Federal Communications Commission 445 12<sup>th</sup> St., S.W. Washington, D.C. 20554

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## UPDATED INFORMATION AND COMMENT SOUGHT ON REVIEW OF HEARING AID COMPATIBILITY REGULATIONS

WT Docket No. 10-254

Comment Date: [30 days from publication in the Federal Register]

By this Public Notice, the Wireless Telecommunications Bureau (Bureau) seeks updated comment on the operation and effectiveness of the Commission's rules relating to hearing aid compatibility of wireless handsets.<sup>1</sup> In December 2010, the Bureau issued a public notice to initiate a comprehensive review of the wireless hearing aid compatibility regulations (2010 Review PN).<sup>2</sup> Due to intervening market, technical, and regulatory developments since the 2010 Review PN, we seek updated and additional comment on these matters.

## Background

In the *Hearing Aid Compatibility Second Report and Order and Further NPRM* released on August 5, 2010, the Commission reiterated its intention, first stated in 2008,<sup>3</sup> to initiate a review of the hearing aid compatibility rules for digital wireless services and handsets in 2010.<sup>4</sup> Shortly thereafter, on

<sup>&</sup>lt;sup>1</sup> 47 C.F.R. § 20.19.

<sup>&</sup>lt;sup>2</sup> Comment Sought on 2010 Review of Hearing Aid Compatibility Regulations, WT Docket No. 10-254, *Public Notice*, 25 FCC Rcd 17566 (WTB 2010) (2010 Review PN).

<sup>&</sup>lt;sup>3</sup> 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, 3451 ¶ 117 (2008) (*Hearing Aid Compatibility First Report and Order*).

<sup>&</sup>lt;sup>4</sup> Amendment of the Commission's Rules Governing Hearing Aid-Compatible Mobile Handsets, WT Docket No. 07-250, *Policy Statement and Second Report and Order and Further Notice of Proposed Rulemaking*, 25 FCC Rcd 11167, 11173-74 ¶ 17 (2010) (*Hearing Aid Compatibility Second Report and Order and Further NPRM*). The *Further NPRM* sought comment on proposed changes to the wireless hearing aid compatibility rules, specifically: 1) whether to extend the hearing aid compatibility requirements to include handsets used to provide wireless voice communications over any type of network among members of the public or a substantial portion of the public; 2) whether to extend the in-store testing requirement to include retail outlets other than those owned or operated by service providers; and 3) whether to generally permit a user-controlled reduction of power as a means to meet the hearing aid compatibility standard for operations over the Global System for Mobile (GSM) air interface in the 1900

October 8, 2010, the Twenty-First Century Communications and Video Accessibility Act of 2010 (CVAA) became law, ensuring that individuals with disabilities have access to emerging Internet protocol-based communications and video programming technologies in the 21st Century. Among other provisions, the CVAA extended hearing aid compatibility requirements to customer premises equipment used with advanced communications services that is designed to provide 2-way voice communications via a built-in speaker intended to be held to the ear in a manner functionally equivalent to a telephone. The CVAA also preserved the exemption of mobile handsets from the requirement that all telephones be hearing aid-compatible, while maintaining the Commission's authority to revoke or limit such exemption.

In December 2010, the Bureau released the 2010 Review PN, which sought comment on numerous questions relating to the operation of the current hearing aid compatibility rules and their success in making a broad selection of wireless phones accessible to people who use hearing aids and cochlear implants, as well as in making information about those phones available to the public. In particular, the 2010 Review PN sought comment on several substantive issues.

First, the Bureau sought comment on the availability of hearing aid-compatible handsets. Specifically, we requested comment on whether the Commission's deployment benchmarks appropriately ensure that hearing aid-compatible handsets are available to all consumers. We also asked whether the rules have succeeded in making hearing aid-compatible phones available to consumers with a full range of different feature sets, and whether the rules appropriately account for the challenges facing smaller service providers. In addition, we requested comment on whether the M3 and T3 technical standards contained in American National Standards Institute Technical Standard C63.19 (ANSI Standard C63.19)<sup>8</sup> appropriately ensure that users of hearing aids and cochlear implants will be able to access wireless communications.<sup>9</sup>

The Bureau also sought comment on whether sufficient information about hearing aid-compatible phones is being made available to the Commission and the public. In particular, we asked whether the Commission's reporting system is collecting appropriate information in an efficient way, and whether that information is being made available to the public in an accessible manner. We further sought comment

MHz band. *Id.* at 11192-11202 ¶¶ 73-101. The Commission will address these issues in an upcoming Report and Order.

<sup>&</sup>lt;sup>5</sup> Pub. L. No. 111-260, 124 Stat. 2751 (2010) (as codified in various sections of 47 U.S.C.). *See also* Pub. L. No. 111-265, 124 Stat. 2795 (2010) (technical corrections to the CVAA).

<sup>&</sup>lt;sup>6</sup> CVAA, § 102(a)(1); 47 U.S.C. § 610(b)(1)(C).

<sup>&</sup>lt;sup>7</sup> CVAA, § 102(a)(2); 47 U.S.C. § 610(b)(2).

<sup>&</sup>lt;sup>8</sup> To define and measure the hearing aid compatibility of handsets, the Commission's rules reference American National Standards Institute (ANSI) technical standard C63.19 (ANSI Standard C63.19), formulated by the Accredited Standards Committee C63<sup>®</sup> – Electromagnetic Compatibility (ASC C63<sup>®</sup>). 47 C.F.R. § 20.19(b). At the time of the *2010 Review PN*, the current version of ANSI Standard C63.19, which was incorporated in the rules, was the 2007 revision. *See* ANSI C63.19-2007, "American National Standard Methods of Measurement of Compatibility Between Wireless Communication Devices and Hearing Aids" (June 8, 2007).

<sup>&</sup>lt;sup>9</sup> 2010 Review PN, 25 FCC Rcd at 17570-73.

on whether manufacturers' and service providers' websites are providing useful and accessible information, whether point-of-sale and packaging disclosures are appropriately informing consumers, and whether the in-store testing requirement is effective. We also asked what actions the Commission might take to provide better information to consumers with hearing loss who obtain handsets from sources other than service providers.<sup>10</sup>

The Bureau also sought comment on technical issues. Specifically, we asked whether additional measures are needed to facilitate acoustic coupling compatibility. We asked about the effects on hearing aid compatibility of display screens, wireless headsets, and simultaneous transmission capabilities in handsets. The Bureau also asked what actions the Commission might take to facilitate better interoperability of hearing aids and cochlear implants with handsets. <sup>11</sup>

In addition, the Bureau sought comment about the state of innovation in solutions to enable people with hearing loss to access wireless technology and whether the Commission's rules appropriately facilitate such innovation, investment, and competition. Finally, we asked what the Commission should do to promote collaboration among consumers with hearing loss, the communications industry, and the hearing aid industry. <sup>12</sup>

On April 9, 2012, the Bureau and the Office of Engineering and Technology released the *Hearing Aid Compatibility Third Report and Order*, which adopted the 2011 revision of ANSI Standard C63.19 as an applicable technical standard for evaluating the hearing aid compatibility of wireless phones.<sup>13</sup> The 2011 ANSI Standard expands the range of frequencies over which hearing aid compatibility can be tested to 698 MHz – 6 GHz and it establishes a direct method for measuring the radio frequency (RF) interference level of wireless devices to hearing aids, thereby enabling testing procedures to be applied to operations over any RF air interface or protocol.<sup>14</sup> The 2011 ANSI Standard also exempts from testing certain low power transmitters that are unlikely to cause unacceptable RF interference to hearing aids.<sup>15</sup> Under the recently adopted rules, beginning August 16, 2013, newly introduced multi-band and multi-mode handset models that include operations not covered under ANSI Standard C63.19-2007 must be

<sup>&</sup>lt;sup>10</sup> *Id.* at 17573-76.

<sup>&</sup>lt;sup>11</sup> *Id.* at 17576-78.

<sup>&</sup>lt;sup>12</sup> Id. at 17578-79.

<sup>&</sup>lt;sup>13</sup> 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, 3735, ¶ 9 (2012) (*Hearing Aid Compatibility Third Report and Order*). *See* Accredited Standards Committee C63® – Electromagnetic Compatibility, "American National Standard Methods of Measurement of Compatibility between Wireless Communications Devices and Hearing Aids," ANSI C63.19-2011 (May 27, 2011) (2011 ANSI Standard). The standard is available for purchase from IEEE Operations Center, 445 Hoes Lane, Piscataway, NJ 08854-4141, by calling (732) 981-0060, or going to <a href="http://www.ieee.org">http://www.ieee.org</a>. A copy of the standard is also available for inspection at the Federal Communications Commission (FCC), 445 12th St., SW., Reference Information Center, Room CY-A257, Washington, DC 20554.

<sup>&</sup>lt;sup>14</sup> 2011 ANSI Standard at 12-15.

<sup>&</sup>lt;sup>15</sup> *Id.* at 12-13; see Supplemental Report and Comments of ANSI ASC C63®, WT Docket Nos. 07-250, 01-309, 06-150, Annex A at ii (June 24, 2011) (ASC C63® Supplemental Report).

tested under ANSI Standard C63.19-2011 in order to be considered hearing aid-compatible. <sup>16</sup> The Commission's deployment benchmarks will become applicable to operations over frequency bands and air interfaces that are newly covered under the 2011 revision of the standard on August 16, 2014, for manufacturers and Tier I carriers and on November 16, 2014, for other service providers. <sup>17</sup>

## **Request for Comments**

During the 19 months since the record closed on the 2010 Review PN, technologies and markets for both wireless handsets and hearing assistance devices have continued to evolve. For example, manufacturers have introduced many new handset models, including models that both do and do not meet hearing aid compatibility technical standards.<sup>18</sup> Many of these handsets offer 3G and 4G broadband capability as well as other advanced and innovative features. At the same time, increasing numbers of hearing aids are equipped with telecoils.<sup>19</sup> We seek comment on how these and other developments affect any of the matters addressed in the 2010 Review PN. For example, do the Commission's rules continue to ensure that a full range of hearing aid-compatible handsets is available to all consumers?<sup>20</sup> Do the benchmarks for inductive coupling capability remain appropriate given the increasing prevalence of telecoils in hearing aids? Have developments in the marketplace posed new challenges, or relieved pre-existing challenges, to smaller providers? Are consumers adequately informed about the capabilities of the new handsets and their functionality with hearing aids and cochlear implants?<sup>21</sup> In particular, are consumers informed about the functioning of handsets that have a separate menu-driven mode for operation with telecoils, and that activating this mode may affect the phone's acoustic coupling performance?<sup>22</sup> Do the existing technical standards adequately and completely measure the new

<sup>&</sup>lt;sup>16</sup> 47 C.F.R. § 20.19(b)(3)(ii); see Hearing Aid Compatibility Third Report & Order, 27 FCC Rcd at 3738, ¶ 14.

<sup>&</sup>lt;sup>17</sup> 47 C.F.R. § 20.19(c), (d); see Hearing Aid Compatibility Third Report & Order, 27 FCC Rcd at 3741-42, ¶¶ 21-23. A Tier I carrier is a CMRS provider that offers such service nationwide. 47 C.F.R. §20.19(a)(iii)(v). Tier II carriers are defined as non-nationwide carriers that had over 500,000 subscribers as of year-end 2001. Tier III carriers are defined as all other non-nationwide carriers with 500,000 or fewer subscribers as of the end of 2001. See Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, Phase II Compliance Deadlines for Non-Nationwide CMRS Carriers, Order to Stay, 17 FCC Rcd 14841, 14846-48 ¶¶ 19-24 (2002).

<sup>&</sup>lt;sup>18</sup> Under Section 20.19(i) of the Commission's rules, 47 C.F.R. § 20.19(i), manufacturers and service providers are required to report annually on the status of their compliance with the hearing aid compatibility rules, including what handsets they offer and the hearing aid compatibility ratings of those handsets. The most recent manufacturer reports were due on July 15, 2012. The reports and summary information about the reports may be viewed at http://wireless.fcc.gov/hac/index.htm?job=home#d36e86.

<sup>&</sup>lt;sup>19</sup> See Letter from Lise Hamlin, Hearing Loss Association of America (HLAA), to Marlene H. Dortch, Secretary, FCC, WT Docket No. 10-254, filed Sept. 7, 2012, at 1 n.1 (HLAA *Ex Parte*) (reporting that more than 60 percent of hearing aids now come equipped with telecoils, up from 37 percent in 2001).

<sup>&</sup>lt;sup>20</sup> See id. at 1 (stating that many respondents to HLAA survey reported difficulty finding hearing aid-compatible mobile devices).

<sup>&</sup>lt;sup>21</sup> See id. at 2 (suggesting that more consumer education is needed, and noting consumer difficulties obtaining information in stores and on service providers' websites).

<sup>&</sup>lt;sup>22</sup> See id.

handsets' hearing aid compatibility?<sup>23</sup> With the introduction of devices in new sizes and form factors, is it sufficiently clear whether a device is "typically held to the ear in any of its ordinary uses" and therefore covered under the hearing aid compatibility rules?<sup>24</sup> We encourage commenters to address these and any other effects of technological and market developments.

We also seek comment on the impact of the newly adopted 2011 revision of ANSI Standard C63.19. In particular, because the direct measurement methodology made it possible to eliminate certain conservative assumptions, it is approximately 2.2 dB easier under the new standard for a GSM phone to receive an M3 rating. In light of this development, is it still necessary and appropriate to allow phones operating over GSM at 1900 MHz to achieve an M3 rating by means of a user-controlled power reduction? Do the new standard or the rules implementing that standard affect any other issues addressed in the 2010 Review PN? We also note that the Telecommunications Industry Association (TIA) has released new and revised standards relating to volume control and amplification for wireline phones, including digital cordless phones, which include revised measurement procedures as well as a new metric based on conversational gain. Although ASC C63® has not addressed these procedures and metrics in the context of mobile phones, the Consumer and Governmental Affairs Bureau has recognized their value in promoting accessibility to wireline services for people with hearing loss, and we invite comment on their potential relevance and benefits in the mobile context.

We encourage commenters, to the extent feasible, to include specific, quantifiable information regarding the costs and benefits of the Commission's hearing aid compatibility reporting and enforcement regime. Under the Hearing Aid Compatibility Act, the Commission is required to revoke or limit the exemption of phones used with public mobile services from hearing aid compatibility requirements if certain conditions are met.<sup>31</sup> However, the statute leaves the Commission substantial discretion to

<sup>&</sup>lt;sup>23</sup> See id. at 1 (noting survey finding that some consumers experienced interference with mobile devices they thought were hearing aid-compatible).

<sup>&</sup>lt;sup>24</sup> See 47 C.F.R. § 20.19(a)(3)(i).

<sup>&</sup>lt;sup>25</sup> See ASC C63® Supplemental Report, Annex A at iv.

<sup>&</sup>lt;sup>26</sup> See 47 C.F.R. § 20.19(e)(iii).

<sup>&</sup>lt;sup>27</sup> See HLAA Ex Parte at 1 (noting that the new standard makes it easier to determine the interference capability of a mobile device using new technologies and to predictively model interference early in the design process).

<sup>&</sup>lt;sup>28</sup> ANSI/TIA-4953:2012, Telecommunications Telephone Terminal Equipment Amplified Telephone Measurement Procedures and Performance Requirements (Aug. 2012); ANSI/TIA-4965:2012, Telecommunications Telephone Terminal Equipment Receive Volume Control Requirements for Digital and Analog Wireline Handset Terminals (Oct. 2012).

<sup>&</sup>lt;sup>29</sup> See Implementation of Sections 716 and 717 of the Communications Act of 1934, as Enacted by the Twenty-First Century Communications and Video Accessibility Act of 2010, CG Docket No. 10-213, *Biennial Report to Congress as Required by the Twenty-First Century Communications and Video Accessibility Act of 2010*, DA 12-602 at 10 ¶ 21 (Cons. & Gov. Affairs Bur. rel. Oct. 5, 2012).

<sup>&</sup>lt;sup>30</sup> See HLAA Ex Parte at 2.

<sup>&</sup>lt;sup>31</sup> Under the Hearing Aid Compatibility Act, the Commission is required to revoke or limit the exemption of phones used with public mobile services from hearing aid compatibility requirements if (i) such revocation or limitation is

implement the mechanisms that most cost-effectively ensure compliance with these requirements. Accordingly, we invite further comment on the costs and benefits of these mechanisms, particularly as applied to small entities. For example, what are the costs to small entities of accurately and timely completing FCC Form 655 and of responding to the Commission's enforcement inquiries? What are the benefits to consumers of having the information in the hearing aid compatibility reports available from the smallest service providers as well as the major national and regional carriers? Are there alternative approaches that would achieve substantially the same benefits in a more cost-effective manner?

We also welcome comment on any other new or changed circumstances relevant to the operation and effect of the hearing aid compatibility rules.

## **Procedural Matters**

Interested parties may file comments within 30 days of the publication of this Public Notice in the *Federal Register*. All filings should refer to WT Docket No. 10-254. Comments may be filed using: (1) the Commission's Electronic Comment Filing System (ECFS), or (2) by filing paper copies. See Electronic Filing of Documents in Rulemaking Proceedings, 63 FR 24121 (1998).

- Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: http://www.fcc.gov/cgb/ecfs/. Filers should follow the instructions provided on the website for submitting comments. If multiple dockets or rulemaking numbers appear in the caption of this proceeding, filers must transmit one electronic copy of the comments for each docket or rulemaking number referenced in the caption. In completing the transmittal screen, filers should include their full name, Postal Service mailing address, and the applicable docket number. Parties may also submit an electronic comment by Internet e-mail. To get filing instructions for email comments, filers should send an e-mail to ecfs@fcc.gov, and should include the following words in the body of the message, "get form <your e-mail address>." A sample form and directions will be sent in response.
- Paper Filers: Parties who choose to file by paper must file an original and four copies of each
  filing. If more than one docket or rulemaking number appears in the caption of this proceeding,
  filers must submit two additional copies for each additional docket or rulemaking number.

Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail (although we continue to experience delays in receiving U.S. Postal Service mail). All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

in the public interest; (ii) continuation of the exemption without such revocation or limitation would have an adverse effect on hearing-impaired individuals; (iii) compliance with hearing aid compatibility requirements is technologically feasible for the telephones to which the exemption applies; and (iv) compliance with hearing aid compatibility requirements would not increase costs to such an extent that the telephones to which the exemption applies could not be successfully marketed. 47 U.S.C. § 610(b)(2)(B).

- The Commission's contractor will receive hand-delivered or messenger-delivered paper filings for the Commission's Secretary at 236 Massachusetts Avenue, N.E., Suite 110, Washington, D.C. 20002. The filing hours at this location are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes must be disposed of before entering the building.
- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.
- U.S. Postal Service first-class mail, Express Mail, and Priority Mail should be addressed to 445 12<sup>th</sup> Street, SW, Washington, D.C. 20554.

One copy of each pleading must be delivered electronically, by e-mail or facsimile, or if delivered as paper copy, by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail (according to the procedures set forth above for paper filings), to the Commission's duplicating contractor, Best Copy and Printing, Inc., at FCC@BCPIWEB.COM or (202) 488-5563 (facsimile).

Copies of the public notice and any subsequently-filed documents in this matter may be obtained from Best Copy and Printing, Inc. in person at 445 12th Street, S.W., Room CY-B402, Washington, D.C. 20554, via telephone at (202) 488-5300, via facsimile at (202) 488-5563, or via e-mail at FCC@BCPIWEB.COM. The public notice and any associated documents are also available for public inspection and copying during normal reference room hours at the following Commission office: FCC Reference Information Center, 445 12th Street, S.W., Room CY-A257, Washington, D.C. 20554. The public notice is also available electronically through the Commission's ECFS, which may be accessed on the Commission's Internet website at <a href="http://www.fcc.gov">http://www.fcc.gov</a>.

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