

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

In the Matter of	)	
	)	
Improvements to Benchmarks and Related	)	WT Docket No. 15-285
Requirements Governing Hearing Aid-Compatible	)	
Mobile Handsets	)	

**REPORT AND ORDER**

**Adopted: August 4, 2016**

**Released: August 5, 2016**

By the Commission:

**TABLE OF CONTENTS**

Heading	Paragraph #
I. INTRODUCTION.....	1
II. BACKGROUND.....	5
III. ADOPTION OF ENHANCED BENCHMARKS.....	20
IV. ADVANCEMENT OF A 100 PERCENT COMPATIBILITY DEPLOYMENT BENCHMARK .....	34
A. Open Docket for Supplemental Submissions.....	36
B. Timeline for Submissions .....	40
C. Issues for Consensus.....	42
V. PROCEDURAL MATTERS.....	51
A. Regulatory Flexibility Act .....	51
B. Paperwork Reduction Analysis.....	52
C. Congressional Review Act.....	53
D. Accessible Formats .....	54
E. Further Information.....	55
VI. ORDERING CLAUSES.....	56
APPENDIX A – List of Commenters	
APPENDIX B – Final Rules	
APPENDIX C – Final Regulatory Flexibility Analysis	

**I. INTRODUCTION**

1. In this Report and Order, we take several steps to implement a historic consensus proposal for ensuring that people with hearing loss have full access to innovative handsets. First, we amend the hearing aid compatibility requirements that are generally applicable to wireless service providers and manufacturers of digital wireless handsets. Specifically, we increase the number of hearing aid-compatible handsets that service providers and manufacturers are required to offer with two new percentage benchmarks: (1) 66 percent of offered handset models must be compliant following a two-year transition period for manufacturers, with additional compliance time for service providers, and (2) 85 percent of offered handset models must be compliant following a five-year transition period for manufacturers, with additional compliance time for service providers. We also expand the *de minimis* exception to provide a more limited obligation for entities offering four or five handsets.

2. These amendments are based on the collaborative efforts of digital wireless handset manufacturers, consumer groups representing those with hearing loss, and wireless service providers. Working together over a period of months, they reached a consensus on how best to increase the availability of hearing aid-compatible wireless handsets for those with hearing loss. We appreciate the time, effort, and expertise that the stakeholders devoted to this achievement. The broad support in the record for the stakeholders' proposal is a testament to their success in balancing competing interests. Because of their efforts, the revisions we adopt today to our wireless hearing aid compatibility rules will ensure greater access to wireless communication services for Americans with hearing loss.

3. In this Report and Order, we also reconfirm our commitment to pursuing 100 percent hearing aid compatibility to the extent achievable. We therefore invite consensus plan stakeholders and other interested parties to make supplemental submissions over the next several years on the achievability of a 100 percent hearing aid compatibility deployment benchmark considering technical and market conditions. As part of this process, we also expect stakeholders to make submissions on additional points of agreement regarding other unresolved issues raised in this proceeding, including using alternative technologies to achieve hearing aid compatibility and establishing a safe harbor for service providers based on a public clearinghouse that claims to identify compliant handsets.

4. In order to advance towards our proposed 100 percent compatibility deployment benchmark, we seek to continue the productive collaboration between stakeholders and other interested parties so that the Commission can obtain data and information about the technical and market conditions involving wireless handsets and hearing improvement technologies. In this regard, we suggest a timeline identifying general milestones over the next several years when the consensus plan stakeholders and other interested parties may, at their election, make additional submissions. Based in significant part on the information we receive, we intend to determine the achievability of a 100 percent compliance standard for wireless hearing aid compatibility by no later than 2024. The steps that we take today in this Report and Order set a clear path forward towards a future in which hearing aid compatibility will be ensured to the maximum extent feasible in all new technologies offered by manufacturers and service providers in their wireless handsets and networks.

## II. BACKGROUND

5. In the *2003 Hearing Aid Compatibility Report and Order*, in order to make digital wireless phones accessible to individuals who use hearing aids or have cochlear implants, the Commission promulgated rules generally requiring manufacturers and service providers to offer a selection of digital wireless handsets meeting specified standards for hearing aid compatibility.<sup>1</sup> Specifically, the Commission adopted deployment obligations for manufacturers and service providers, requiring them to meet defined benchmarks, *i.e.*, to ensure that a certain percentage or, in some circumstances, a certain number of their digital wireless handset models are hearing aid-compatible. The Commission established two separate benchmarks for compatibility—one for acoustic coupling mode and a second for inductive coupling mode.<sup>2</sup> Thus, under the Commission's rules, a handset can be hearing aid-compatible in acoustic coupling mode without being compatible in inductive coupling mode.

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<sup>1</sup> *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, 16754 para. 2, 16764-65 para. 26 (2003) (*2003 Hearing Aid Compatibility Report and Order*). Throughout this Report and Order, we use the terms "handset" and "digital wireless handset" interchangeably.

<sup>2</sup> Hearing aids operating in acoustic coupling mode receive sound from the handset through a microphone and then amplify all sounds surrounding the user, including both desired sounds, such as a telephone's audio signal, and unwanted ambient noise. In such a mode, the hearing aid user may experience static in the hearing aid due to Radio Frequency (RF) interference caused by the handset's RF emissions. A handset's hearing aid compatibility rating in this mode is therefore indicative of a reduction in the handset's potential to cause such RF interference. Hearing aids operating in inductive coupling mode turn off the microphone to avoid amplifying unwanted ambient noise, instead using a telecoil to receive only audio signal-based magnetic fields generated by inductive coupling-capable

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6. While the Commission's wireless hearing aid compatibility rules have incorporated this deployment approach since the adoption of the *2003 Hearing Aid Compatibility Report and Order*, the Commission has on occasion revised the deployment obligations that manufacturers and service providers are required to meet.<sup>3</sup> In June 2007, the Alliance for Telecommunications Industry Solutions (ATIS) working group filed a comprehensive consensus plan with the Commission to revise the hearing aid compatibility rules and, as part of this plan, adjust the acoustic and inductive coupling benchmarks.<sup>4</sup> The ATIS working group—composed of nationwide service providers, handset manufacturers, and several organizations representing the interests of people with hearing loss—submitted a consensus plan calling for the benchmarks to increase over time, up to a final set of standards that became effective in 2010. In February 2008, the Commission adopted the consensus plan's revised benchmarks and minimum deployment standards, and this approach remains in effect today.<sup>5</sup>

7. The current deployment benchmarks require that, subject to a *de minimis* exception described below, a handset manufacturer must meet, for each air interface over which its models operate, (1) at least an M3 rating for acoustic coupling for at least one-third of its models using that air interface (rounded down), with a minimum of two models, and (2) at least a T3 rating for inductive coupling for at least one-third of its models using that interface (rounded down), with a minimum of two models.<sup>6</sup>

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telephones. 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.

<sup>3</sup> *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) (modifying benchmarks slightly); *Amendment of the Commission's Rules Governing Hearing Aid Compatible Mobile Handsets, Section 68.4(a) of the Commission's Rules Governing Hearing Aid Compatible Telephones*; *Petition of American National Standards Institute Accredited Standards Committee C63 (EMC) ANSI ASC C63™*, WT Dockets No. 01-309 and 07-250, Second Report and Order and Notice of Proposed Rulemaking, 22 FCC Rcd 19670, 19679 para. 22 (2007) (reviewing benchmarks but not changing them).

<sup>4</sup> See Supplemental Comments of ATIS, WT Docket No. 06-203 (filed June 25, 2007); *Amendment of the Commission's Rules Governing Hearing Aid-Compatible Mobile Handsets*, WT Docket No. 07-250, First Report and Order, 23 FCC Rcd 3406, 3414 para. 23 (2008) (*First Report and Order*).

<sup>5</sup> See *First Report and Order*, 23 FCC Rcd at 3418-3419 paras. 35-36; 47 CFR §§ 20.19(c), (d), (e).

<sup>6</sup> 47 CFR §§ 20.19(c)(1), (d)(1). To define and measure the hearing aid compatibility of handsets, the Commission's rules reference a technical standard formulated by the ANSI Accredited Standards Committee C63® – Electromagnetic Compatibility which is part of the American National Standards Institute (ANSI Standard). A handset is considered hearing aid-compatible for acoustic coupling if it meets a rating of at least M3 under the applicable ANSI Standard and for inductive coupling if it meets a rating of at least T3. See *Amendment of the Commission's Rules Governing Hearing Aid-Compatible Mobile Handsets*, WT Docket No. 07-250, Third Report and Order, 27 FCC Rcd 3732, 3733 para. 4 (2012) (*Third Report and Order*). Using a digital wireless phone with a hearing aid or cochlear implant in acoustic coupling mode requires measures to control RF interference and other electromagnetic interference from the wireless phone. ANSI C63.19 specifies ratings for digital wireless phones measuring the extent to which they control for RF emissions. An "M1" rating identifies handsets with the highest emissions, and an "M4" rating identifies those with 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 identifying the least immune and M4 the most immune. To determine whether a particular digital wireless phone is likely to interfere with a particular hearing aid, the immunity rating of the hearing aid is added to the emissions rating of the wireless phone. A sum of 4 indicates that the wireless phone will be usable; a sum of 5 indicates that the wireless phone will provide normal use; and a sum of 6 or greater indicates that the wireless phone will provide excellent performance with that hearing aid. See Accredited Standards Committee C63® – Electromagnetic Compatibility, *American National Standard Methods of Measurement of Compatibility between Wireless Communications Devices and*

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Similarly, a service provider must meet, for each air interface over which its models operate, (1) at least an M3 rating for acoustic coupling for at least 50 percent of its models using that air interface (rounded up) or ten models, and (2) at least a T3 rating for inductive coupling for at least one-third of its models using that interface (rounded up) or ten models.<sup>7</sup>

8. In general, under the *de minimis* exception, most manufacturers and service providers that offer two or fewer digital wireless handset models operating over a particular air interface are exempt from the benchmark deployment requirements in connection with that air interface.<sup>8</sup> Larger manufacturers with two or fewer handset models in an air interface have a limited obligation, as do service providers offering two or fewer models that obtain those models only from larger manufacturers.<sup>9</sup> The provision further provides that any manufacturer or service provider that offers three digital wireless handset models operating over a particular air interface must offer at least one such handset model that meets our acoustic and inductive coupling requirements for that air interface.<sup>10</sup>

9. To help ensure compliance with these benchmarks, the Commission's hearing aid compatibility rules also require wireless handset manufacturers and wireless service providers to submit annual reports to the Commission detailing the covered handsets that they offer for sale, the models that are hearing aid-compatible (and the specific rating), and other information relating to the requirements of the rule.<sup>11</sup> In June 2009, the Commission introduced the electronic FCC Form 655 as the mandatory form for filing these reports, and since that time, both service providers and manufacturers have filed reports using the electronic system.<sup>12</sup> Service provider compliance filings are due January 15 each year and manufacturer reports are due July 15 each year.<sup>13</sup>

10. The Commission's wireless hearing aid compatibility rules also require service providers to make hearing aid-compatible models available for consumer testing in retail stores that they own or operate.<sup>14</sup> In addition, handset manufacturers must regularly refresh their hearing aid-compatible offerings with new handset models, and service providers must offer hearing aid-compatible models with differing levels of functionality.<sup>15</sup> Finally, handset manufacturers and service providers must disclose

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*Hearing Aids*, ANSI C63.19-2007 (June 8, 2007) at 5. Handsets and hearing aids are rated from T1 to T4 for inductive coupling capability in a similar manner to the M-ratings.

<sup>7</sup> 47 CFR §§ 20.19(c)(2), (c)(3), (d)(2), (d)(3). See also *First Report and Order*, 23 FCC Rcd at 3418-19 para. 35.

<sup>8</sup> 47 CFR § 20.19(e). This exception applies to manufacturers and service providers that have had less than a certain threshold of employees for at least two years (750 employees for manufacturers and 1500 employees for service providers), and that have not been offering handsets over an air interface for at least two years. *Id.* at § 20.19(e)(1)(ii).

<sup>9</sup> Larger manufacturers are defined as those having had more than 750 employees for at least two years and larger service providers are defined as those having had more than 1500 employees for at least two years. *Id.* Specifically, the rule provides that larger manufacturers that have been offering one or two handsets over an air interface for at least two years must offer at least one handset model compliant with the Commission's acoustic and inductive coupling requirements. *Id.* Service providers that offer one or two handsets over an air interface but that obtain these handsets from a larger manufacturer are subject to similar obligations. *Id.*

<sup>10</sup> *Id.* at § 20.19(e)(2).

<sup>11</sup> *Id.* at § 20.19(i)(1)-(3).

<sup>12</sup> See *The Wireless Telecommunications Bureau Reminds Wireless Handset Manufacturers of Their Obligation to Report on the Status of Compliance with the Commission's Hearing Aid Compatibility Requirements by July 15, 2009*, Public Notice, 24 FCC Rcd 5821 (2009).

<sup>13</sup> 47 CFR § 20.19(i)(1).

<sup>14</sup> *Id.* at § 20.19(c)(4)(i), (d)(4)(i).

<sup>15</sup> *Id.* at § 20.19(c)(1)(ii), (c)(4)(ii), (d)(4)(ii).

information about their hearing aid-compatible models in packaging materials, at the point of sale and on their websites, including disclosures regarding handset operations that do not have established hearing aid compatibility technical standards.<sup>16</sup>

11. On November 12, 2015, three consumer advocacy organizations and three industry trade associations submitted a Joint Consensus Proposal (JCP) providing for a process for moving away from the current fractional benchmark regime.<sup>17</sup> The parties to the JCP state that they “agree that hearing aid compatibility for all wireless handsets is our collective goal” and that “the Commission’s regulations must balance this goal with the ability to encourage innovations that can benefit all people with disabilities.”<sup>18</sup> With these principles in mind, the JCP proposes staged increases in the applicable deployment benchmarks, culminating in a 100 percent benchmark in eight years, subject to an assessment by the Commission of whether complete compatibility is achievable.

12. Specifically, the JCP provides that within two years of the effective date of the new rules, 66 percent of wireless handset models offered to consumers should be compliant with the Commission’s acoustic coupling (M rating) and inductive coupling (T rating) requirements.<sup>19</sup> The proposal provides further that within five years of the effective date, 85 percent of wireless handset models offered to consumers should be compliant with the Commission’s M and T rating requirements.<sup>20</sup>

13. In addition to these two-year and five-year benchmarks, the proposal provides that “[t]he Commission should commit to pursue that 100% of wireless handsets offered to consumers should be compliant with [the M and T rating requirements] within eight years.”<sup>21</sup> The JCP conditions the transition to 100 percent, however, on a Commission determination within seven years of the rules’ effective date that reaching the 100 percent goal is “achievable.”<sup>22</sup> The JCP prescribes the following process for making that determination:

Creating a task force, including all stakeholders, identifying questions for exploration in year four after the effective date that the benchmarks described above are established. After convening, the stakeholder task force will issue a report to the Commission within two years.

The Commission, after review and receipt of the report described above, will determine whether to implement 100 percent compliance with [the M and T ratings requirements] based on concrete data and information about the technical and market conditions involving wireless handsets and the landscape of hearing improvement technology collected in years four and five. Any new benchmarks resulting from this determination, including 100 percent compliance, would go into effect no less than twenty-four months after the Commission’s determination.

Consumer groups and the Wireless Industry shall work together to hold meetings going forward

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<sup>16</sup> *Id.* at § 20.19(f), (h).

<sup>17</sup> See Letter from James Reid, Senior Vice President, Government Affairs, TIA, Scott Bergmann, Vice President, Regulatory Affairs, CTIA, Rebecca Murphy Thompson, General Counsel, CCA, Anna Gilmore Hall, Executive Director, HLAA, Claude Stout, Executive Director, Telecommunications for the Deaf and Hard of Hearing, and Howard A. Rosenblum, Chief Executive Officer, National Association of the Deaf, to Marlene H. Dortch, Secretary, FCC, WT Docket Nos. 07-250, 10-254, filed Nov. 12, 2015 (JCP). In this Report and Order we refer to TIA, CTIA, and CCA collectively as “Wireless Associations,” and we refer to HLAA, Telecommunications for the Deaf and Hard of Hearing, and the National Association of the Deaf collectively as “Consumer Groups.”

<sup>18</sup> *Id.* at 1.

<sup>19</sup> *Id.*

<sup>20</sup> *Id.* at 2.

<sup>21</sup> *Id.*

<sup>22</sup> *Id.*

to ensure that the process will include all stakeholders: at a minimum, consumer groups, independent research and technical advisors, wireless industry policy and technical representatives, hearing aid manufacturers and Commission representatives.<sup>23</sup>

14. The proposal provides that these new benchmarks should apply to manufacturers and service providers that offer six or more digital wireless handset models in an air interface, except that compliance dates for Tier I carriers and service providers other than Tier I carriers would be imposed six months and eighteen months, respectively, behind those for manufacturers, to account for the availability of handsets and inventory turn-over rates.<sup>24</sup> The proposal recommends that the existing *de minimis* exception continue to apply for manufacturers and service providers that offer three or fewer handset models in an air interface and that manufacturers and service providers that offer four or five digital wireless handset models in an air interface should ensure that at least two of those handsets models are compliant with the Commission's M and T rating requirements.<sup>25</sup> In addition, the proposal provides that these benchmarks should only be applicable if testing protocols are available for a particular air interface.<sup>26</sup>

15. On November 20, 2015, we issued a Notice of Proposed Rulemaking (*Notice*) in which we proposed to adopt the general deployment approach discussed in the JCP, including the staged benchmark approach and time frames, the Commission's assessment and determination of achievability, and the process for moving to a 100 percent compliance standard.<sup>27</sup> In addition to the new benchmarks, we sought comment on the proposed time frames and transition periods.<sup>28</sup> We asked whether the benchmarks are appropriate for all covered entities and handsets, and whether the new benchmarks would meet the needs of consumers while protecting innovation and competition.<sup>29</sup> We also asked whether manufacturers and service providers that offer four or five digital wireless handset models in an air interface should ensure that at least two of those handsets models are hearing aid-compatible.<sup>30</sup> In addition, we sought comment on other issues raised in the JCP and, more generally, on whether the

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<sup>23</sup> *Id.* at 2.

<sup>24</sup> *Id.* at n.1, n.2. The hearing aid compatibility rule defines Tier I carriers as Commercial Mobile Radio Service (CMRS) providers that offer service nationwide. See 47 CFR § 20.19(a)(3)(v); see also *Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems; Phase II Compliance Deadlines for Non-Nationwide Carriers*, CC Docket No. 94-102, Order to Stay, 17 FCC Rcd 14841, 14843 para. 7 (2002). We note that, in 2015, the Commission amended Section 20.19 to provide that, on or after January 1, 2018 for Tier I carriers and April 1, 2018 for service providers other than Tier I carriers, the hearing aid compatibility requirements of Section 20.19 apply to "providers of digital mobile service in the United States to the extent that they offer terrestrial mobile service that enables two-way real-time voice communications among members of the public or a substantial portion of the public, including both interconnected and non-interconnected VoIP services, and such service is provided over frequencies in the 698 MHz to 6 GHz bands." *Improvements to Benchmarks and Related Requirements Governing Hearing Aid-Compatible Mobile Handsets*, WT Docket No. 15-285, Fourth Report and Order and Notice of Proposed Rulemaking, 30 FCC Rcd 13845, 13891, Appx. B (2015) (*Fourth Report and Order and Notice*; or referencing *Fourth Report and Order* or *Notice* as appropriate); 47 CFR § 20.19(a)(1)(i) (2016). Accordingly, as of the dates specified in that provision, the term "service provider" in this Report and Order and in Section 20.19 as amended herein includes providers of digital mobile service as defined in Section 20.19(a)(1)(i). Further, while Tier I carriers are defined as providers of CMRS, the obligations will apply to such carriers for any service that they provide within the new scope.

<sup>25</sup> JCP at n.1, n.2.

<sup>26</sup> *Id.*

<sup>27</sup> See *Notice*, 30 FCC Rcd at 13877-78 para. 69.

<sup>28</sup> *Id.* at 13878 para. 71.

<sup>29</sup> *Id.* at 13878 para. 72.

<sup>30</sup> *Id.* at 13879 para. 73.

proposal is consistent with and warranted under Section 710 of the Communication Act.<sup>31</sup> Moreover, we sought comment on the technologies available for meeting compatibility requirements, including the minimum M3 and T3 requirements, and possible exceptions and waivers.<sup>32</sup> We sought comment on how to address legacy models and on ways to reduce regulatory burdens.<sup>33</sup> Finally, we solicited comment on alternatives to the JCP,<sup>34</sup> and the impact of the new benchmarks on innovation and U.S. product offerings.<sup>35</sup>

16. Comments on the *Notice* were due January 28, 2016 and replies were due February 12, 2016.<sup>36</sup> We received nine comments and six reply comments.<sup>37</sup> Commenters addressing the proposed new benchmarks uniformly support their adoption; this support included commenters representing service providers, handset and hearing aid manufacturers, and consumers.<sup>38</sup> Most commenters also support the transition periods proposed in the JCP.<sup>39</sup> Rural Wireless Association, Inc. (RWA), however, asserts that additional compliance time is necessary for service providers other than Tier I carriers due to their “lack of market clout and limited handset options,” and suggests a 24-month extension rather than the 18-month extension proposed in the JCP.<sup>40</sup>

17. On April 21, 2016 and July 29, 2016, the parties to the JCP filed *ex parte* letters supplementing their proposal and further addressing the proposed multi-stakeholder task force process.<sup>41</sup> The April Supplemental Filing states that the “task force is intended to bring together all relevant stakeholders with the purpose of identifying questions for exploration, collecting concrete data and information about the technical and market conditions involving wireless handsets and the landscape of hearing improvement technology.”<sup>42</sup> According to the letter, the task force will issue a report to the Commission helping to inform the Commission on whether 100 percent hearing aid compatibility is achievable.<sup>43</sup> The letter states that the task force will be formed and will operate as follows:

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<sup>31</sup> *Id.* at 13880-81 paras. 78, 80-81.

<sup>32</sup> *Id.* at 13881-83 paras. 82-87.

<sup>33</sup> *Id.* at 13883-85 paras. 88-95.

<sup>34</sup> *Id.* at 13885 para. 96.

<sup>35</sup> *Id.* at 13880 para. 78.

<sup>36</sup> *Fourteen-Day Extension of Time to File Comments and Reply Comments on Notice of Proposed Rulemaking Regarding Hearing Aid Compatibility Benchmarks*, WT Docket No. 15-285, Public Notice, 31 FCC Rcd 94 (2016).

<sup>37</sup> *See* App. A.

<sup>38</sup> *See, e.g.*, ACI Alliance Comments at 2; Blooston Comments at 64; Consumer Groups Comments at 1, 9-10; HIA Comments at 5; Wireless Associations Comments at 3-4; T-Mobile Reply Comments at 2-3.

<sup>39</sup> Consumer Groups Comments at 1, 9-10; Wireless Associations Comments at 6.

<sup>40</sup> RWA Comments at 6-7.

<sup>41</sup> *See* Letter from James Reid, Senior Vice President, Government Affairs, TIA, Scott Bergmann, Vice President, Regulatory Affairs, CTIA, Rebecca Murphy Thompson, EVP & General Counsel, CCA, Barbara Kelley, Executive Director, HLAA, Claude Stout, Executive Director, Telecommunications for the Deaf and Hard of Hearing, and Howard A. Rosenblum, Chief Executive Officer, National Association of the Deaf, to Marlene H. Dortch, Secretary, FCC, WT Docket Nos. 15-285, 07-250, filed Apr. 21, 2016 (April Supplemental Filing); Letter from Rebecca Murphy Thompson, EVP & General Counsel, CCA, Matthew Gerst, Director, Regulatory Affairs, CTIA, Linda Kozma-Spytek, Co-Director, Rehabilitation Engineering, Research Center on Technology for the Deaf and Hard of Hearing, Gallaudet University, Lise Hamlin, Director of Public Policy, HLAA, and Avonne Bell, Sr. Manager, Government Affairs, TIA, to Marlene H. Dortch, Secretary, FCC, WT Docket Nos. 15-285, 07-250, filed July 29, 2016 (July Supplemental Filing).

<sup>42</sup> April Supplemental Filing at 2.

<sup>43</sup> *Id.*

- The parties will “work together to determine the appropriate task force participants within two years of the effective date of” the revised benchmarks and that “the participants should include representatives of consumers who use hearing aid devices, research and technical advisors, wireless industry policy and technical representatives, and hearing aid manufacturers.”
  - “The task force will use its best efforts to reach consensus and will reflect the views of the majority of its participants while also providing an opportunity for any minority views to be expressed.”
  - Task force participants will determine leadership, convene meetings, and expect to file the report in the open docket for public comment and Commission consideration.<sup>44</sup>
18. The letter provides that the task force will utilize the following timeline:
- Within the first four years after the effective date of the revised benchmarks, “the multi-stakeholder group should be formed.”
  - “The task force should convene at least twice annually, or more frequently if needed, prior to the start of year four to begin to develop questions for consideration.”
  - The task force will “take all reasonable steps to file its report with the Commission by no later than the end of year six” and, at that point, disband.<sup>45</sup>
19. Finally, the letter states that the task force will consider the following issues:
- The definition of hearing aid compatibility “for purposes of a wireless handset’s compliance with the Commission’s rules.”
  - Whether 100 percent compliance could be satisfied through “innovative approaches, including standards or technology that are not reflected in the current applicable ANSI standards.”
  - How to ensure that the hearing aid compatibility rating system is effectively “helping consumers who use hearing aid devices.”
  - “The implementation process and extended compliance time frame for nationwide and non-nationwide service providers.”<sup>46</sup>

### III. ADOPTION OF ENHANCED BENCHMARKS

20. As proposed in the JCP and the *Notice*, in place of the current percentage and minimum number handset deployment obligations, we adopt the 66 and 85 percent benchmarks for manufacturers and service providers who offer six or more handset models per air interface. Manufacturers must comply with these benchmarks following a transition period of two and five years, respectively, running from the effective date of the new rules. Each of these transition periods is further extended by six months for Tier I carriers and 18 months for service providers other than Tier I carriers.<sup>47</sup> To satisfy these

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<sup>44</sup> *Id.* at 2-3.

<sup>45</sup> *Id.* at 3-4.

<sup>46</sup> *Id.* at 4-6.

<sup>47</sup> *See supra* note 24. Once the relevant transition periods are over, these new benchmarks will replace the current obligations completely. Thus, for example, under the current obligations, service providers may meet their obligations by offering either a specified fraction of compatible handsets or a specific number, whichever is lower. *See* 47 CFR §§ 20.19(c)(2), (c)(3). Once the relevant transition period for the new 66 percent benchmark has passed, service providers must meet the new fractional benchmark and will not have the alternative option of offering a specific number of compatible handsets.

new benchmarks, handset models must meet both a rating of M3 or higher for reduced RF interference in acoustic coupling mode and T3 or higher for inductive coupling capability. We will maintain our current rounding rules, which means that our rules will continue to allow manufacturers to round their fractional deployment obligations down and our rules will continue to require service providers to round their fractional deployment obligations up.

21. Consistent with the JCP and the *Notice*, we will also maintain the current *de minimis* exception that applies to manufacturers and service providers that offer three or fewer handset models in an air interface. In addition, as proposed in the *Notice* and the JCP, we amend the *de minimis* rule to additionally provide that when the new benchmarks become applicable, a more limited obligation will apply to manufacturers and service providers that offer 4 or 5 handsets. Specifically, we adopt, in most respects, the amendment proposed in the *Notice* and the JCP, and provide that (1) manufacturers and service providers that offer four wireless handset models in an air interface must ensure that at least two of those handset models are compliant with our M and T rating requirements; and (2) manufacturers who offer five wireless handset models in an air interface must similarly offer at least two that are compliant with our M and T rating requirements.<sup>48</sup>

22. We modify the JCP's proposed modification to the *de minimis* rule with regard to service providers that offer five wireless handset models in an air interface. Under the JCP, such service providers, like manufacturers offering that number of handset models, would in the future only have to offer two handset models that are compliant with our M and T rating requirements.<sup>49</sup> Unlike in the cases discussed above, however, adoption of this requirement would result in a reduction of the obligations that such service providers have under the current rules. Our current acoustic coupling deployment obligation for service providers offering five handset models in an air interface is 50 percent, or 2.5 handset models.<sup>50</sup> Unlike manufacturers, service providers are required to round up when calculating their fractional deployment obligations and, therefore, under our existing rules the minimum number of models rated M3 or better for service providers offering five handset models in an air interface is three.<sup>51</sup> No commenter argued that our current rounding rules should be revised, and considering the broader context—a transition toward universal handset compliance—we are unwilling to reduce the existing obligation.<sup>52</sup> Further, the most recent submission from the parties to the JCP state their understanding that service providers offering five handset models will be required to offer three compatible handsets and raise no objection.<sup>53</sup> Therefore, under the expanded *de minimis* exception, service providers who offer five handset models will have to ensure that at least three meet our M and T rating requirements. While this decision results in an increase in the number of T-rated handsets that a service provider who offers five handset models in an air interface currently must offer under our existing rules (*i.e.*, from two to three), it is consistent with the JCP's proposal that handsets offered to satisfy the new benchmarks meet

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<sup>48</sup> *Notice*, 30 FCC Rcd at 13879 para. 73.

<sup>49</sup> *Id.*

<sup>50</sup> 47 CFR §§ 20.19(c)(2), (c)(3).

<sup>51</sup> *See, e.g., First Report and Order*, 23 FCC Rcd at 3418-19 para. 35 (providing that “Tier I carriers . . . will have to meet an M3 rating (or higher) for the lesser of 50 percent of their handset models per air interface (rounding fractions up) or a specific number of handset models” and that “[s]ervice providers not in Tier I will be subject to the same requirements . . .”).

<sup>52</sup> In the July Supplemental Filing, the parties to the JCP argue that fractional obligations for both manufacturers and service providers should be rounded down, but they make this proposal solely on the grounds that it is “consistent with current requirements.” July Supplemental Filing at 2. We agree that the rounding rules should remain unchanged but, as discussed above, the rules require manufacturers to round down and service providers to round up.

<sup>53</sup> *See* July Supplemental Filing at 2.

both an M3 and T3 rating (or better). It is also consistent with a general goal of moving toward 100 percent hearing aid compatibility.

23. The expanded *de minimis* rule for manufacturers and service providers offering four or five handset models in an air interface will take effect for manufacturers, Tier I carriers, and service providers other than Tier I carriers at the same time in each case as the new 66 percent benchmark (*e.g.*, it will take effect for manufacturers in two years, and for Tier I carriers in two years and six months). This implementation schedule will run from the effective date of the new rules. For enforcement purposes, however, we will review compliance with the new benchmarks and *de minimis* requirements starting the first day of the month after the new benchmarks become effective. This approach will eliminate any partial month compliance issues that may arise with the new requirements.

24. We conclude that the changes we adopt today satisfy our statutory obligations. Section 710(e) requires the Commission to “consider costs and benefits to all telephone users, including persons with and without hearing loss,” and to “ensure that regulations adopted to implement [the Hearing Aid Compatibility Act] encourage the use of currently available technology and do not discourage or impair the development of improved technology.”<sup>54</sup> Section 710(e) further directs that the Commission should use appropriate timetables and benchmarks to the extent necessary due to technical feasibility or to ensure marketability or availability of new technologies to users.<sup>55</sup> As discussed below, considering the costs and benefits to all end users, including persons with and without hearing loss and the impact on the use and development of technology, we find the new benchmarks and implementation schedule to be appropriate, reasonable, and technically feasible, and therefore in the public interest.<sup>56</sup> We further find, given the acceptance of these benchmarks by both industry and consumer stakeholders, there does not appear to be any suggestion or evidence that they would impede the marketability and availability of new technologies to users.

25. As reflected in the wide and unanimous support in the record for revising our hearing aid compatibility requirements as described above, these changes strike an appropriate balance between the interests of handset manufacturers, large and small service providers, and consumers with hearing loss. Our actions today will provide significant benefits by expanding access to hearing aid-compatible handsets, while preserving the flexibility that allows competition and innovation in devices to flourish.<sup>57</sup> Consumers with hearing loss, including those who rely on hearing aids or cochlear implants, will have more compatible handsets from which to choose when purchasing new phones, and manufacturers and service providers will have the time they need to meet our new benchmark requirements. This approach properly accounts for the realities of technology constraints as well as the needs of those with hearing loss. Further, no commenting party has argued that the costs of complying with the new benchmarks and their related implementation provisions would be detrimental to any consumers, with or without hearing loss. In fact, commenters broadly support the new benchmarks, timelines, additional implementation periods, and related provisions.<sup>58</sup>

26. In addition to benefitting hearing aid users generally, raising the benchmarks to increase the percentage of handset models with at least a T3 rating will be particularly beneficial to wireless users in the deaf and hard of hearing community who rely on telecoil-equipped hearing aids and cochlear

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<sup>54</sup> 47 U.S.C. § 610(e).

<sup>55</sup> *Id.* The Section 710(b)(2)(b) four-part test for lifting an exemption does not apply here where the Commission is assessing benchmarks for services and equipment already within the scope of Section 20.19 of the rules. *See* 47 U.S.C. § 610(b)(2)(B).

<sup>56</sup> 47 U.S.C. § 610(e).

<sup>57</sup> *See* Wireless Associations Comments at 3-4.

<sup>58</sup> *See, e.g.*, ACI Alliance Comments at 2; Chambers Reply Comments at 1; Consumer Groups Comments at 1, 9-10; HIA Comments at 5; Wireless Associations Comments at 3-4; T-Mobile Reply Comments at 2-3.

implants.<sup>59</sup> Further, given that these benchmarks were agreed to by the parties to the JCP, the stakeholders have already agreed that the associated costs of meeting hearing aid compatibility requirements for a higher percentage of models are reasonable.<sup>60</sup> In light of the support for these changes from both consumers and the industries that would bear the costs, and given the lack of any significant related opposition or evidence to the contrary, we find it reasonable, consistent with the mandate of Section 710(e), to conclude that the benefits of adopting these benchmarks will exceed their costs.

27. Further, we find that the transition periods we adopt today are reasonable and are in the public interest. We note in particular that the JCP stakeholders crafted and proposed them, signaling broad support for these timelines. Moreover, the Commission has previously determined that two years is an appropriate period to accommodate the typical handset industry product cycle.<sup>61</sup> We believe that the transition periods identified in the JCP provide adequate time for handset manufacturers and service providers to adjust handset portfolios to ensure compliance with the new benchmarks, and we therefore adopt them.

28. While RWA argues that the compliance deadline for small service providers should be 24 months beyond the end of the two and five year transition periods for manufacturers, we find that the additional 18 months proposed in the JCP and the *Notice* is sufficient to address their concerns.<sup>62</sup> In the *Fourth Report and Order*, we allowed such providers only an additional three months after the compliance date for manufacturers and Tier I carriers to meet new deployment benchmarks and related requirements.<sup>63</sup> In prior hearing aid compatibility transitions, the Commission has consistently allowed service providers that are not Tier I carriers no more than three months' time beyond the transition period provided to Tier I carriers.<sup>64</sup> Here, we are allowing service providers other than Tier I carriers an additional 12 months beyond the compliance date for Tier I carriers before they must be in compliance, and 18 months after manufacturers have to meet the new benchmarks. Therefore, there should be sufficient hearing aid-compatible handsets available to small service providers to integrate into their product lines. We also note that other commenters—including commenters that represent small wireless service providers—support the transition period for small providers proposed in the JCP and the *Notice*.<sup>65</sup> Taking into account that the latest hearing aid compatibility reports show a high rate of compliance for such providers,<sup>66</sup> but also considering the significant increase we are adopting in the applicable benchmarks, we believe the agreed upon transition period for service providers other than Tier I carriers is reasonable.

29. In addition, we find it in the public interest to continue to use the M3 and T3 ratings as the minimum that covered handsets must meet. We decline to adopt ACI Alliance's proposal to put in place a benchmark or other mechanism that would require manufacturers to offer M4 and T4 rated handsets.<sup>67</sup> We believe this issue is better considered in the ANSI standards setting process or the

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<sup>59</sup> See, e.g., ACI Alliance Comments at 3 (noting that many recipients of cochlear implants rely on built-in telecoils “to provide satisfactory signal-to-noise ratio on their landline and mobile telephones”); see also *First Report and Order*, 23 FCC Rcd at 3420-21 para. 38.

<sup>60</sup> See Consumer Groups Comments at 1, 9-10; Wireless Associations Comments at 3-4.

<sup>61</sup> *Fourth Report and Order*, 30 FCC Rcd at 13871 para. 50.

<sup>62</sup> RWA Comments at 6-7.

<sup>63</sup> *Fourth Report and Order*, 30 FCC Rcd at 13871 para. 51.

<sup>64</sup> See, e.g., *Third Report and Order*, 27 FCC Rcd at 3741-42 para. 23 (providing two-year transition to manufacturers and Tier I carriers and an additional three months to other service providers).

<sup>65</sup> See, e.g., Consumer Groups Comments at 1, 9-10; Wireless Associations Comments at 6.

<sup>66</sup> See FCC, Hearing Aid Compatibility Status Reporting, <http://wireless.fcc.gov/hac/index.htm?job=home>.

<sup>67</sup> ACI Alliance Comments at 3.

ongoing stakeholder consensus process.<sup>68</sup> Further, we disagree with ACI Alliance's assertion that the number of M4 and T4 rated handsets has been decreasing.<sup>69</sup> In fact, manufacturers' compliance filings show the opposite. From July 2013 to June 2015, the number of M4 and T4 rated handsets produced by manufacturers rose from a total of 33 percent of all handsets produced to 39 percent.<sup>70</sup> In light of this increase, it does not appear necessary to revise this component of the hearing aid compatibility requirements at this time.

30. As proposed by the JCP and the *Notice*, meeting the new benchmarks of 66 and 85 percent will require offering handset models that have *both* an M3 rating (or higher) and a T3 rating (or higher). The current rules allow manufacturers and service providers to meet their M rating and T rating benchmarks with handset models that meet one rating but not the other.<sup>71</sup> As a practical matter, however, all T3-rated handsets already meet the M3 rating standard as well.<sup>72</sup> None of the comments we received indicate that requiring manufacturers and service providers to meet their benchmarks only with handsets that meet both standards is technically infeasible or will affect the marketability of these handsets in the United States. Our approach encourages the use of currently available technology by relying on existing M3 and T3 coupling standards. Further, handsets that are hearing aid-compatible in either acoustic or telecoil mode will further benefit consumers with hearing loss by reducing the need for consumers to research whether a handset works only in one mode or the other. Moreover, our approach will not discourage or impair the development of improved technology. We note that wireless technology has continued to evolve rapidly over the years that the hearing aid compatibility rules have been in effect. We anticipate that such innovation will continue with these revised benchmarks in place.

31. The JCP proposed that the new benchmarks apply only "if testing protocols are available for a particular interface."<sup>73</sup> We note that, as with the current deployment requirements and consistent with past Commission precedent, manufacturers and service providers will be required to meet the new benchmarks only for technologies operating in the frequency bands covered by the approved technical standards.<sup>74</sup> Further, these approved technical standards specify testing protocols for determining M and

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<sup>68</sup> See ANSI ASC C63<sup>®</sup> Comments at 3-4; Consumer Groups Comments at 5.

<sup>69</sup> ACI Alliance Comments at 3.

<sup>70</sup> From July 2013 to June 2014, 148 out of 452 (or 33 percent) of handset models produced were rated M4 or T4 based on the July 2014 device manufacturers' reports. See FCC, Hearing Aid Compatibility Status Reporting Archives: Device Manufacturers, [http://wireless.fcc.gov/hac/index.htm?job=rpt\\_dm\\_a](http://wireless.fcc.gov/hac/index.htm?job=rpt_dm_a). From July 2014 to June 2015, 165 out of 422 (or 39 percent) of handset models produced were rated M4 or T4 based on the July 2015 device manufacturers' reports. See FCC, Hearing Aid Compatibility Reports: Device Manufacturers, [http://wireless.fcc.gov/hac/index.htm?job=reports\\_dm](http://wireless.fcc.gov/hac/index.htm?job=reports_dm).

<sup>71</sup> See 47 CFR §§ 20.19(c)(1), (d)(1). We note that the most recent version of the approved technical standard, ANSI C63.19-2011, provides that a handset model must have the minimum M-rating for acoustic coupling capability in order to receive a T-rating for inductive coupling capability. See ANSI Accredited Standards Committee C63<sup>®</sup> – Electromagnetic Compatibility, *American National Standard Methods of Measurement of Compatibility between Wireless Communications Devices and Hearing Aids*, ANSI C63.19-2011 at § 8.3.3, Relationship of M and T ratings (May 27, 2011) ("If the WD achieves an acceptable category rating [for audio coupling mode], as determined by the appropriate regulating authority, it becomes a candidate for the T designation"). As a result, it is already the case that all handsets certified with a T3 rating or better also have at least an M3 rating for acoustic coupling. The technical standard does not, however, require the reverse—that a model must be T-rated in order to receive an M-rating, and as a result, it is not uncommon for manufacturers and service providers to offer handsets that have an M3 or M4 rating, but do not have a T-rating for inductive coupling.

<sup>72</sup> See FCC, July 2012 Device Manufacturer HAC Filings, [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-316708A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-316708A1.pdf).

<sup>73</sup> See *Notice*, 30 FCC Rcd at 13877 para. 68.

<sup>74</sup> See *supra* note 6; 47 CFR § 20.19(a). See also *Fourth Report and Order*, 30 FCC Rcd at 13855 para. 18 ("To ensure testability under the current approved technical standard, we will require compliance only to the extent these

(continued....)

T ratings for mobile devices operating within the frequency range covered by the standards. Accordingly, we do not agree that testing protocols are unavailable for new technologies within the scope of the standards. We acknowledge, however, that, there may be cases of new technologies for which additional guidance or clarification on the application of the procedures may be helpful, and that temporary relief may be appropriate pending such guidance. In the past, the Commission has considered such issues on a case-by-case basis as they are raised by parties, and we find no reason to depart from this approach, given that there is no indication that this approach has not been successful in addressing any industry concerns.<sup>75</sup> Accordingly, to the extent that parties request further guidance on testing procedures in connection with a particular new technology deployed in those bands, the Commission will, as it has in the past, address such requests on a case-by-case basis and provide appropriate guidance, or tailored accommodations pending guidance from the Commission or appropriate standards-setting bodies, as needed. We would not, however, want the development of such testing protocols to delay hearing aid compatibility for new air interfaces or equipment.<sup>76</sup> Therefore, we expect the timely development of such testing protocols, and caution against unnecessary delays.

32. We also find that it is in the public interest to retain the existing *de minimis* exception for manufacturers and service providers that offer three handset models or less, and to expand it to manufacturers and service providers that offer four or five digital wireless handset models in an air interface. No commenter objects to retaining or expanding the current *de minimis* rule while the new benchmarks of 66 and 85 percent are in effect.<sup>77</sup> Our expansion of the *de minimis* rule is generally consistent with the JCP and will reduce the burden on small and new industry participants. As discussed above, however, we will require service providers who offer five handset models in an air interface to ensure that at least three meet our M and T rating requirements.<sup>78</sup> We believe the *de minimis* rule as revised today appropriately balances the goal of facilitating widespread deployment of hearing aid-compatible devices to consumers while reducing burdens on small and new industry participants.

33. We find it in the public interest to maintain our current rounding rules for fractional deployment obligations. Currently, when calculating the total number of handset models that must be offered over an air interface results in a fractional deployment obligation, manufacturers may round this

(Continued from previous page) \_\_\_\_\_  
handsets are used in connection with voice communication services in bands covered by Commission-approved standards for hearing aid compatibility.”).

<sup>75</sup> See *Third Report and Order*, 27 FCC Rcd at 3739-40 para. 17 (providing accommodation for the testing of VoLTE for inductive coupling); Office of Engineering and Technology, Laboratory Division, *Guidance for Performing T-Coil tests for Air Interfaces Supporting Voice over IP (e.g., LTE and Wi-Fi) to support CMRS based Telephone Services* (Oct. 31, 2013), <https://apps.fcc.gov/kdb/GetAttachment.html?id=unTjPJBfcYUxDO2czc1S8g%3D%3D> (extending the same to Wi-Fi Calling); *Fourth Report and Order*, 30 FCC Rcd at 13869 para. 45 (establishing a requirement to test and rate software applications but providing a period of time during which manufacturers may certify compatibility of handsets based on disclosure rather than testing to allow standards process to finalize all necessary testing guidance).

<sup>76</sup> See April Supplemental Filing at 5.

<sup>77</sup> Blooston Comments at 3; Consumer Groups Comments at 7; NTCA Comments at 2; Wireless Associations Comments at 5-6. We note that there is disagreement in the record on whether, in the event the Commission determines to require all future handset models to be hearing aid-compatible, it should also sunset the *de minimis* exception. See ASTAC Comments at 2. As discussed below, because we are deferring a decision on the achievability of a 100 percent compatibility requirement, we do not address at this time the changes, if any, that may be necessary or appropriate in the event we adopt such a requirement.

<sup>78</sup> See *supra* para. 222.

number down, but service providers must round this number up.<sup>79</sup> We see no reason to change this current practice.<sup>80</sup>

#### IV. ADVANCEMENT OF A 100 PERCENT COMPATIBILITY DEPLOYMENT BENCHMARK

34. By no later than 2024, we intend to make a determination regarding the Commission's proposed requirement that 100 percent of covered handsets be hearing aid-compatible. In consideration of the fact that both the hearing aid and mobile device markets will evolve during the time before we make this determination, we will keep this docket open for all relevant submissions on proposals and issues within the scope of our underlying *Notice*, and the related matters discussed here and in the April Supplemental Filing and July Supplemental Filing. We anticipate that we will provide additional notice of wireless hearing aid compatibility proposals as they arise and become appropriate for more specific comment by manufacturers, service providers, consumer groups, and members of the public. We believe this open process will afford all interested parties the same flexibility with which the Commission and stakeholders worked in the past to achieve consensus and establish the current hearing aid compatibility benchmarks and related requirements.<sup>81</sup>

35. In the discussion below, we set forth a process and timeline, consistent with the proposals in the JCP and the supplemental filings, for stakeholders to submit information individually or collectively, including from any independent task force or consensus group that they create. We also identify for specific consideration additional issues raised in the April Supplemental Filing and the *Notice*.<sup>82</sup> Although we are making a decision to leave many issues open and we defer action on any final rule codifying a possible 100 percent compatibility deployment benchmark,<sup>83</sup> we set a pathway of milestones for submissions over the next several years that will ensure a resolution of this proceeding within the timeframe agreed to by the parties to the JCP and consistent with our intent that the Commission revisit this issue. These submissions are purely voluntary, however; we do not require any party to make them, or to make them in the timeframes discussed, and will take no enforcement or other action against any party for failure to file. Further, in making these submissions, parties are not expected to produce any confidential, proprietary, or work product documents, nor, prior to the final report on achievability, do we ask parties to provide more than summary descriptions of activities or any

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<sup>79</sup> 47 CFR §§ 20.19(c)(1), (c)(3), (d)(1), (d)(3); *see also First Report and Order*, 23 FCC Rcd at 3418-19 para. 35.

<sup>80</sup> We note that the Wireless Associations indicate in their comments that service providers, like manufacturers, round these figures down under our current rules. Wireless Associations Comments at 5 n.15. Under our rules, service providers must round up when calculating their fractional deployment obligations. *See First Report and Order*, 23 FCC Rcd at 3418-19 para. 35 (“Tier I carriers . . . will have to meet an M3 rating (or higher) for the lesser of 50 percent of their handset models per air interface (rounding fractions up) or a specific number of handset models . . .”). Thus, we do not change our current practice on the basis of this comment.

<sup>81</sup> *See generally* Supplemental Comments of ATIS, WT Docket No. 06-203 (filed June 25, 2007) (consensus plan on Section 20.19 submitted by the ATIS working group); JCP (consensus proposal setting forth the two new deployment benchmarks of 66 and 85 percent); *see also First Report and Order*, 23 FCC Rcd at 3432-36 paras. 65, 68, 73 (inviting further submissions and leaving the record open so that parties may develop positions on certain outstanding issues).

<sup>82</sup> *See infra* paras. 42-47.

<sup>83</sup> In the *Notice*, we proposed to adopt the process discussed in the JCP for moving to a 100 percent compliance standard. *Notice*, 30 FCC Rcd at 13877 para. 69. By leaving this docket open, we invite further submissions under our general notice-and-comment rulemaking authority on the outstanding issues from the *Notice*, including most notably whether 100 percent compliance is achievable. To the extent the Commission determines in the future that another more formal approach is warranted, *see, e.g.*, JCP at 3 (describing approaches that would be subject to the Federal Advisory Committee Act), it can take any appropriate actions at that point in time if warranted. In addition, to the extent certain questions or matters merit specific attention prior to 2024, specific time periods can be set for interested parties to submit additional comments beyond the submissions that we invite in this proceeding.

information or data being collected.<sup>84</sup> In addition, we do not expect any submissions to be filed until an independent task force or other consensus group to implement the JCP's commitments is created, and we primarily expect these submissions to be filed by or on behalf of such a group.<sup>85</sup> We welcome submissions from other parties, however, as well as submissions prior to the creation of the task force to the extent parties find it appropriate, particularly if they experience unanticipated difficulties in convening such a group.

#### A. Open Docket for Supplemental Submissions

36. In the July Supplemental Filing, the parties to the JCP discussed "how the Commission can be kept apprised of the status of the Task force's progress once the Task Force is established."<sup>86</sup> Recognizing the need for transparency through the process, they "acknowledge that an annual report once the Task Force is established could satisfy the Commission's interest in the Task Force's activities."<sup>87</sup> They further recommend that, "[r]ather than prescribe the specific contents of any additional reports. . . the Commission should permit the Task Force the flexibility to work together to determine the best way to communicate the status of the determination process to the FCC and the public."<sup>88</sup> The consumer group signatories further suggest that, "so long as the language is not proscriptive, they would not object to guidance from the Commission on the kind of information that could be included in the yearly reports."<sup>89</sup>

37. Consistent with these proposals, and to allow stakeholders to reach further consensus on the various proposals set forth in the JCP and raised in the Commission's subsequent *Notice*,<sup>90</sup> we ask interested parties to file additional comments, reports, and other submissions in this docket in accordance with the timeline detailed below.<sup>91</sup> We will use this open docket to develop a record on whether and when a regime under which all wireless handsets are required to be hearing aid-compatible is "achievable."<sup>92</sup> We will also use this docket to collect additional points of consensus on the question of a 100 percent wireless hearing aid compatibility deployment requirement, alternative hearing aid compatibility standards, and the other issues raised in our *Notice*.<sup>93</sup>

38. We find that maintaining an open docket is the best method to reach an outcome that reflects a consensus among all interested parties.<sup>94</sup> Although our open docket will permit broad participation among many interested participants over the next several years, we expect that parties will

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<sup>84</sup> Should parties want to file such documents, however, they may seek confidential treatment under Section 0.459 of the Commission's rules. *See* 47 CFR 0.459.

<sup>85</sup> For example, if no task force is established until year three, we do not expect that submissions will be filed at the end of years one or two.

<sup>86</sup> July Supplemental Filing at 3.

<sup>87</sup> *Id.*

<sup>88</sup> *Id.*

<sup>89</sup> *Id.*

<sup>90</sup> *See generally* JCP; *Notice*.

<sup>91</sup> *See* 47 CFR § 1.1206; *Notice*, 30 FCC Rcd at 13886-87 para. 102 (procedural matters for parties filing submissions); *see also infra* paras. 40-41 (discussing a timeline for submissions).

<sup>92</sup> JCP at 2.

<sup>93</sup> The open docket will allow stakeholders to make submissions on topics such as the necessity of the "refresh" rule under the increased benchmarks or a 100 percent compatibility requirement.

<sup>94</sup> *See, e.g.*, April Supplemental Filing at 2 (requesting that the Commission's next steps "should be considered within the scope of these proceedings"); *see also id.* at 3 (stating that parties to the JCP would expect a report to be filed "in the above-captioned dockets for public comment and the Commission's consideration").

continue to work together to establish whatever task force and/or working groups are necessary to submit consensus filings.<sup>95</sup> We therefore do not expect that every party affected by the outstanding issues in this proceeding will file reports or other submissions, and anticipate that such filings will most likely be filed solely by the task force or other groups that are established.<sup>96</sup> Stakeholders themselves are best positioned to work collectively to obtain and report the data necessary to craft a regime that ensures full hearing aid compatibility while protecting market incentives to innovate and invest. We encourage the formation of groups that represent the broadest number of participants, including representatives of consumers who use hearing aid devices, research and technical advisors, wireless industry policy and technical representatives, and hearing aid manufacturers.

39. With the assumption that interested parties will convene a task force to make submissions in this docket, we note that such a group would be established by the stakeholders themselves and would operate separate from the Commission. For example, interested parties seeking to form consensus groups would need to establish their own membership and leadership structures.<sup>97</sup> The parties to the JCP indicate in their April Supplemental Filing that a “task force should convene at least twice annually, or more frequently if needed.”<sup>98</sup> We emphasize that on matters such as these, interested parties should coordinate and manage their affairs in whatever fashion and manner they desire.<sup>99</sup> Although we anticipate that any such task force group will use its best efforts to reach compromises that result in consensus positions, we realize that it may not be possible in all cases to achieve agreement among all participants or on all issues. Accordingly, by maintaining an open docket for submissions from all interested parties, we also provide an opportunity for any individual, as well as any minority, positions to be presented to the Commission during the course of this proceeding.

#### **B. Timeline for Submissions**

40. We ask interested parties to make submissions in accordance with the timeframes outlined below.<sup>100</sup> These timeframes generally correspond to the timeline in the April Supplemental Filing, which describes the steps leading to a report helping to inform the Commission whether 100 percent hearing aid compatibility is “achievable considering technical and market conditions.”<sup>101</sup> For example, the April Supplemental Filing states that the signatories will determine appropriate task force participants “within two years, but no later than the start of year four.”<sup>102</sup> The filing states that the parties will develop questions and explore the scope of the issues prior to year four, and that the official start of the achievability determination process will begin in year four.<sup>103</sup> It also states that the task force will take all reasonable steps to file a report with the Commission by no later than the end of year six and, at that point, disband.<sup>104</sup> The proposed submissions described below are intended to encourage transparency

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<sup>95</sup> See, e.g., *id.* at 2-3 (proposal by parties to the JCP to create their own multi-stakeholder task force).

<sup>96</sup> We also note, however, that all interested parties are welcome to file submissions.

<sup>97</sup> See, e.g., *id.* at 2.

<sup>98</sup> *Id.* at 3.

<sup>99</sup> As the April Supplemental Filing acknowledges, parties would have “the right to modify and refine the [] terms [of the JCP] and to address other issues through further dialogue and collaboration where possible.” *Id.* at 2 n.4 (quoting the JCP).

<sup>100</sup> See *id.* at 3-4. Interested parties are also free of course to make submissions at any time in the open docket.

<sup>101</sup> *Id.* at 2.

<sup>102</sup> *Id.* at 3.

<sup>103</sup> *Id.* at 3.

<sup>104</sup> *Id.* at 4.

and to facilitate a collaborative process among hearing aid manufacturers, digital wireless handset manufacturers, consumer groups representing those with hearing loss, and wireless service providers.<sup>105</sup>

41. We clarify that the submissions described below are intended to be illustrative and that it will be up to any task force or consensus group to determine the best means of apprising the Commission of its activities. Guided by the additional data, information, and reports we expect to receive, our intent is for the Commission to make a final determination in this proceeding by no later than 2024. We expect that interested parties will work independently and collectively to obtain valuable information and assist the Commission's ultimate achievability determination by making submissions as follows:<sup>106</sup>

Stakeholder Participation:

- *By December 31, 2017 (end of Year 1) –*
  - report on outreach efforts by or to relevant stakeholders to gain commitments to participate in a consensus group
  - report on the formation of any stakeholder consensus group(s), including membership, leadership, and operations
- *By December 31, 2018 (end of Year 2) –*
  - report on outreach efforts by or to relevant stakeholders to gain commitments to participate in a consensus group
  - report on the formation of any stakeholder consensus group(s), including membership, leadership, and operations

Consensus Issues and Data:

- *By December 31, 2019 (end of Year 3) –*
  - report on any meetings, operations, and accomplishments to date of any stakeholder consensus group(s)
  - report on the questions and scope of hearing aid compatibility issues to be evaluated by any stakeholder consensus group(s)
  - report on any information and data planned to be collected by any stakeholder consensus group(s)
  - report on any developments regarding the matters identified above under Stakeholder Participation (if applicable)
- *By December 31, 2020 (end of Year 4) –*
  - report on any meetings, operations, and accomplishments to date of any stakeholder consensus group(s)
  - report on the information and data collected over Year 4 on those hearing aid compatibility issues being evaluated by any stakeholder consensus group(s)
- *By December 31, 2021 (end of Year 5) –*

<sup>105</sup> We anticipate that interested parties will make submissions based on the timetable below, but stakeholders should not defer their efforts or consideration of certain issues simply because they are described later in the timetable.

<sup>106</sup> Because the “stakeholder participation” and “consensus issues” milestones are targets covering the next several years, interested parties are free to make relevant submission sooner or later, as appropriate, than the actual dates in this table. We anticipate releasing Public Notices in this docket as appropriate in the future in order to provide additional guidance to interested parties.

- report on any meetings, operations, and accomplishments to date of any stakeholder consensus group(s)
- report on the information and data collected over Year 5 on those hearing aid compatibility issues being evaluated by any stakeholder consensus group(s)

Determination and Report:

- *By December 31, 2022 (end of Year 6) –*
  - report on any meetings, operations, and accomplishments to date of any stakeholder consensus group(s)
  - report on the information and data collected over Years 4 and 5 on those hearing aid compatibility issues being evaluated by any stakeholder consensus group(s)
  - submit final report on the achievability of a 100 percent hearing aid compatibility deployment benchmark and on other hearing aid compatibility issues being evaluated by any stakeholder consensus group(s)

**C. Issues for Consensus**

42. Although we have decided to generally leave matters open and defer action until a future proceeding, we expect stakeholders and other interested parties to use their best efforts to reach consensus on the remaining issues and proposals set forth in the JCP filed on November 12, 2015 and raised in the Commission's subsequent *Notice*.<sup>107</sup> We encourage interested parties to address four issues in particular: (1) whether 100 percent compatibility is achievable, with any analysis framed under the standard articulated in Section 710(e) of the Act, as appropriate; (2) how a 100 percent deployment benchmark could rely in part or in whole on alternative hearing aid compatibility technologies, bearing in mind the importance of ensuring interoperability between hearing aids and alternative technologies; (3) whether service providers should be able to legally rely on information in the Accessibility Clearinghouse in connection with meeting applicable benchmarks; and (4) whether the Commission should establish a fixed period of time or shot clock for the resolution of petitions for waiver of the hearing aid compatibility requirements. We further discuss these issues below in the context of the record that has developed to date.

43. Our ultimate approach on the outstanding issues from the JCP and the subsequent *Notice* depends in many cases on the outcome of the achievability determination. Accordingly, in these cases, we plan to defer specific action on final rules regarding compliance processes,<sup>108</sup> legacy models,<sup>109</sup> burden reduction,<sup>110</sup> the appropriate transition period for any new deployment requirements we adopt,<sup>111</sup> and other

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<sup>107</sup> See JCP; *Notice*, 30 FCC Rcd at 13872-85 paras. 54-96. In this Report and Order, we only codify new requirements regarding the *Notice*'s proposals on the two new increased benchmarks and the expanded *de minimis* exception. See *supra* para. 1.

<sup>108</sup> See, e.g., *Notice*, 30 FCC Rcd at 13880-81, 13885 paras. 78-79, 96 (discussing compliance processes such as waivers).

<sup>109</sup> See *id.* at 13883-84 paras. 88-90 (discussing grandfathering and other issues regarding how best to ensure that people with hearing loss are able to find hearing aid-compatible phones); see also April Supplemental Filing at 5 (discussing issues regarding consumers' identification of both hearing aids and mobile devices under the current HAC rating and disclosure system).

<sup>110</sup> See *id.* at 13884-85 paras. 91-95 (discussing hearing aid compatibility reporting, disclosure, labeling, and portfolio requirements, as well as transition issues implicated by moving to a 100 percent compatibility regime); see also April Supplemental Filing at 5-6 (discussing issues regarding "the implementation process").

<sup>111</sup> See *id.* at 13877-78 paras. 67 (discussing the JCP proposal that any new benchmarks resulting from the Commission's determination of achievability should go into effect no less than twenty-four months after the determination), 71 (seeking comment on the timeframes proposed in the JCP).

alternatives and implementation issues<sup>112</sup> until the point at which the Commission receives a final report on the achievability of a 100 percent hearing aid compatibility standard from the stakeholder consensus group(s) that we anticipate will participate in this proceeding.<sup>113</sup> As such issues are relevant to the milestones we describe above,<sup>114</sup> however, we expect that interested parties will make submissions as appropriate, as these issues remain open for consideration within the scope of this proceeding.<sup>115</sup> Moreover, as interested parties seek points of agreement on these issues separate from the aforementioned milestones, we expect they will make submissions summarizing points of consensus.

44. *Determination of Achievability.* We intend to base our determination of the achievability of a 100 percent compatibility deployment benchmark on the factors identified in Section 710(e) of the Act.<sup>116</sup> Section 710(e) requires the Commission to “consider costs and benefits to all telephone users, including persons with and without hearing loss,” and to “ensure that regulations adopted to implement [the Hearing Aid Compatibility Act] encourage the use of currently available technology and do not discourage or impair the development of improved technology.”<sup>117</sup> Section 710(e) further directs that the Commission should use appropriate timetables and benchmarks to the extent necessary due to technical feasibility or to ensure marketability or availability of new technologies to users.<sup>118</sup>

45. We note that in response to the *Notice*, Wireless Associations and Consumer Groups recommend that the Commission use a Section 710 analysis (as opposed to the achievability requirements of Section 716 and 718)<sup>119</sup> to determine whether a 100 percent standard is achievable.<sup>120</sup> We agree with this recommendation, as we intend to rely on the factors identified in Section 710(e) of the Act. This approach is consistent with the analysis undertaken by the Commission in the 2008 *First Report and Order* when it adopted modifications to the then-current deployment benchmarks.<sup>121</sup> We do not plan to base our determination of achievability on certain other Section 710 provisions, however, such as Section 710(b)(2)(B) which directs the Commission to use a four-part test to periodically reassess exemptions from the hearing aid compatibility requirements for wireless handsets.<sup>122</sup> Accordingly, as interested parties prepare a report on the achievability of a 100 percent hearing aid compatibility deployment

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<sup>112</sup> See *id.* at 13883-84, 13885 paras. 89 (discussing the ability of consumers to find hearing aid-compatible handsets), 96.

<sup>113</sup> The current deployment benchmarks and related hearing aid compatibility requirements were established in 2008 when the Commission adopted a consensus plan containing a proposed model rule submitted by a working group that included Tier I carriers, handset manufacturers, and several organizations representing the interests of people with hearing loss. See generally Supplemental Comments of ATIS in WT Docket No. 06-203 (filed June 25, 2007) at Attachment C. As part of any future report on the achievability of a 100 percent hearing aid compatibility standard, we would expect to receive a similar proposed model rule containing the details necessary to transition to such a standard within the current Section 20.19 regulatory framework.

<sup>114</sup> See *supra* paras. 40-41.

<sup>115</sup> For example, parties to the JCP indicate that stakeholders should work towards establishing consensus on “how to ensure that the HAC rating system is effective in helping consumers who use hearing aid devices identify both the hearing aid and mobile devices that will meet their unique needs.” April Supplemental Filing at 5.

<sup>116</sup> 47 U.S.C. § 610(e).

<sup>117</sup> *Id.*

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

<sup>119</sup> See *Notice*, 30 FCC Rcd at 13879-80 para. 76 (discussing Section 716 and 718 of the Act).

<sup>120</sup> Consumer Groups Comments at 3-4; Wireless Associations Comments at 4, 10-11.

<sup>121</sup> See *First Report and Order*, 23 FCC Rcd at 3408 para. 5 n.6.

<sup>122</sup> 47 U.S.C. § 610(b)(2)(B). The four-part test for lifting an exemption does not apply here where the Commission is assessing benchmarks for services and equipment already within the scope of Section 20.19 of the rules.

benchmark, we encourage them to submit conclusions based on the factors identified in Section 710(e), including cost/benefit, technical feasibility, marketability, and availability of new technologies.

46. *Alternative Hearing Aid Compatibility Technologies.* In connection with the achievability assessment, we encourage stakeholders to work towards consensus submissions on whether a 100 percent standard should permit technologies other than those designed to meet the current M and T rating requirements,<sup>123</sup> and to “consider which data would be needed to determine if the existing definition of [hearing aid compatibility] is the most effective means for ensuring access to wireless handsets for consumers who use hearing aids while encouraging technological innovation.”<sup>124</sup> The JCP provides that the Commission should consider “whether wireless handsets can be deemed compliant with the HAC rules through means other than by measuring RF interference and inductive coupling.”<sup>125</sup> In the *Notice*, the Commission sought comment on whether any new benchmarks should specifically require both a minimum M3 and T3 rating, or whether manufacturers should be allowed to meet the requirement by incorporating other methods of achieving compatibility with hearing aids, such as Bluetooth®.<sup>126</sup> In response to the *Notice*, Apple and ASTAC both support rules that recognize solutions such as Bluetooth as alternative hearing aid compatibility technologies,<sup>127</sup> while HIA and other individual commenters oppose permitting certification of Bluetooth profiles that are not universally standardized in the same way as the telecoils found in hearing aids and cochlear implants.<sup>128</sup> Wireless Associations, Consumer Groups, and T-Mobile state that the Commission should use the stakeholder process to evaluate new and innovative ways to consider the definition of hearing aid compatibility.<sup>129</sup>

47. As interested parties prepare a report on the achievability of a 100 percent hearing aid compatibility deployment benchmark, we expect that they will consider alternative hearing aid compatibility technologies, along with emerging technologies and devices designed to assist in modifying or amplifying sound for individuals with hearing loss, such as personal sound amplification (PSA) products.<sup>130</sup> We also invite parties to explain how these technologies and devices should be incorporated

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<sup>123</sup> See April Supplemental Filing at 4-5 (stating that “it would be prudent . . . to consider the definition of HAC for purposes of a wireless handset’s compliance with the Commission’s rules”).

<sup>124</sup> July Supplemental Filing at 3.

<sup>125</sup> JCP at 2.

<sup>126</sup> *Notice*, 30 FCC Rcd at 13881-82 para. 83.

<sup>127</sup> See generally Apple Comments; ASTAC Comments at 1-3.

<sup>128</sup> HIA Comments at 6; Sterkens Reply Comments at 1; Sterkens & Bailey Reply Comments at 1; see also Letter from Janice Schacter Lintz, CEO, Hearing Access & Innovations, Inc., to Marlene H. Dortch, Secretary, FCC, WT Docket Nos. 15-285, 07-250, filed Feb. 26, 2016, at 2-4 (raising concerns about the proprietary pairing of products that might result in the elimination of telecoil receptivity on cell phones, including concerns about the consequences of reducing access to hearing induction loops in certain venues, such as theaters and museums).

<sup>129</sup> Consumer Groups Comments at 2; Wireless Associations Comments at 7; T-Mobile Reply at 3-4.

<sup>130</sup> The U.S. Food and Drug Administration has defined a PSA as a “wearable electronic product that is not intended to compensate for impaired hearing but rather is intended for non-hearing impaired consumers to amplify sounds in certain environments, such as for hunting or other recreational activities.” See U.S. Food and Drug Administration, *Regulatory Requirements for Hearing Aid Devices and Personal Sound Amplification Products - Draft Guidance for Industry and Food and Drug Administration Staff* (Nov. 7, 2013), <http://www.fda.gov/RegulatoryInformation/Guidances/ucm373461.htm>. Other sources, however, suggest that these devices also may be used to improve the hearing performance of individuals with hearing loss. See M. Ross, Ph.D, Rehabilitation Engineering Research Center on Hearing Enhancement, *Personal Sound Amplification Products Versus Hearing Aids*, [http://www.hearingresearch.org/ross/hearing\\_aids/psaps\\_vs\\_hearing\\_aids.php](http://www.hearingresearch.org/ross/hearing_aids/psaps_vs_hearing_aids.php) (last visited July 6, 2016). We invite interested parties to make submissions on the extent to which new technologies are able to acoustically or inductively couple with wireless handsets and whether and how their availability and use should impact our requirements for hearing aid compatibility.

into a future benchmark framework. Because telecoils may be comparable to analog technologies, we invite submissions regarding the inclusion of digital technologies, such as Bluetooth, within the rules as alternatives for meeting some or all of any future deployment benchmark(s). We emphasize the importance of broad interoperability between hearing aids and compatibility technologies, and we flag the costs the consumers could face if certain technologies work only with select hearing aids. We are encouraged by the extent to which Apple's proprietary solutions may lead to further research towards more universal standards that can someday be recognized by a standards body like ANSI, particularly if they lead to interoperable alternative solutions that can be deployed more widely across all manufacturers' devices and can work reliably with more than just certain select hearing aid models.<sup>131</sup>

48. *Relying on the Accessibility Clearinghouse.* We also sought comment in the *Notice* on whether and how compatibility information that manufacturers supply on Form 655 could be used to automatically supplement the Accessibility Clearinghouse database,<sup>132</sup> and whether service providers should be able to rely on information in the Accessibility Clearinghouse or in manufacturers' Form 655 submissions as a compliance safe harbor.<sup>133</sup> Very few commenters address these issues, and those that did offered only general support without input on how these measures could or should be implemented.<sup>134</sup> We note that the existing Accessibility Clearinghouse database contains information gathered from and curated by third parties and, despite questions on this issue in the *Notice*, no commenters addressed whether the database reliably identifies devices that are in fact fully compliant with the hearing aid compatibility rules.<sup>135</sup> We therefore invite interested parties to address these issues regarding the Clearinghouse in supplemental submissions, and we encourage them to offer consensus positions to the extent possible. Because these issues may become less impactful in the event we transition to 100 percent compatibility, we note that it would be most beneficial to receive stakeholders' views toward the beginning of the timetable presented above.

49. While we reach no conclusion at this time about a safe harbor based on the Accessibility Clearinghouse, we find that the hearing aid compatibility rating information contained in manufacturers' Form 655 reports is reliable. In those reports, manufacturers must identify each handset model's hearing aid compatibility rating, which in turn must reflect the testing results produced by a Commission-

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<sup>131</sup> See Apple Comments at 11; see also April Supplemental Filing at 4 ("Consideration should also be given to whether use of innovative measures beyond the current M and T rating system will incentivize wireless handset manufacturers to think more creatively about handset accessibility. In order to minimize any duplication of efforts, the task force will work cooperatively with appropriate technical standards setting bodies and ensure consistency with technical standards where possible.").

<sup>132</sup> See *Notice*, 30 FCC Rcd at 13883-84 para. 89. The Accessibility Clearinghouse can be accessed at <http://fcc.gov/AccessibilityClearinghouse>. The Accessibility Clearinghouse uses information contained on CTIA's accessibility web site, [AccessWireless.org](http://AccessWireless.org), which in turn, has been largely derived from the Global Accessibility Reporting Initiative (GARI) of the Mobile Manufacturers Forum. See <http://www.accesswireless.org/Find.aspx>. From this link, visitors can search for handsets sold by particular manufacturers and service providers.

<sup>133</sup> *Notice*, 30 FCC Rcd at 13884 para. 90.

<sup>134</sup> See, e.g., Consumer Groups Comments at 9 (stating that the Commission should conduct further outreach about the Accessibility Clearinghouse, similar to the public education effort regarding the digital television service transition); RWA Comments at 9 (stating that the Commission should employ a safe harbor for small providers so they can rely on information in the Accessibility Clearinghouse and on forms submitted by manufacturers); Wireless Associations Comments at 12 (supporting the proposal to link information in the filed Forms 655 with the Accessibility Clearinghouse, for as long as Forms 655 are required to be filed.); NTCA Reply Comments at 3 (stating that information in the Accessibility Clearinghouse and on Form 655 submitted by manufacturers should be a safe harbor that protects providers from potential action).

<sup>135</sup> See *Notice*, 30 FCC Rcd at 13883-84 para. 89.

approved Telecommunications Certification Body.<sup>136</sup> Manufacturers are further required to certify that statements reported in the form “are accurate, true and correct.”<sup>137</sup> Because we conclude that this information is reliable, we will treat a service provider as compliant with the hearing aid compatibility rules to the extent that its compliance is based on its reasonable reliance on data contained in, or aggregated from, manufacturers’ Form 655 submissions.<sup>138</sup>

50. *Waiver Requests.* We also sought comment in the *Notice* on potential modifications to the Commission’s compliance processes in the context of implementing the JCP, including how best to apply the Section 710(b)(3) waiver process.<sup>139</sup> In particular, we sought comment on whether we should establish a fixed time period within which the Commission must take action on waiver requests, and if so, whether 180 days or another amount of time would be appropriate considering both the need to develop a full record and the importance of avoiding delay in the introduction of new technologies.<sup>140</sup> While some commenters recommend that a waiver process should continue to be available to provide relief in appropriate cases, no commenter addresses the adoption of such a time period.<sup>141</sup> We again invite interested parties to address in this proceeding the adoption of a shot clock on the resolution of hearing aid compatibility waiver requests involving new technologies or other circumstances, and the extent to which such a measure (or other modifications to the waiver process or the Commission’s other compliance processes) may contribute to the achievability of a 100 percent requirement, to addressing the concerns of small entities, or to ensuring that hearing aid compatibility requirements do not hinder the development or deployment of new technologies.

## V. PROCEDURAL MATTERS

### A. Regulatory Flexibility Act

51. As required by the Regulatory Flexibility Act of 1980 (“RFA”),<sup>142</sup> the Commission has prepared a Final Regulatory Flexibility Analysis (“FRFA”) relating to this Report and Order. The FRFA is set forth in Appendix C.

### B. Paperwork Reduction Analysis

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

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<sup>136</sup> *See* 47 CFR 20.19(i)(2); FCC, Hearing Aid Compatibility Reports: Device Manufacturers, [http://wireless.fcc.gov/hac/index.htm?job=reports\\_dm](http://wireless.fcc.gov/hac/index.htm?job=reports_dm) (Manufacturer Reports).

<sup>137</sup> *Id.*

<sup>138</sup> The current manufacturers’ individual Form 655 filings are available at [http://wireless.fcc.gov/hac/index.htm?job=rpt\\_dm\\_c](http://wireless.fcc.gov/hac/index.htm?job=rpt_dm_c), and aggregated information is available at the Manufacturer Reports page, under the heading “Information by Handset.”

<sup>139</sup> *See Notice*, 30 FCC Rcd at 13880 para. 78.

<sup>140</sup> *See id.* at 13880 para. 79.

<sup>141</sup> *See, e.g.*, RWA Comments at 7 (stating that the Commission should “continue to grant waivers in situations where Tier III carriers encounter difficulties in procuring compliant handsets”); *see also* Consumer Groups Comments at 8 (supporting waivers of the rules to individual manufacturers or carriers “if a technological difficulty prevents 100% HAC compliance”).

<sup>142</sup> *See* 5 U.S.C. § 604. 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). The SBREFA was enacted as Title II of the Contract With America Advancement Act of 1996 (CWAAA).

**C. Congressional Review Act**

53. The Commission will include a copy of this Report and Order in a report to be sent to Congress and the Government Accountability Office pursuant to the Congressional Review Act, *see* 5 U.S.C. § 801(a)(1)(A).

**D. Accessible Formats**

54. 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).

**E. Further Information**

55. For further information regarding the Report and Order contact Eli Johnson, Wireless Telecommunications Bureau, (202) 418-1395, e-mail [Eli.Johnson@fcc.gov](mailto:Eli.Johnson@fcc.gov), and Michael Rowan, Wireless Telecommunications Bureau, (202) 418-1883, e-mail [Michael.Rowan@fcc.gov](mailto:Michael.Rowan@fcc.gov).

**VI. ORDERING CLAUSES**

56. Accordingly, IT IS ORDERED, pursuant to 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 Report and Order IS HEREBY ADOPTED.

57. IT IS FURTHER ORDERED that the rule amendments set forth in Appendix B WILL BECOME EFFECTIVE 30 days after publication in the Federal Register.

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

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch  
Secretary

**APPENDIX A****List of Commenters****Comments**

American Cochlear Implant Alliance (ACI Alliance)  
American National Standards Institute Accredited Standards Committee C63® Subcommittee 8 (ANSI  
ASC C63®)  
Apple Inc. (Apple)  
Arctic Slope Telephone Association Cooperative (ASTAC)  
Blooston Rural Carriers (Blooston)  
CTIA / Telecommunications Industry Association / Competitive Carriers Association (Wireless  
Associations)  
Hearing Industries Association (HIA)  
Hearing Loss Association of America / Telecommunications for the Deaf and Hard of Hearing / National  
Association of the Deaf / Deaf/Hard of Hearing Technology RERC (Consumer Groups)  
Rural Wireless Association, Inc. (RWA)

**Reply Comments**

Chambers, Robert (Chambers)  
Consumer Groups  
NTCA—The Rural Broadband Association (NTCA)  
Sterkens, Juliette (Sterkens)  
Sterkens, Juliette & Bailey, Abram (Sterkens & Bailey)  
T-Mobile USA, Inc. (T-Mobile)

## APPENDIX B

## Final Rules

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

1. The authority citation for Part 20 continues to read as follows:

AUTHORITY: 47 U.S.C. 151, 152(a) 154(i), 157, 160, 201, 214, 222, 251(e), 301, 302, 303, 303(b), 303(r), 307, 307(a), 309, 309(j)(3), 316, 316(a), 332, 610, 615, 615a, 615b, 615c, unless otherwise noted.

2. Section 20.19 is amended by adding paragraphs (c)(1)(i)(C), (c)(1)(i)(D), (c)(2)(iii), (c)(3)(iii), (c)(3)(iv), (d)(1)(ii)(D), (d)(1)(ii)(E), (d)(2)(iii), (d)(3)(iii), (d)(3)(iv), and (e)(3), to read as follows:

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

\* \* \* \* \*

(c) \* \* \*

(1) \* \* \*

(i) \* \* \*

(C) Beginning [INSERT DATE TWENTY-FOUR MONTHS AFTER THE EFFECTIVE DATE OF THE RULES], at least sixty-six (66) percent of those handset models (rounded down to the nearest whole number) must comply with the requirements set forth in paragraphs (b)(1) and (b)(2) of this section.

(D) Beginning [INSERT DATE SIXTY MONTHS AFTER THE EFFECTIVE DATE OF THE RULES], at least eighty-five (85) percent of those handset models (rounded down to the nearest whole number) must comply with the requirements set forth in paragraphs (b)(1) and (b)(2) of this section.

(2) \* \* \*

(iii) Beginning [INSERT DATE THIRTY MONTHS AFTER THE EFFECTIVE DATE OF THE RULES], each Tier I carrier must ensure that at least sixty-six (66) percent of the handset models it offers comply with paragraphs (b)(1) and (b)(2) of this section, calculated based on the total number of unique digital wireless handset models the carrier offers nationwide. Beginning [INSERT DATE SIXTY-SIX MONTHS AFTER THE EFFECTIVE DATE OF THE RULES], each Tier I carrier must ensure that at least eighty-five (85) percent of the handset models it offers comply with paragraphs (b)(1) and (b)(2) of this section, calculated based on the total number of unique digital wireless handset models the carrier offers nationwide.

\* \* \* \* \*

(3) \* \* \*

(iii) Beginning [INSERT DATE FOURTY-TWO MONTHS AFTER THE EFFECTIVE DATE OF THE RULES], ensure that at least sixty-six (66) percent of the handset models it offers comply with paragraphs (b)(1) and (b)(2) of this section, calculated based on the total number of unique digital wireless handset models the carrier offers.

(iv) Beginning [INSERT DATE SEVENTY-EIGHT MONTHS AFTER THE EFFECTIVE DATE OF

THE RULES], ensure that at least eighty-five (85) percent of the handset models it offers comply with paragraphs (b)(1) and (b)(2) of this section, calculated based on the total number of unique digital wireless handset models the carrier offers.

\* \* \* \* \*

(d) \* \* \*

(1) \* \* \*

(D) Beginning [INSERT DATE TWENTY-FOUR MONTHS AFTER THE EFFECTIVE DATE OF THE RULES], at least sixty-six (66) percent of the handset models in that air interface, which must also comply with paragraph (b)(1) of this section.

(E) Beginning [INSERT DATE SIXTY MONTHS AFTER THE EFFECTIVE DATE OF THE RULES], at least eighty-five (85) percent of the handset models in that air interface, which must also comply with paragraph (b)(1) of this section.

\* \* \* \* \*

(2) \* \* \*

(iii) Beginning [INSERT DATE THIRTY MONTHS AFTER THE EFFECTIVE DATE OF THE RULES], each Tier I carrier must ensure that at least sixty-six (66) percent of the handset models it offers comply with paragraphs (b)(1) and (b)(2) of this section, calculated based on the total number of unique digital wireless handset models the carrier offers nationwide. Beginning [INSERT DATE SIXTY-SIX MONTHS AFTER THE EFFECTIVE DATE OF THE RULES], each Tier I carrier must ensure that at least eighty-five (85) percent of the handset models it offers comply with paragraphs (b)(1) and (b)(2) of this section, calculated based on the total number of unique digital wireless handset models the carrier offers nationwide.

\* \* \* \* \*

(3) \* \* \*

(iii) Beginning [INSERT DATE FOURTY-TWO MONTHS AFTER THE EFFECTIVE DATE OF THE RULES], ensure that at least sixty-six (66) percent of the handset models it offers comply with paragraphs (b)(1) and (b)(2) of this section, calculated based on the total number of unique digital wireless handset models the carrier offers;

(iv) Beginning [INSERT DATE SEVENTY-EIGHT MONTHS AFTER THE EFFECTIVE DATE OF THE RULES], ensure that at least eighty-five (85) percent of the handset models it offers comply with paragraphs (b)(1) and (b)(2) of this section, calculated based on the total number of unique digital wireless handset models the carrier offers.

\* \* \* \* \*

(e) \* \* \*

(3) Beginning [INSERT DATE TWENTY-FOUR MONTHS AFTER THE EFFECTIVE DATE OF THE RULES], manufacturers that offer four or five digital wireless handset models in an air interface must offer at least two handset models compliant with paragraphs (b)(1) and (b)(2) of this section in that air interface. Beginning [INSERT DATE THIRTY MONTHS AFTER THE EFFECTIVE DATE OF THE RULES] Tier I carriers who offer four digital wireless handset models in an air interface must offer at least two handsets compliant with paragraphs (b)(1) and (b)(2) of this section in that air interface and Tier I carriers who offer five digital wireless handset models in an air interface must offer at least three

handsets compliant with paragraphs (b)(1) and (b)(2) of this section in that air interface. Beginning [INSERT DATE FOURTY-TWO MONTHS AFTER THE EFFECTIVE DATE OF THE RULES] service providers, other than Tier I carriers, who offer four digital wireless handset models in an air interface must offer at least two handset models compliant with paragraphs (b)(1) and (b)(2) of this section in that air interface and service providers, other than Tier I carriers, who offer five digital wireless handset models in an air interface must offer at least three handsets compliant with paragraphs (b)(1) and (b)(2) of this section in that air interface.

\* \* \* \* \*

## APPENDIX C

## Final Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),<sup>1</sup> the Federal Communications Commission (Commission) prepared an Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on a substantial number of small entities of the rules considered in the Notice of Proposed Rulemaking (*Notice*) in WT Docket 15-285.<sup>2</sup> The Commission sought written public comment on the *Notice* in this docket, including comment on the IRFA. Because the Commission amends its rules in the Report and Order, the Commission is including this Final Regulatory Flexibility Analysis (FRFA), which conforms to the RFA.<sup>3</sup> To the extent that any statement contained in this FRFA is perceived as creating ambiguity with respect to the Commission's rules, or statements made in preceding sections of this Report and Order, the rules and statements set forth in those preceding sections shall be controlling.

**A. Need for, and Objectives of, the Report and Order**

2. To ensure that a wide selection of digital wireless handset models are available to consumers with hearing loss, the Commission's rules require both manufacturers and service providers to meet defined benchmarks for offering hearing aid-compatible wireless phones. Specifically, manufacturers and service providers are required to offer minimum numbers or percentages of handset models that meet specified technical standards for compatibility with hearing aids operating in both acoustic coupling and inductive coupling modes. These benchmarks apply separately to each air interface for which the manufacturer or service provider offers handsets.

3. The wireless hearing aid compatibility rules have incorporated this fractional benchmark approach since the provision was first established in 2003, but the Commission has on occasion revised the specific benchmarks that manufacturers and service providers are required to meet. The current benchmarks were established in 2008 when the Commission adopted the Joint Consensus Plan submitted by an Alliance for Telecommunications Industry Solutions (ATIS) working group that included Tier I carriers, handset manufacturers, and several organizations representing the interests of people with hearing loss. That plan provided for benchmarks to increase over time, up to a final set of benchmarks that became effective in 2010 and remain in place today.

4. The current deployment benchmarks require that, subject to a *de minimis* exception described below, a handset manufacturer must meet, for each air interface over which its models operate, (1) at least an M3 rating for acoustic coupling for at least one-third of its models using that air interface (rounded down), with a minimum of two models, and (2) at least a T3 rating for inductive coupling for at least one-third of its models using that interface (rounded down), with a minimum of two models.<sup>4</sup>

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<sup>1</sup> 5 U.S.C. § 603. The RFA, 5 U.S.C. §§ 601-612 has been amended by the Contract With America Advancement Act of 1996, Public Law No. 104-121, 110 Stat. 847 (1996) (CWAAA). Title II of the CWAAA is the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA). *See* 5 U.S.C. § 603.

<sup>2</sup> *Improvements to Benchmarks and Related Requirements Governing Hearing Aid-Compatible Mobile Handsets*, WT Docket No. 15-285, Fourth Report and Order and Notice of Proposed Rulemaking, 30 FCC Rcd 13845 (2015).

<sup>3</sup> *See* 5 U.S.C. § 604.

<sup>4</sup> 47 CFR §§ 20.19(c)(1), (d)(1). To define and measure the hearing aid compatibility of handsets, the Commission's rules reference a technical standard formulated by the ANSI Accredited Standards Committee C63<sup>®</sup> – Electromagnetic Compatibility which is part of the American National Standards Institute (ANSI Standard). A handset is considered hearing aid-compatible for acoustic coupling if it meets a rating of at least M3 under the applicable ANSI Standard and for inductive coupling if it meets a rating of at least T3. *See Amendment of the Commission's Rules Governing Hearing Aid-Compatible Mobile Handsets*, WT Docket No. 07-250, Third Report and Order, 27 FCC Rcd 3732, 3733 para. 4 (2012). Using a digital wireless phone with a hearing aid or cochlear

(continued....)

Similarly, a service provider must meet, for each air interface over which its models operate, (1) at least an M3 rating for acoustic coupling for at least 50 percent of its models using that air interface (rounded up) or ten models, and (2) at least a T3 rating for inductive coupling for at least one-third of its models using that interface (rounded up) or ten models.<sup>5</sup>

5. In general, under the *de minimis* exception, small manufacturers and service providers that offer two or fewer digital wireless handset models operating over a particular air interface are exempt from the benchmark deployment requirements in connection with that air interface.<sup>6</sup> Larger manufacturers and service providers with two or fewer handset models in an air interface have a limited obligation.<sup>7</sup> The provision further provides that any manufacturer or service provider that offers three digital wireless handset models operating over a particular air interface must offer at least one such handset model that meets the Commission's acoustical and inductive coupling requirements for that air interface.<sup>8</sup>

6. In the *Notice*, the Commission sought comment on a Joint Consensus Proposal (JCP) filed on November 12, 2015, jointly by three consumer advocacy organizations and three industry trade associations proposing a process for moving away from the current fractional benchmark regime.<sup>9</sup> In brief, the JCP envisions a staged increase in the applicable benchmark percentages, culminating in a 100 percent benchmark in eight years, subject to a formal assessment by the Commission of whether complete compatibility is achievable. Specifically, the JCP provides that within two years of the effective date of

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implant in acoustic coupling mode requires measures to control radiofrequency (RF) interference and other electromagnetic interference from the wireless phone. ANSI C63.19 specifies ratings for digital wireless phones measuring the extent to which they control for RF emissions. An "M1" rating identifies handsets with the highest emissions, and an "M4" rating identifies those with 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 identifying the least immune and M4 the most immune. To determine whether a particular digital wireless phone is likely to interfere with a particular hearing aid, the immunity rating of the hearing aid is added to the emissions rating of the wireless phone. A sum of 4 indicates that the wireless phone will be usable; a sum of 5 indicates that the wireless phone will provide normal use; and a sum of 6 or greater indicates that the wireless phone will provide excellent performance with that hearing aid. See Accredited Standards Committee C63<sup>®</sup> – Electromagnetic Compatibility, *American National Standard Methods of Measurement of Compatibility between Wireless Communications Devices and Hearing Aids*, ANSI C63.19-2007 (June 8, 2007) at 5. Handsets and hearing aids are rated from T1 to T4 for inductive coupling capability in a similar manner to the M-ratings.

<sup>5</sup> 47 CFR §§ 20.19(c)(2), (c)(3), (d)(2), (d)(3). See also *Amendment of the Commission's Rules Governing Hearing Aid-Compatible Mobile Handsets*, WT Docket No. 07-250, First Report and Order, 23 FCC Rcd 3406, 3418-19 para. 35 (2008).

<sup>6</sup> 47 CFR § 20.19(e). This exception applies to manufacturers and service providers that have had less than a certain threshold of employees for at least two years (750 employees for manufacturers and 1500 employees for service providers), and that have not been offering handsets over an air interface for at least two years. *Id.* at § 20.19(e)(1)(ii).

<sup>7</sup> Larger manufacturers are defined as those having had more than 750 employees for at least two years and larger service providers are defined as those having had more than 1500 employees for at least two years. *Id.* Specifically, the rule provides that larger manufacturers and service providers that have been offering one or two handsets over an air interface for at least two years must offer at least one handset model compliant with the Commission's acoustic and inductive coupling requirements. *Id.*

<sup>8</sup> *Id.* at § 20.19(e)(2).

<sup>9</sup> See Letter from James Reid, Senior Vice President, Government Affairs, TIA, Scott Bergmann, Vice President, Regulatory Affairs, CTIA, Rebecca Murphy Thompson, General Counsel, CCA, Anna Gilmore Hall, Executive Director, HLAA, Claude Stout, Executive Director, Telecommunications for the Deaf and Hard of Hearing, and Howard A. Rosenblum, Chief Executive Officer, National Association of the Deaf, to Marlene H. Dortch, Secretary, FCC, WT Docket Nos. 07-250, 10-254, filed Nov. 12, 2015 (JCP).

the new rules, 66 percent of wireless handset models offered to consumers should be compliant with the Commission's acoustic coupling (M rating) and inductive coupling (T rating) requirements.<sup>10</sup> The proposal provides further that within five years of the effective date, 85 percent of wireless handset models offered to consumers should be compliant with the Commission's M and T rating requirements.<sup>11</sup>

7. The proposal provides that these new benchmarks should apply to manufacturers and service providers that offer six or more digital wireless handset models in an air interface, except that Tier I and non-Tier I carriers would receive six months and eighteen months of additional compliance time, respectively, to account for availability of handsets and inventory turn-over rates.<sup>12</sup> The proposal recommends that the existing *de minimis* exception continue to apply for manufacturers and service providers that offer three or fewer handset models in an air interface and that manufacturers and service providers that offer four or five digital wireless handset models in an air interface should ensure that at least two of those handset models are compliant with the Commission's M and T rating requirements.<sup>13</sup>

8. As proposed in the JCP and the *Notice*, the Commission adopted the 66 and 85 percent benchmarks for manufacturers and service providers who offer six or more handset models per air interface, with the two and five year transition periods, respectively, for manufacturers and the additional transition periods of six months for Tier I carriers and 18 months for non-Tier I carriers. To satisfy these benchmarks, handset models must meet both a rating of M3 or higher for acoustic coupling and T3 or higher for inductive coupling capability. The Commission determined to maintain its current rounding rules that allow *manufacturers* to round their fractional deployment obligations down, but require *service providers* to round their fractional deployment obligations up.

9. Consistent with the JCP, the Commission also determined to maintain the current *de minimis* exception that applies to manufacturers and service providers that offer three or fewer handset models in an air interface and provides that manufacturers and service providers that offer four wireless handset models in an air interface must ensure that at least two of those handset models are compliant with the Commission's M and T rating requirements.

10. Given the wide and unanimous support in the record for revising the hearing aid compatibility requirements as described above, the Commission found that adopting the 66 and 85 percent benchmarks and the related implementation provisions to be in the public interest. Specifically, the Commission carefully considered the costs and benefits to all end users, including persons with and

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<sup>10</sup> *Id.* at 1.

<sup>11</sup> *Id.* at 2.

<sup>12</sup> *Id.* at n.1, n.2. The hearing aid compatibility rule defines Tier I carriers as Commercial Mobile Radio Service (CMRS) providers that offer service nationwide. See 47 CFR § 20.19(a)(3)(v); see also *Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems; Phase II Compliance Deadlines for Non-Nationwide Carriers*, CC Docket No. 94-102, Order to Stay, 17 FCC Rcd 14841, 14843 para. 7 (2002). We note that, in 2015, the Commission amended Section 20.19 to provide that, on or after January 1, 2018 for Tier I carriers and April 1, 2018 for service providers other than Tier I carriers, the hearing aid compatibility requirements of Section 20.19 apply to "providers of digital mobile service in the United States to the extent that they offer terrestrial mobile service that enables two-way real-time voice communications among members of the public or a substantial portion of the public, including both interconnected and non-interconnected VoIP services, and such service is provided over frequencies in the 698 MHz to 6 GHz bands." *Improvements to Benchmarks and Related Requirements Governing Hearing Aid-Compatible Mobile Handsets*, WT Docket No. 15-285, Fourth Report and Order and Notice of Proposed Rulemaking, 30 FCC Rcd 13845, 13891, Appx. B (2015) (*Fourth Report and Order and Notice*; or referencing *Fourth Report and Order* or *Notice* as appropriate); 47 CFR § 20.19(a)(1)(i) (2016). Accordingly, as of the dates specified in that provision, the term "service provider" in this Report and Order and in Section 20.19 as amended herein includes providers of digital mobile service as defined in Section 20.19(a)(1)(i). Further, while Tier I carriers are defined as providers of CMRS, the obligations will apply to such carriers for any service that they provide within the new scope.

<sup>13</sup> JCP at n.1, n.2.

without hearing loss, and found the new benchmarks and implementation schedule to be appropriate and reasonable. The Commission determined that these changes found an appropriate balance between the interests of handset manufacturers, large and small service providers, and consumers with hearing loss. The Commission's actions will expand access to hearing aid-compatible handsets while preserving the flexibility that allows competition and innovation to flourish.<sup>14</sup> Consumers with hearing loss will have more hearing aid-compatible handsets from which to choose from when purchasing new phones and manufacturers and service providers will have the time they need to meet the new benchmark requirements. The Commission's approach properly accounts for the realities of technology constraints as well as the needs of those with hearing loss. No commenting party argued that these benchmarks and their related implementation provisions would be detrimental to consumers either with or without hearing loss. In fact, commenters broadly support the new benchmarks, timelines, additional implementation periods, and related provisions.<sup>15</sup>

11. In the Report and Order, the Commission also set forth a process and timeline, consistent with the proposals in the JCP, for interested parties to make submissions individually or collectively, including from any independent task force or consensus group that they create. The Commission determined to leave many hearing aid compatibility issues open and deferred action on a final rule codifying a 100 percent compatibility deployment benchmark. It also identified for specific consideration several issues raised by parties to the JCP and the *Notice*. The Commission explained that it will use submissions over the next several years to develop a record on whether and when a regime under which all wireless handsets are required to be hearing aid-compatible is "achievable." The Commission further explained that it will use this docket to collect additional points of consensus that it anticipates will be the basis for a final rule that codifies a 100 percent wireless hearing aid compatibility deployment standard and addresses the other hearing aid compatibility requirements raised in the *Notice*.

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

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

**C. Response to Comments by the Chief Counsel for Advocacy of the Small Business Administration**

13. Pursuant to the Small Business Jobs Act of 2010, the Commission is required to respond to any comments filed by the Chief Counsel for Advocacy of the Small Business Administration (SBA), and to provide a detailed statement of any change made to the proposed rules as a result of those comments.<sup>16</sup> The Chief Counsel did not file any comments in response to the proposed rules in this proceeding.

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

14. The RFA directs agencies to provide a description of, and where feasible, an estimate of the number of small entities that may be affected by the rules adopted.<sup>17</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>18</sup> In addition, the term "small business" has the same meaning as the

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<sup>14</sup> See Wireless Associations Comments at 3-4.

<sup>15</sup> See ACI Alliance Comments at 2; Chambers Reply Comments at 1; Consumer Groups Comments at 1, 9-10; HIA Comments at 5; Wireless Associations Comments at 3-4; T-Mobile Reply Comments at 2-3.

<sup>16</sup> 5 U.S.C. § 604(a)(3)

<sup>17</sup> 5 U.S.C. § 604(a)(4).

<sup>18</sup> See 5 U.S.C. § 601(6).

term “small business concern” under the Small Business Act.<sup>19</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>20</sup> A small organization is generally “any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.”<sup>21</sup> Below, we further describe and estimate the number of small entity licensees and regulatees that may be affected by the rules changes adopted in the Report and Order.

15. *Small Businesses, Small Organizations, and Small Governmental Jurisdictions.* Our action may, over time, affect small entities that are not easily categorized at present. We therefore describe here, at the outset, three comprehensive, statutory small entity size standards.<sup>22</sup> First, nationwide, there are a total of approximately 28.8 million small businesses, according to the SBA.<sup>23</sup> In addition, a “small organization” is generally “any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.”<sup>24</sup> Nationwide, as of 2007, there were approximately 1,621,315 small organizations.<sup>25</sup> Finally, the term “small governmental jurisdiction” is defined generally as “governments of cities, towns, townships, villages, school districts, or special districts, with a population of less than fifty thousand.”<sup>26</sup> Census Bureau data for 2011 indicate that there were 89,476 local governmental jurisdictions in the United States.<sup>27</sup> We estimate that, of this total, as many as 88,506 entities may qualify as “small governmental jurisdictions.”<sup>28</sup> Thus, we estimate that most governmental jurisdictions are small.

16. *Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing.* The Census Bureau defines this category as follows: “This industry comprises

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<sup>19</sup> See 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.” 5 U.S.C. § 601(3).

<sup>20</sup> See 5 U.S.C. § 601(3) (incorporating by reference the definition of “small business concern” in 15 U.S.C. § 632). Pursuant to the RFA, the statutory definition of a small business applies unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions that are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register.

<sup>21</sup> See 5 U.S.C. § 601(4).

<sup>22</sup> See 5 U.S.C. §§ 601(3)–(6).

<sup>23</sup> See SBA, Office of Advocacy, “Frequently Asked Questions,” [https://www.sba.gov/sites/default/files/advocacy/SB-FAQ-2016\\_WEB.pdf](https://www.sba.gov/sites/default/files/advocacy/SB-FAQ-2016_WEB.pdf) (figures are from 2013).

<sup>24</sup> 5 U.S.C. § 601(4).

<sup>25</sup> INDEPENDENT Sector, THE NEW NONPROFIT ALMANAC & DESK REFERENCE (2010).

<sup>26</sup> 5 U.S.C. § 601(5).

<sup>27</sup> U.S. CENSUS BUREAU, STATISTICAL ABSTRACT OF THE UNITED STATES: 2011, Table 427 (2007).

<sup>28</sup> The 2007 U.S. Census data for small governmental organizations are not presented based on the size of the population in each such organization. There were 89,476 small governmental organizations in 2007. If we assume that county, municipal, township and school district organizations are more likely than larger governmental organizations to have populations of 50,000 or less, the total of these organizations is 52,125. If we make the same assumption about special districts, and also assume that special districts are different from county, municipal, township, and school districts, in 2007 there were 37,381 special districts. Therefore, of the 89,476 small governmental organizations documented in 2007, as many as 89,506 may be considered small under the applicable standard. This data may overestimate the number of such organizations that has a population of 50,000 or less. U.S. CENSUS BUREAU, STATISTICAL ABSTRACT OF THE UNITED STATES 2011, Tables 426, 427 (2007).

establishments primarily engaged in manufacturing radio and television broadcast and wireless communications equipment. Examples of products made by these establishments are: transmitting and receiving antennas, cable television equipment, GPS equipment, pagers, cellular phones, mobile communications equipment, and radio and television studio and broadcasting equipment.” The SBA has developed a small business size standard for Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing, which is: all such firms having 750 or fewer employees.<sup>29</sup> According to Census Bureau data for 2007, there were a total of 939 establishments in this category that operated for part or all of the entire year. Of this total, 912 had less than 500 employees.<sup>30</sup> Thus, under this size standard, the majority of firms can be considered small.

17. *Part 15 Handset Manufacturers.* The Commission has not developed a definition of small entities applicable to unlicensed communications handset 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>31</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>32</sup> According to Census Bureau data for 2007, there were a total of 939 establishments in this category that operated for part or all of the entire year. Of this total, 912 had less than 500 employees.<sup>33</sup> Thus, under this size standard, the majority of firms can be considered small.

18. *Wireless Telecommunications Carriers (except satellite).* The Census Bureau defines this category as follows: “This industry comprises establishments engaged in operating and maintaining switching and transmission facilities to provide communications via the airwaves. Establishments in this industry have spectrum licenses and provide services using that spectrum, such as cellular phone services, paging services, wireless Internet access, and wireless video services.”<sup>34</sup> The appropriate size standard under SBA rules is for the category Wireless Telecommunications Carriers (except Satellite). In this category, a business is small if it has 1,500 or fewer employees.<sup>35</sup> For this category, census data for 2007 show that there were 1,383 firms that operated for the entire year.<sup>36</sup> Of this total, 1,368 firms had employment of 999 or fewer employees and 15 had employment of 1000 employees or more.<sup>37</sup> According to Commission data, 413 carriers reported that they were engaged in the provision of wireless

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<sup>29</sup> 13 CFR § 121.201, NAICS code 334220.

<sup>30</sup> *Id.*

<sup>31</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>32</sup> 13 CFR § 121.201, NAICS code 334220.

<sup>33</sup> *Id.*

<sup>34</sup> U.S. Census Bureau, 2012 NAICS Definitions: 517210 Wireless Telecommunications Carriers (except Satellite), <http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517210&search=2012>.

<sup>35</sup> 13 CFR § 121.20, NAICS code 517210.

<sup>36</sup> U.S. Census Bureau, Table No. EC0751SSSZ5, *Information: Subject Series - Establishment and Firm Size: Employment Size of Firms for the United States: 2007* (NAICS code 517210), [http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN\\_2007\\_US\\_51SSSZ5](http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2007_US_51SSSZ5).

<sup>37</sup> *Id.* Available 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.

telephony, including cellular service, PCS, and Specialized Mobile Radio (SMR) telephony services.<sup>38</sup> Of these, an estimated 261 have 1,500 or fewer employees and 152 have more than 1,500 employees.<sup>39</sup> Consequently, the Commission estimates that approximately half or more of these firms can be considered small. Thus, using available data, we estimate that the majority of wireless firms can be considered small.

19. *Internet Service Providers.* The 2007 Economic Census places these firms, whose services might include Voice over Internet Protocol (VoIP), in one of three categories. The first refers to whether the service is provided over the provider's own telecommunications facilities (*e.g.*, cable and DSL ISPs), or over client-supplied telecommunications connections (*e.g.*, dial-up ISPs). The Commission classifies this type of ISP in the category of Wired Telecommunications Carriers. Wired Telecommunications Carriers comprise establishments primarily engaged in operating or providing access to transmission facilities or infrastructure that they own and/or lease for the transmission of voice, data, sound, and video using wired telecommunications networks. Transmission facilities may be based on a single technology or on a combination of technologies. Establishments in this industry use the wired telecommunications network facilities to provide a variety of services, such as wired telephony services, including VoIP services, wired cable audio and video programming distribution, and wired broadband Internet services. By exception, establishments providing satellite distribution services using facilities and infrastructure that they operate are included in this industry.<sup>40</sup> Wired Telecommunications Carriers have an SBA small business size standard under which an establishment having 1,500 or fewer employees is small.<sup>41</sup> The second type of ISP is classified in the category of Wireless Telecommunications Carriers (except satellite). This industry comprises establishments engaged in operating and maintaining switching and transmission facilities to provide communications via the airwaves. Establishments in this service have spectrum licenses and provide services using that spectrum, such as cellular phone services, wireless Internet access, and wireless video services.<sup>42</sup> The size standard for Wireless Telecommunications Carriers (except satellite) is the same as for Wired Telecommunications Carriers. The third type of ISP is classified under All Other Telecommunications. This industry comprises establishments primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation. This industry also includes establishments primarily engaged in providing satellite terminal stations and associated facilities connected with one or more terrestrial systems and capable of transmitting telecommunications to, and receiving telecommunications from, satellite systems. Establishments providing Internet services or VoIP services via client-supplied telecommunications connections are also included in this industry.<sup>43</sup> The SBA size standard for this industry states that all establishments in this category whose annual receipts are \$32.5 million or less are small.<sup>44</sup>

20. For purpose of this rulemaking, we are concerned only with those ISPs that are classified either in the category of Wireless Communications Carriers (except satellite) or are classified in the category of All Other Telecommunications. The type of handsets, which are the subject of the rulemaking herein is primarily, if not exclusively, concerned with wireless handsets. Accordingly ISPs,

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<sup>38</sup> See Federal Communications Commission, *Trends in Telephone Service* (Sept. 2010) at Table 5.3, available at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-301823A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf) (*Trends in Telephone Service*).

<sup>39</sup> See *id.*

<sup>40</sup> U.S. Census Bureau, 2007 NAICS Definitions: 517110 Wired Telecommunications Carriers, <https://www.census.gov/cgi-bin/sssd/naics/naicsrch>.

<sup>41</sup> 13 CFR § 121.201, NAICS code 517110.

<sup>42</sup> See [https://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517210&search=2007 NAICS Search](https://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517210&search=2007%20NAICS%20Search).

<sup>43</sup> See <https://www.census.gov/cgi-bin/sssd/naics/naicsrch>.

<sup>44</sup> 13 CFR § 121.201, NAICS code 517919.

which are classified under Wired Telecommunications, are not relevant in the context of this particular rulemaking.

21. United States census data for 2007 show that there were 1,383 Wireless Telecommunications Carriers (except satellite) firms that operated for the entire year. Of this total, 1,368 firms had employment of 999 or fewer employees. According to Commission data, 413 carriers reported that they were engaged in the provision of wireless telephony, including cellular service, PCS, and Specialized Mobile Radio (SMR) telephony services. Of these, an estimated 261 have 1,500 or fewer employees and 152 have more than 1,500 employees. Consequently, the Commission estimates that approximately half or more of these firms can be considered small. Thus, using available data, we estimate that the majority of wireless telecommunications carriers can be considered small.

22. With regard to the category of All Other Telecommunications, U.S. Census data for 2007 state that 2,383 firms were operational during that year. Of that number, 2,346 had annual receipts of less than \$25 million.<sup>45</sup> Consequently, we estimate that the majority of ISP firms in this category are small entities.

23. *All Other Information Services.* The Census Bureau defines this industry as including “establishments primarily engaged in providing other information services (except news syndicates, libraries, archives, Internet publishing and broadcasting, and Web search portals).”<sup>46</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 \$27.5 million or less in average annual receipts.<sup>47</sup> According to Census Bureau data for 2007, there were 367 firms in this category that operated for the entire year.<sup>48</sup> Of these, 354 had annual receipts of under \$25 million.<sup>49</sup> Consequently, we estimate that the majority of these firms are small entities that may be affected by our action.

#### **E. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities**

24. The current hearing aid compatibility regulations impose a number of obligations on covered wireless service providers and the manufacturers of digital wireless handsets used with those services, including: (1) requirements to deploy a certain number or percentage of handset models that meet hearing aid compatibility standards, (2) “refresh” requirements on manufacturers to meet their hearing aid-compatible handset deployment benchmarks in part using new models, (3) a requirement that service providers offer hearing aid-compatible handsets with varying levels of functionality, (4) a requirement that service providers make their hearing aid-compatible models available to consumers for testing at their owned or operated stores, (5) point of sale disclosure requirements, (6) requirements to make consumer information available on the manufacturer’s or service provider’s website, and (7) annual reporting requirements.

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<sup>45</sup> See

[http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN\\_2007\\_US\\_51SSSZ4&prodType=table](http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2007_US_51SSSZ4&prodType=table).

<sup>46</sup> U.S. Census Bureau, 2007 NAICS Definitions: 519190 All Other Information Services,

<http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=519190&search=2007%20NAICS%20Search>.

<sup>47</sup> See 13 CFR § 121.201, NAICS code 519190.

<sup>48</sup> U.S. Census Bureau, 2007 Economic Census, Information: Subject Series – Establishment and Firm Size: Table 5, “Employment Size of Firms for the United States: 2007, NAICS Code 519190,”

[http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN\\_2007\\_US\\_51SSSZ4&prodType=table](http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2007_US_51SSSZ4&prodType=table).

<sup>49</sup> See *id.*

25. In the Report and Order, the Commission did not impose any additional reporting, record keeping, or other compliance requirements. As discussed above, the Commission determined to increase the hearing aid-compatible handset deployment requirements over a period of time for covered manufacturers and service providers. These increases in deployment requirements were proposed in the JCP by the relevant stakeholders, and the Commission sought comment on these increases and related implementation provisions. No party objected to these increases and, in fact, parties expressly supported the increases. In addition, the Commission is keeping the current *de minimis* exception to the deployment requirements in place and is expanding it to cover manufacturers and service providers who offer four or five handset models in an air interface. As a result, reporting, recording keeping, and other compliance requirements for small business manufacturers of wireless handsets and small business wireless service providers remain the same.

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

26. The RFA requires an agency to describe any significant, specifically small business alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): “(1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) exemption from coverage of the rule, or any part thereof, for small entities.”<sup>50</sup>

27. In the Report and Order, the Commission adopted a number of provisions to help small businesses in meeting the new hearing aid compatibility deployment requirements. Specifically, the Commission decided to keep in place the existing *de minimis* exception and expanded it. The current *de minimis* exception provides that small manufacturers and service providers that offer two or fewer digital wireless handset models operating over a particular air interface are exempt from the benchmark deployment requirements in connection with that air interface, while larger manufacturers with two or fewer handsets have a limited obligation.<sup>51</sup> The provision further states that any manufacturer or service provider that offers three digital wireless handset models operating over a particular air interface must offer at least one such handset model that meets the Commission’s hearing aid compatibility benchmark requirements for that air interface.<sup>52</sup>

28. In addition to retaining this exception to the benchmarks, the Commission expanded the exception to provide that in most instances manufacturers and service providers that offer four or five handsets in an air interface only need to offer two handset models that comply with the Commission’s benchmark requirements. This expansion of the *de minimis* rule will reduce the burden on small and new industry participants.

29. In addition to expanding the current *de minimis* exception, the Commission allowed small business service providers additional time to comply with the new benchmarks. Specifically, the Commission is allowing all small business service providers an additional eighteen months to meet each

<sup>50</sup> 5 U.S.C. §§ 603(c)(1)-(c)(4).

<sup>51</sup> 47 CFR § 27.19(e)(1). This exception applies to manufacturers and service providers that have had less than a certain threshold of employees for at least two years (750 employees for manufacturers and 1500 employees for service providers), and that have not been offering handsets over an air interface for at least two years. *Id.* at § 20.19(e)(1)(ii). Larger manufacturers are defined as those having had more than 750 employees for at least two years and larger service providers are defined as those having had more than 1500 employees for at least two years. *Id.* Specifically, the rule provides that larger manufacturers and service providers that have been offering one or two handsets over an air interface for at least two years must offer at least one handset model compliant with the Commission’s acoustic and inductive coupling requirements. *Id.*

<sup>52</sup> *Id.* § 27.19(e)(2).

new benchmark. The new 66 percent benchmark becomes effective two years after the effective date of the new rules and small business service providers will have 18 months after that date to comply with the new 66 percent benchmark. Similarly, small business service providers will have an additional eighteen months to comply with the new 85 percent benchmark that becomes effective five years after the new rules become effective. These longer transition periods will allow small business service providers additional time to adjust and modify their handset portfolios and takes into consideration normal handset portfolio turn-over rates. Since handset manufacturers will have to comply with the new benchmarks 18 months earlier than small business service providers, these entities should have ample opportunity to meet the revised benchmarks.

**G. Federal Rules that Might Duplicate, Overlap, or Conflict with the Rules**

30. None.

**H. Report to Congress**

31. The Commission will send a copy of the Report and Order, including this FRFA, in a report to Congress pursuant to the Congressional Review Act.<sup>53</sup> In addition, the Commission will send a copy of the Report and Order, including this FRFA, to the Chief Counsel for Advocacy of the SBA. A copy of the Report and Order and FRFA (or summaries thereof) will also be published in the Federal Register.

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<sup>53</sup> See 5 U.S.C. § 801(a)(1)(A).

**STATEMENT OF  
CHAIRMAN TOM WHEELER**

Re: *Improvements to Benchmarks and Related Requirements Governing Hearing Aid-Compatible Mobile Handsets*, WT Docket No. 15-285

When it comes to communications technology, accessibility should be a first thought, not an afterthought. This is the smart thing to do, because it is more cost-effective to incorporate accessibility features early in the design process. More important, it is the right thing to do, because it ensures equal accessibility for Americans with hearing loss.

One area where the Commission has made significant progress in making sure accessibility is baked into new technology is hearing aid compatibility (HAC) for new mobile devices. Today, we take another step toward the day when Americans with hearing loss can access the same range of wireless handsets as anybody else.

Until last year, the Commission's hearing-aid-compatibility rules were focused on handsets used with traditional cellular networks and only required accessibility for a subset of devices.

In November 2015, the Commission unanimously adopted an order to update and "future proof" these rules. The order applied HAC requirements broadly to wireless voice communication services, including Wi-Fi calling, VoLTE, software-based calling "apps", as well as technologies that may develop in the future.

We also sought comment on a proposal, developed jointly and cooperatively by consumer groups and industry representatives that set a goal of 100 percent compatibility for new handsets and a roadmap for how to get there. Today's order will enshrine that groundbreaking consensus plan.

Today's order will eventually eliminate the "fractional benchmark" system under which only a percentage of wireless handset models must comply with the HAC rules.

The new rules will move us in stages toward 100 percent compatibility within eight years, setting forth the following benchmarks:

- After two years, 66 percent of device models offered by manufacturers must be compliant, with additional compliance time for service providers.
- After five years, 85 percent offered by manufacturers must comply, with additional time for service providers.

There are some manufacturers and service providers that already meet the benchmarks, but, for those that do not, the benchmarks will set the floor higher for all manufacturers and service providers. As a result, these new benchmarks should increase the total number of hearing-aid-compatible handsets available to consumers with hearing loss even before the move to 100 percent compatibility and will help ensure that everyone stays on track to reach our ultimate goal. In addition, the Report and Order also provides that, in meeting our benchmarks, service providers may legally rely on handset information contained in manufacturers' Form 655 filings.

In pursuing 100 percent compliance, we encourage stakeholders to keep us informed about evolutions in technology and market conditions that impact hearing aid compatibility. We will call on stakeholders to help us determine whether the 100 percent HAC-compliance goal is achievable. To be clear, we expect to require 100 percent compliance.

These additional updates to our hearing-aid-compatibility rules will greatly expand options for people with hearing loss, simplify the task of finding handsets that work with hearing aids and ensure that people with hearing loss have full access to innovative handsets. We appreciate the time, effort, and expertise that the stakeholders devoted to this achievement, and we hope it can serve as a model for collaborative problem solving in other area in the future.

**STATEMENT OF  
COMMISSIONER MIGNON L. CLYBURN**

Re: *Improvements to Benchmarks and Related Requirements Governing Hearing Aid-Compatible Mobile Handsets*, WT Docket No. 15-285

This past June, I had the privilege of visiting the Perkins School for the Blind in Watertown, Massachusetts. There, as a part of my #ConnectingCommunities tour, I met with two impressive students, brothers Logan and Shae, as they demonstrated innovative ways in which off-the-shelf technologies are enabling them to communicate with increased ease and aiding them in their quest to gain more knowledge, skills and independence. It was truly marvelous to see firsthand the transformative impact that access to technology is having on the lives of these students.

That is why I am pleased to support the item before us today, because it promises to deliver even more options and accessible devices to millions of Americans who deserve just as much choice as everyone else when it comes to wireless handsets. Industry leaders and consumer organizations joined forces and submitted a consensus proposal that this item significantly adopts. In addition to streamlining and increasing the hearing aid compatibility deployment benchmarks for providers and manufacturers, we chart a clear path going forward towards pursuing 100 percent hearing aid compatibility.

Over the next several years, industry and consumer groups will establish a task force to examine the technical and market conditions for wireless handsets as well as hearing improvement technologies. Following this review, the group has committed to submitting a report to the Commission, by the end of 2022, on the achievability of a 100 percent hearing aid compatibility deployment benchmark. I know I am in good company in saying that I look forward to the day when all Americans who use hearing aids have the same options as everyone else when purchasing a mobile phone.

In addition to recognizing the contributions of HLAA, Telecommunications for the Deaf and Hard of Hearing, the National Association of the Deaf, TIA, CTIA and CCA, I would like to thank the Wireless Telecommunications Bureau and the Consumer and Governmental Affairs Bureau for their hard work on this historic item.

**STATEMENT OF  
COMMISSIONER JESSICA ROSENWORCEL**

Re: *Improvements to Benchmarks and Related Requirements Governing Hearing Aid-Compatible Mobile Handsets*, WT Docket No. 15-285

Hearing loss is a big deal. More than 30 million Americans have some form of hearing difficulty—and among older Americans it is especially prevalent. In fact, for those between 65 and 74, one in three experience hearing loss. There is only one other group that wrestles with hearing loss in comparably large numbers—veterans.

Hearing problems are the most common service-connected difficulty experienced by our veterans. Military personnel who are repeatedly exposed to gunfire and explosives face special risk. Blast-induced injuries are not unusual. Stephen Carlson, who served two tours in Afghanistan, describes it like this: “I don’t remember the moment the bomb went off, but I do know that when I landed, stunned, at the bottom of the gun turret of my vehicle, blood was leaking from my ears. I was quickly evacuated to Bagram Air Force Base, where I saw an audiologist. I could barely hear a word he said, so he showed me a drawing of my eardrums. Only hanging shreds remained.”

Recovering from an injury like this is hard work. Getting accustomed to ringing in the ears, asking friends and family to repeat themselves, and acclimating to hearing aids takes time and effort. If anyone has the strength and fortitude to do so, it’s our veterans.

When they do, they deserve to be able to use mobile devices like everyone else. They deserve to have access to a full range of wireless handsets in the marketplace. They deserve to call, connect, and live life wirelessly like so many of us do.

Today’s decision helps make this possible. We put ourselves on a path to making 100 percent of mobile handsets hearing aid compatible. That means every device accessible to everyone with hearing problems. This is the right thing to do—for our veterans who have fought for our freedoms and everyone else coping with hearing loss. So kudos to the advocates, manufacturers, and carriers who have helped make this possible. This decision has my full support.

**STATEMENT OF  
COMMISSIONER AJIT PAI**

Re: *Improvements to Benchmarks and Related Requirements Governing Hearing Aid-Compatible Mobile Handsets*, WT Docket No. 15-285

In the 1870s, while working as a teacher for the deaf and hard of hearing, a young entrepreneur began experimenting with devices that could help his students hear and speak. As a result of that work, he invented a device that would change the way everyone communicates. That person was Alexander Graham Bell. The invention, of course, was the telephone.

It is a fitting tribute to Bell that we update our hearing-aid compatibility rules today to ensure that people with hearing loss have greater access to new, innovative telecommunications technologies. We do this in the short term by increasing the percentage of wireless handsets that must be hearing-aid compatible. And we do this in the long term by setting up a process that will enable us to decide whether 100% of handsets should be hearing-aid compatible.

Our ability to take these important steps is due in no small part to the leadership shown by the hearing loss community, including Telecommunications for the Deaf and Hard of Hearing, the Hearing Loss Association of America, and the National Association of the Deaf. These groups hammered out a consensus with industry groups, and all of these parties deserve to be recognized for their hard work.

As we move forward in this proceeding, I am glad that we are continuing to seek comment on ways that alternative technologies can serve the needs of consumers. With technology changing faster than ever, it is important that we help consumers with hearing loss leverage new apps, Bluetooth, or other technologies to meet their communications needs.

One way to do that is to make sure that our rules don't impede new products and services from entering the market. On this score, I'm glad that we are again teeing up the idea of putting ourselves on a shot clock. If an entrepreneur comes up with a new product or service that could better meet the needs of the hearing loss community, we should move quickly to decide whether that technology is consistent with the purposes underlying our hearing-aid-compatibility rules.

Turning back to Alexander Graham Bell: One of his students once remarked that he dedicated his life to remedying the "inhuman silence which separates and estranges." That student was Helen Keller, and she was right. Almost a century and a half later, the FCC does its small part to continue Bell's work by modernizing our hearing-aid-compatibility rules and ensuring that those with hearing loss are better able to end that silence.

**STATEMENT OF  
COMMISSIONER MICHAEL O'RIELLY**

Re: *Improvements to Benchmarks and Related Requirements Governing Hearing Aid-Compatible Mobile Handsets*, WT Docket No. 15-285

Today's order demonstrates a careful balancing of potentially competing interests – providing more hearing aid compatible phones while ensuring that innovation will not be delayed. In doing so, we increase the hearing aid compatibility benchmarks for wireless providers and manufacturers to 66 and 85 percent after specified transition periods, but will *evaluate* whether a 100 percent benchmark is achievable at a later time. I appreciate all of the work done by industry and the hearing impaired community to come to a compromise that both sides find acceptable.

The real work, however, is actually about to begin. According to the joint consensus proposal, a “task force” will be formed to consider whether moving towards that 100 percent hearing aid compatibility compliance is achievable and makes sense. In contemplating a 100 percent benchmark, the task force – and eventually the Commission – will weigh whether it is not only technically feasible but also the potential effects on the handset market and the costs and benefits of such a requirement. While the ultimate goal is laudable, it should not be done at the expense of the deployment of new technologies and the development of the next generation of handsets.

As an aside, I must admit that I find it ironic that we encourage the task force to consider costs and benefits in making its determination, but we once again fail to provide a quantitative cost-benefit analysis in this order. Just because there is a consensus proposal does not abrogate the Commission's responsibility to thoroughly analyze the costs and benefits of its regulations. Additionally, I am hopeful that this task force will be more balanced and neutral in coming to their conclusions than some of the Commission's advisory committees.

To encourage transparency, the item recommends the submission of annual reports about the formation and activities of the task force. I am able to approve this portion of the order because it clearly states that “[t]hese submissions are purely voluntary.”<sup>1</sup> The proposed reports, the suggested content and the submission timeframes are solely illustrative, and it will be left to the task force “to determine the best means of apprising the Commission of its activities.”<sup>2</sup> The item also states that, to the extent a report is filed, the Commission will not expect the disclosure of confidential or proprietary information, data or work product. Further, there will be no enforcement actions or other repercussions if reports are not filed by the task force, after its formation, or by any interested party on its own behalf. I thank the Chairman for accepting my edits clarifying these points.

Finally, since I joined the Commission, small and rural wireless providers have told me that there has been confusion about which handsets are and are not compliant with our hearing aid compatible requirements. As I explained when we considered the NPRM, misunderstandings and faulty information have led to unnecessary enforcement actions for companies seeking to comply.<sup>3</sup> In this item, we are

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<sup>1</sup> See *supra* ¶ 35.

<sup>2</sup> *Id.* ¶ 41.

<sup>3</sup> See, e.g., *Indigo Wireless, Inc.*, EB-SED-13-00009306, Forfeiture Order, 29 FCC Rcd 7404, 7405-06 ¶ 5 (2014); *General Communication, Inc., d/b/a Alaska DigiTel LLC and Alaska Wireless Communications, LLC*, EB-SED-13-00009563, Order, 29 FCC Rcd. 3505, 3510 ¶ 4 (2014); *Cordova Wireless Communications, LLC*, File No. EB-SED-13-00009239, Order, 28 FCC Rcd 12915, 12919 ¶ 3 (2013); *DOCOMO Pacific, Inc.*, EB-10-SE-109, Order, 28 FCC Rcd 4069, 4073 ¶ 3 (2013); *Airadigm Communications, Inc. dba Airfire Mobile*, EB-11-SE-045; EB-SED-12-00003753, Order, 28 FCC Rcd 8842, 8847 ¶ 5 (2013); *Ztar Mobile, Inc.*, EB-11-SE-061, EB-10-SE-126, EB-08-TC-6092, Order, 27 FCC Rcd 4712, 4717 ¶ 3 (2012); *Smith Bagley, Inc. dba Cellular One*, EB-10-SE-121, EB-09-SE-

(continued....)

making it clear that wireless providers that reasonably rely on the hearing aid compatibility rating information filed by manufacturers on their Form 655s will be shielded from FCC enforcement actions.<sup>4</sup> In other words, rely on the Commission's information and you will not get penalized. Call it a safe-harbor, if you will. This Form 655 information is contained in a spreadsheet that is placed on the Commission's hearing aid compatibility websites.<sup>5</sup> While this spreadsheet is only updated annually, it is a start, and it is my understanding that an updated list will be available shortly. Going forward, I hope interested parties and consumers will provide us with suggestions about how this list can be improved and made more effective. I appreciate that the Chairman, his staff and the Wireless Telecommunications Bureau worked with me to accomplish this common sense approach to protect wireless providers that are doing what they can to comply with our rules.

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161, Order, 27 FCC Rcd 9142, 9147 ¶ 4 (2012); *Epic Touch Co., Inc.*, EB-10-SE-111, Notice of Apparent Liability for Forfeiture, 25 FCC Rcd 17848, 17850-51 ¶ 5 (2010).

<sup>4</sup> Manufacturers also must certify to the accuracy of the report. "Willful false statements in a Form 655 can be punished by fine and/or imprisonment under Title 18 of the United States Code, 18 U.S.C. § 1001." *Instructions for Hearing Aid Compatibility Status Reporting Form (FCC Form 655)*, <http://wireless.fcc.gov/hac/FCCForm655Instructions.pdf> (last visited Aug. 3, 2016).

<sup>5</sup> *Device Manufacturers Information by Handset, Reporting Period July 1, 2014 to June 30, 2015*, [https://apps.fcc.gov/edocs\\_public/attachmatch/DOC-334865A1.pdf](https://apps.fcc.gov/edocs_public/attachmatch/DOC-334865A1.pdf) (last visited Aug. 3, 2016). Access to this spreadsheet can also be reached through the following websites: *Hearing Aid Compatibility Status Reporting*, <http://wireless.fcc.gov/hac/index.htm?job=home> (last visited Aug. 3, 2016); *Hearing Aid Compatibility Reports: Device Manufacturers*, [http://wireless.fcc.gov/hac/index.htm?job=reports\\_dm](http://wireless.fcc.gov/hac/index.htm?job=reports_dm) (last visited Aug. 3, 2016); and *Hearing Aid Compatibility (HAC)*, <https://www.fcc.gov/general/hearing-aid-compatibility-hac> (last visited Aug. 3, 2016).