majority of these businesses may be considered to be small.<sup>84</sup>

**31. Internet Service Providers.** In the Notice, the Commission seeks comment on whether to extend hearing aid compatibility requirements to entities offering access to VoIP applications over WiFi<sup>85</sup> and other wireless technologies that may fall outside the definition of CMRS and/or the criteria in Section 20.19(a), such as those operating on networks that do not employ “an in-network switching facility that enables the provider to reuse frequencies and accomplish seamless hand-offs.” Such applications may be provided, for example, by Internet Service Providers (ISPs). ISPs are Internet Publishing and Broadcasting and Web Search Portals<sup>86</sup> that provide clients access to the Internet and generally provide related services such as web hosting, web page designing, and hardware or software consulting related to Internet connectivity. To gauge small business prevalence for these Internet Publishing and Broadcasting and Web Search Portals, we must, however, use current census data that are based on the previous category of Internet Service Providers and its associated size standard. That standard was: all such firms having \$23.5 million or less in annual receipts. Accordingly, to use data available to us under the old standard and Census Bureau data for 2002, there were 2,529 firms in this category that operated for the

<sup>79</sup> The number of “establishments” is a less helpful indicator of small business prevalence in this context than would be the number of “firms” or “companies,” because the latter take into account the concept of common ownership or control. Any single physical location for an entity is an establishment, even though that location may be owned by a different establishment. Thus, the number given may reflect inflated numbers of businesses in this category, including the numbers of small businesses. In this category, the Census break-out data for firms or companies only gives the total number of such entities for 1997, which was 1,089.

<sup>80</sup> U.S. Census Bureau, *1997 Economic Census*, Industry Series: Manufacturing, “Industry Statistics by Employment Size,” Table 4, NAICS code 334220 (issued August 1999).

<sup>81</sup> U.S. Census Bureau, “2002 NAICS Definitions: 443112 Radio, Television, and Other Electronics Stores,” [www.census.gov](http://www.census.gov) (last modified on May 5, 2003).

<sup>82</sup> 13 C.F.R. § 121.201, NAICS code 443112.

<sup>83</sup> U.S. Census Bureau, *1997 Economic Census*, Subject Series: Retail Trade, “Radio, Television, and other Electronics Stores,” Table 4, NAICS code 443112 (issued Oct. 2000). These data indicate the estimated annual “sales size” for the firms.

<sup>84</sup> *Id.*

<sup>85</sup> WiFi (Wireless Fidelity) is a wireless technology that is based on the Institute of Electrical and Electronics Engineers 802.11 standards.

<sup>86</sup> U.S. Census Bureau, “Internet Publishing and Broadcasting and Web Search Portals,” NAICS code 519130.

entire year.<sup>87</sup> Of these, 2,437 firms had annual receipts of under \$10 million, and an additional 47 firms had receipts of between \$10 million and \$24,999,999. Consequently, we estimate that the majority of these firms are small entities that may be affected by our action.

**32. All Other Information Services.** “This industry comprises establishments primarily engaged in providing other information services (except new syndicates and libraries and archives).”<sup>88</sup> VoIP services over wireless technologies could be provided by entities that provide other services such as email, online gaming, web browsing, video conferencing, instant messaging, and other, similar IP-enabled services. The SBA has developed a small business size standard for this category; that size standard is \$6.5 million or less in average annual receipts.<sup>89</sup> According to Census Bureau data for 1997, there were 195 firms in this category that operated for the entire year.<sup>90</sup> Of these, 172 had annual receipts of under \$5 million, and an additional nine firms had receipts of between \$5 million and \$9,999,999. Consequently, we estimate that the majority of these firms are small entities that may be affected by our action.

**33. Part 15 Device Manufacturers.** Manufacturers of unlicensed wireless devices may also become subject to requirements in this proceeding for their devices used to provide VoIP applications. The Commission has not developed a definition of small entities applicable to unlicensed communications devices manufacturers. Therefore, we will utilize the SBA definition applicable to 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.”<sup>91</sup> 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.<sup>92</sup> According to Census Bureau data for 2002, there were a total of 1,041 establishments in this category that operated for the entire year.<sup>93</sup> Of this total, 1,010 had employment of under 500, and an additional 13 had employment of 500 to

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<sup>87</sup> U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, “Establishment and Firm Size (Including Legal Form of Organization),” Table 4, NAICS code 518111 (issued Nov. 2005).

<sup>88</sup> U.S. Census Bureau, “2002 NAICS Definitions: 519190 All Other Information Services” (Feb. 2004) <[www.census.gov](http://www.census.gov)>. We note that the Commission has not reached conclusions as to whether, or under what conditions, VoIP services constitute communications or information services under the Communications Act, and our identification of this group of small entities as providers of “information services” under the Census Bureau definition is not intended to indicate any conclusions in this regard.

<sup>89</sup> 13 C.F.R. § 121.201, NAICS code 519190.

<sup>90</sup> U.S. Census Bureau, 1997 Economic Census, Subject Series: Information, “Establishment and Firm Size (Including Legal Form of Organization),” Table 4, NAICS code 514199 (issued Oct. 2000). This category was created for the 2002 Economic Census by taking a portion of the superseded 1997 category, “All Other Information Services,” NAICS code 514199. The data cited in the text above are derived from the superseded category.

<sup>91</sup> U.S. Census Bureau, 2002 NAICS Definitions, “334220 Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing”; <http://www.census.gov/epcd/naics02/def/NDEF334.HTM#N3342>.

<sup>92</sup> 13 C.F.R. § 121.201, NAICS code 334220.

<sup>93</sup> U.S. Census Bureau, American FactFinder, 2002 Economic Census, Industry Series, Industry Statistics by Employment Size, NAICS code 334220 (released May 26, 2005); <http://factfinder.census.gov>. The number of “establishments” is a less helpful indicator of small business prevalence in this context than would be the number of (continued....)

999.<sup>94</sup> 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**

34. The Commission tentatively concludes that it will adopt several reporting, recordkeeping, and other compliance requirements which could affect small entities. For example, as discussed in Section A above, manufacturers and service providers have filed regular reports with the Commission since 2003 detailing their hearing aid compatibility efforts. In order to address shortcomings that have been observed in the existing reports and to render future reports as transparent and useful as possible for consumers, industry, and Commission staff responsible for helping to ensure that the Commission's hearing aid compatibility requirements are fully implemented, the Commission tentatively concludes to adopt new content requirements, as recommended in the *Staff Report* and proposed in the Joint Consensus Plan.<sup>95</sup>

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

35. 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) and exemption from coverage of the rule, or any part thereof, for small entities.”<sup>96</sup>

36. The Commission seeks comment generally on the effect the rule changes considered in this 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. The Commission invites comment on ways in which it can achieve its goals while minimizing the burden on small wireless service providers, equipment manufacturers, and other entities.

37. For example, the Commission specifically considers handset deployment benchmark alternatives for small businesses.<sup>97</sup> In this regard, the Commission requests comment regarding the appropriate benchmarks and deadlines for Tier II and Tier III carriers,<sup>98</sup> resellers, mobile virtual network operators (MVNOs), and other categories of smaller service providers. The Commission notes that in the past numerous Tier II and Tier III carriers have requested, and many have been granted, extension of compatible handset deployment deadlines because they were unable timely to obtain compliant handsets (Continued from previous page)

“firms” or “companies,” because the latter take into account the concept of common ownership or control. Any single physical location for an entity is an establishment, even though that location may be owned by a different establishment. Thus, the numbers given may reflect inflated numbers of businesses in this category, including the numbers of small businesses. In this category, the Census breaks-out data for firms or companies only to give the total number of such entities for 2002, which was 929.

<sup>94</sup> *Id.* An additional 18 establishments had employment of 1,000 or more.

<sup>95</sup> See *supra* Section A; see also *supra* para. 5 (stating “For example, the Commission seeks comment on the possibility of . . . additional reporting/outreach obligations . . . that may impact small entities.”)

<sup>96</sup> 5 U.S.C. §§ 603(c)(1)-(c)(4).

<sup>97</sup> See, e.g., *Notice* at ¶¶ 50-51.

<sup>98</sup> Tier II carriers are non-nationwide wireless radio service providers with more than 500,000 subscribers. Tier III carriers are non-nationwide wireless radio service providers with 500,000 or fewer subscribers. See *Non-Nationwide Carriers Order*, 17 FCC Rcd at 14847 ¶¶ 22-24.

in sufficient quantities from manufacturers. The Commission states that Tier II and Tier III carriers may have more difficulty than Tier I carriers in obtaining handsets due to market realities. Accordingly, the Commission seeks comment on the alternative of whether the handset deployment benchmarks proposed for Tier I carriers are appropriate for smaller carriers, and on whether the deadlines for those entities in particular should be later than those applicable to manufacturers. To consider the economic impact on small entities, the Commission asks commenters to address whether there is anything inherent in the characteristics of smaller service providers that would prevent them from meeting either the RF interference or inductive coupling-capable handset numbers and percentages set out for Tier I carriers. The Commission asks commenters to discuss with specificity any alternative requirements or schedules that they propose for these types of service providers, and the reasons for those alternatives.

38. The Notice also considers the alternative of delayed reporting obligations for non-Tier I carriers, which includes small entities. The Notice seeks comment on the appropriate reporting timelines for Tier II and III carriers, including the alternative of delaying their next reports for a period of 18 months to two years from their reports that will be submitted in November 2007, versus the alternative of whether they should instead be held to the same schedule as Tier I carriers in order to provide a steady source of information to consumers and to the Commission. In this context, the Commission considers the extent of the burdens to Tier II and III carriers that would be avoided by postponing their first reports as proposed under the Joint Consensus Plan. For example, given that Tier II and III carriers have already been filing reports regularly, the Commission seeks comment on the extent of any inconvenience or costs that would be avoided by postponing their first reports as proposed under the Joint Consensus Plan, balanced against the extent of information that would be lost by introducing a gap of 18 months or more in their reporting. Finally, the Notice asks commenters to address whether the delayed reporting deadline alternative for Tier II and III carriers should depend on what deployment deadlines (described above) are adopted.

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

39. None.