Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of

Hearing Aid Compatibility Requirements for Wireless Telecommunications Devices

WT Docket No. 06-203

SUPPLEMENTAL COMMENTS OF THE
ALLIANCE FOR TELECOMMUNICATIONS INDUSTRY SOLUTIONS’ INCUBATOR SOLUTIONS PROGRAM #4 – HEARING AID COMPATIBILITY

June 25, 2007

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I. Summary

The Alliance for Telecommunications Industry Solutions (“ATIS”), on behalf of its Incubator Solutions Program #4 - Hearing Aid Compatibility (“AISP.4-HAC”), submits these supplemental comments in response to the Public Notice released November 8, 2006, in the above-referenced docket. These supplemental comments present a comprehensive proposal to modify the Federal Communications Commission’s (“Commission” or “FCC”) existing hearing aid compatibility (“HAC”) requirements for wireless handsets and reflect the input of the wireless industry (carriers and manufacturers) and consumers with hearing loss.

The current fifty percent requirement set forth in Section 20.19 of the Commission’s rules presents many challenges to providing hearing-aid compatible devices in a technology-neutral manner. In addition, the FCC’s existing rules require only a very small number of devices to be compatible with telecoil-equipped hearing aids, generally used by people with severe hearing loss. In the interest of improving the existing HAC requirements in these and other regards, the proposal discussed herein seeks to make a number of changes.

First, the proposal discussed herein addresses the significant complexities of providing HAC across all technology platforms. Second, the proposal adjusts the minimum number of HAC devices for all consumers with hearing loss and imposes additional requirements on both carriers and manufacturers to make available certain types of HAC devices for consumers with more severe hearing loss. Third, the proposal provides that the wireless industry and the Commission continue to review and evaluate HAC implementation. Finally, the proposal

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1 Wireless Telecommunications Bureau Seeks Comment on Topics to be Addressed in Hearing Aid Compatibility Report, Public Notice, DA 06-2285 (Nov. 8, 2006).
incorporates a plan for the wireless industry and consumers to study and make recommendations regarding audio output levels and volume controls.

For the reasons discussed herein, ATIS and the AISP.4-HAC respectfully request that the Commission adopt the modifications as presented in these supplemental comments.

II. Background

ATIS is a technical planning and standards development organization accredited by the American National Standards Institute (“ANSI”) and committed to rapidly developing and promoting technical and operational standards for communications and related information technologies worldwide using a pragmatic, flexible and open approach. The ATIS membership spans all segments of the industry, including local exchange carriers, interexchange carriers, wireless equipment manufacturers, competitive local exchange carriers, data local exchange carriers, wireless providers, providers of commercial mobile radio services, broadband providers, software developers, and internet service providers. Industry professionals from more than 300 communications companies actively participate in ATIS’ open industry committees and other forums.

In July 2003, AISP.4-HAC was created to investigate performance between hearing aids and wireless devices to determine methods of enhancing interoperability and the compatibility of wireless devices with hearing aids in order for those in the hearing aid and cellular wireless industries to meet the FCC’s HAC requirements. Since that time, technical experts from the wireless industry representing wireless manufacturers and service providers, as well as technical experts representing the hearing aid industry, have been deliberating under the auspices of AISP.4-HAC to address technical issues concerning the usability of wireless devices for
consumers with hearing aids. The AISP.4-HAC has the following membership (italics indicate participation in the working group developing this proposal):

<table>
<thead>
<tr>
<th>American Cellular Corporation</th>
<th>Leap Wireless</th>
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<tbody>
<tr>
<td>AT&amp;T</td>
<td>LG</td>
</tr>
<tr>
<td>Brookings Municipal Utilities d/b/a Swiftel Communications</td>
<td>Motorola, Inc.</td>
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<tr>
<td>Carolina West Wireless</td>
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<td>Corr Wireless Communications, LLC</td>
<td>Qwest Wireless</td>
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<td>Cricket Communications</td>
<td>Research in Motion Ltd.</td>
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<td>Dobson Cellular Systems Inc.</td>
<td>Samsung Telecommunications America LP</td>
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<td>Epic Touch</td>
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<td>Hewlett Packard</td>
<td>Sony Ericsson Mobile Communications (USA) Inc.</td>
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<td>Keystone Wireless</td>
<td>UTSTARCOM</td>
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<tr>
<td>Kyocera Wireless</td>
<td>Verizon Wireless</td>
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</tbody>
</table>

Representatives from advocacy groups representing consumers with hearing loss have also actively participated in open AISP.4-HAC meetings. The following advocates for consumers with hearing loss actively participated in the development of this proposal, which was negotiated at arm’s length as a cooperative effort among carriers, manufacturers, and these advocates:

Alexander Graham Bell Association for the Deaf and Hard of Hearing
Hearing Loss Association of America (HLAA)
Gallaudet University Technology Access Program
RERC on Telecommunications Access

The hearing aid and digital wireless industries face significant complexities and challenges in attempting to make their products compatible. Indeed, the struggle to achieve wireless digital access by hearing aid users began in 1994. Through an open and impartial consensus process, AISP.4-HAC has investigated in detail the complexities and challenges
associated with HAC for digital wireless phones. As a result of this investigation and negotiation, AISP.4-HAC has developed the following proposal.\(^2\)

The consensus proposal set forth herein is made up of several interrelated components.

In short, AISP.4-HAC proposes the following changes to the Commission’s existing HAC rules:

- Provide Tier 1 carriers with an alternative to the 50 percent rule\(^3\) for M-rated phones;
- Increase the number of T3-or-better phones that Tier 1 carriers must make available;
- Apply the Commission’s HAC rules to all spectrum bands that are used for the provision of commercial mobile radio services in the United States;
- Require manufacturers to offer thirty three (33) percent of wireless phones at the M3-or-better level;
- Require manufacturers to include HAC capability in some of their new models each year and in handsets with varying form factors;
- Retain the *de minimis* exception and allow it to take into account newer air interfaces and retiring air interfaces;
- Implement a phase-in of the ASC C63™ C63.19-2007 Standard\(^4\) for HAC testing;
- Require carriers and manufacturers regularly to report on the availability of products; and
- Establish a further review of the HAC rules in 2010 by the Commission.

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\(^2\) A description of the applicable standard is set forth in Attachment A. Aspects of this proposal as compared to the current rules are summarized in tabular form in Attachment B. Draft rules are set forth in Attachment C.

\(^3\) 47 C.F.R. § 20.19(c)(1)(ii) and (3)(ii) (2006) currently require fifty (50) percent of all phone models offered by digital wireless phone manufacturers and service providers to meet by February 18, 2008, the "U3" (now redesignated "M3") performance level for acoustic coupling established in the C63.19 Standard based on the total number of unique digital wireless phone models they offer throughout the nation.

\(^4\) The standard is now produced under the auspices of the accredited standards committee (ASC) known as C63™. It is entitled “American National Standard for Methods of Measurement between Wireless Communication Devices and Hearing Aids ANSI C63.19-2007” (hereinafter “C63.19,” “ASC C63™ C63.19-2007” or “C63.19-2006” if the context so indicates).
Due to the interrelated nature of these proposals, a change to any one portion could jeopardize the entire proposal.

If adopted, this proposal will ensure that consumers with hearing loss receive the full benefit of a variety of wireless services while adequately addressing the complexities associated with operating digital handsets and hearing aids together. Indeed, this proposal resolves many of the problems that have arisen or otherwise presented themselves since the Commission’s adoption of the current rules. This proposal seeks to address lessons learned and issues discovered as HAC evolves over time. First, the current rules did not anticipate and do not adequately address the problems associated with providing HAC across all technology platforms. As detailed in the January 12, 2007, comments submitted in this docket by AISP.4-HAC, some air interfaces have difficulty in achieving HAC-compliant devices in all form factors. Thus, the industry cannot comply with the current rules on a technology-neutral basis. For example, for the GSM air interface, many of the current regulations are either technologically not achievable or only achievable through the development of unmarketable products. The proposed rules resolve this problem by providing carriers with an alternative to the 50 percent rule.

Second, this proposal promotes increased access to certain types of HAC-compliant devices. For example, T-coil availability, which is typically used by consumers with more severe hearing loss, has been very limited for such consumers. This proposal fosters T-coil availability by imposing additional requirements on both carriers and manufacturers. Similarly, many people with hearing loss wish to have access to the same advanced new devices that are

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5 Comments of the Alliance for Telecommunications Industry Solutions on behalf of the ATIS Incubator Solutions Program #4 - Hearing Aid Compatibility, WT Docket No. 06-203 (Jan. 12, 2007).

6 See id.
available to the rest of the public. By requiring manufacturers to routinely add new devices to their HAC-compliant lineup, consumers with hearing loss will have more choices and access to newer technology at the time that this technology becomes available to others in the mainstream population.

Finally, this proposal ensures that the wireless industry and the Commission continue to evaluate the status of HAC implementation and whether further modifications are necessary. Specifically, AISP.4-HAC has committed to investigate and explore audio output and volume control standards and requirements. This proposal also ensures that the Commission will be able to continue to monitor manufacturers’ and carriers’ efforts to offer HAC-compliant devices through regular reporting requirements and allows for a review and possible modification of these rules in 2010.

In sum, this consensus proposal offers a win-win solution for all interested parties, including consumers with hearing loss and the wireless industry. Accordingly, AISP.4-HAC requests that the Commission adopt this proposal in full.

III. Proposal

A. Tier 1 Carrier Obligations.

M-Rating. Currently, Tier 1 carriers are required to ensure that at least fifty (50) percent of their handset models for each air interface offered have an M3-or-better rating by February 18, 2008.\(^7\) ATIS.4-HAC requests that the Commission modify this obligation to allow Tier 1

\(^{7}\) 47 C.F.R. § 20.19(c)(3). M ratings (formerly known as the U rating) as determined under the C63.19 Standard provide a measure of how well wireless handsets are likely to perform when used with hearing aids that utilize a microphone for picking up sound from the handset speaker. M ratings are determined by testing conducted pursuant to the C63.19 Standard. The higher the M rating, the less likely the handset is to produce electromagnetic interference in the hearing aid.
carriers to provide a set number of handsets by certain dates as an alternative to the 50 percent mandate. Specifically, ATIS.4-HAC proposes to require Tier 1 carriers to provide:

- eight (8) HAC-enabled handsets (M3-or-better) by February 18, 2008;
- nine (9) HAC-enabled handsets (M3-or-better) by February 18, 2009;
- ten (10) HAC-enabled handsets (M3-or-better) by February 18, 2010; and
- ten (10) HAC-enabled handsets (M3-or-better) by February 18, 2011.

Alternatively, Tier 1 carriers can comply with the obligation by ensuring that at least fifty (50) percent of the total number of digital wireless handset models for each air interface include M3-or-better capabilities.

T-Rating. Tier 1 carriers currently are required to offer two (2) handset models for each air interface that include T3-or-better functionalities. AISP.4-HAC requests that this requirement be modified so that Tier 1 carriers are required to either: (1) ensure that at least thirty-three (33) percent of the total number of digital wireless handset models for each air interface include T3-or-better functionalities by February 18, 2008; or (2) ensure that the following number of handset models for each air interface provide such functionality based on the following schedule:

- three (3) handsets (T3-or-better) by February 18, 2008;
- five (5) handsets (T3-or-better) by February 18, 2009;
- seven (7) handsets (T3-or-better) by February 18, 2010; and
- ten (10) handsets (T3-or-better) by February 18, 2011.

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8 47 C.F.R. § 20.19(d)(2). T ratings (formerly known as the UT rating) as determined under the C63.19 Standard provide a measure of how well wireless handsets are likely to perform when used with hearing aids that utilize an inductive pickup known as a telecoil or T-coil for receiving sound from the handset. The advantage of a T-coil is that it avoids extraneous noise that would be picked up by a microphone. T ratings are determined by testing conducted pursuant to the C63.19 Standard.
Under this proposal, Tier 1 carriers will support all U.S. frequency bands that support their service offerings, as those bands are included in a testing standard recognized by the Commission.

**B. Manufacturer Obligations.**

**M-Rating.** Manufacturers are required to ensure that at least fifty (50) percent of their handset offerings for each air interface offered to carriers meet the M3-or-better rating under the current FCC rules by February 18, 2008. This high percentage is not currently possible in a technology-neutral manner because commercially popular handset form factors in certain air interfaces have extreme difficulty achieving HAC compliance. Accordingly, AISP.4-HAC requests that the Commission modify this requirement so that thirty-three (33) percent of manufacturers’ non-*de minimis* portfolio models offered to service providers in the United States are required to be M3-or-better phones.

**T-Rating.** Currently, manufacturers are required to offer two handset models for each air interface that provides T3-or-better capabilities. AISP.4-HAC requests that this be modified to: (1) clarify that manufacturers may comply with this requirement by utilizing the C63.19-2006 Standard with a transition to the C63.19-2007 Standard (see Section III. I. below); and (2)

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9 Tier 1 carriers will not disable a band simply for the purpose of achieving HAC compliance.

10 47 C.F.R. § 20.19(c)(1).

11 See Comments of the Alliance for Telecommunications Industry Solutions on behalf of the ATIS Incubator Solutions Program #4 - Hearing Aid Compatibility, WT Docket No. 06-203 (Jan. 12, 2007).


require manufacturers that offer to carriers four (4) or more handset models in an air interface to offer at a minimum two (2) models in that air interface with T3-or-better capabilities (under either the C63.19-2006 Standard or any superseding standard then in effect) or to offer the following, whichever is greater in a given year:\textsuperscript{14}

- At least twenty (20) percent of their handset offerings to service providers in that air interface with T3-or-better capabilities under the C63.19-2007 Standard by February 18, 2009;\textsuperscript{15}
- At least twenty-five (25) percent of their handset offerings to service providers in that air interface with T3-or-better capabilities under the C63.19-2007 Standard by February 18, 2010; and
- At least thirty-three (33) percent of their handset offerings to service providers in that air interface with T3-or-better capabilities under the C63.19-2007 Standard by February 18, 2011.

C. Product Refresh.

People with hearing loss should have the benefits afforded the non-disabled community by having access to new, advanced devices. In order to achieve this goal, manufacturers have agreed to offer a mix of new and existing models so people with hearing loss have access to the latest technology. Specifically, for air interfaces with four (4) or more models, one-half of the M3-or-better models should be new models introduced in that calendar year. For those air

\textsuperscript{14} Because of the need to be definitive as to the number of units, the proposed consensus rules call for those manufacturers that produce four or more handsets offered to carriers in the United States to round down to the nearest whole number in calculating the number of handsets to be produced under these percentages. Note that each manufacturer not subject to the \textit{de minimis} exception must produce at least two or more T3-or-better handsets, according to the above schedule.

\textsuperscript{15} One (1) new model rated per the grandfathered C63.19-2006 Standard may be offered during this year to meet this requirement. All other new models from this point forward must support the 20 dB S/N increase per the C63.19-2007 Standard.
interfaces with three (3) models per air interface, one new model should be introduced every other year. The remaining models can be new or existing models. If a manufacturer has no plans to introduce a new model in a calendar year, then it will not be required to “refresh” its list of available HAC-compliant handsets.

D. **De Minimis Exception.**

The Commission’s *de minimis* exception should remain the same for both carriers and manufacturers but be clarified to make clear that it applies on a per-air-interface basis. Under this exception, new air interfaces entering the market have the opportunity to develop adequately prior to the imposition of any stringent HAC regulatory obligations. Similarly, this exception permits the phase-out of older air interfaces based on market considerations without diverting resources to interfaces that soon will be discontinued.

E. **Phones with Multiple Air Interfaces.**

In order to be counted as satisfying the requirements of Section 20.19, a handset that has multiple air interfaces must satisfy the C63.19 Standard with respect to all air interfaces for U.S. frequency bands. If a handset cannot meet the Section 20.19 HAC-compliant definition for all of its U.S. air interfaces, it will be counted as a non-HAC compliant phone.

F. **Section 255 Obligations.**

The requirements set forth in this proposal are not intended to supersede or alter the obligation of manufacturers and providers of telecommunications services under 47 U.S.C. § 255

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to provide hearing aid-compatible handsets in excess of the minimum numbers set forth herein if the provision of such additional handsets is readily achievable.

G. Reporting Requirements.

In light of the fact that the development of HAC-compliant devices is still evolving, the Commission should continue to monitor the market, thereby fostering compliance with its HAC regulations and allowing it to review industry developments to determine whether further modifications are necessary. AISP.4-HAC therefore recommends that the Commission adopt the new reporting requirements set forth herein for both manufacturers and carriers. Specifically, manufacturers will provide an annual status report to the Commission on November 30; carriers will provide an annual status report to the Commission six months later, on May 30. These reporting requirements will continue until the Commission’s 2010 review is complete and, if necessary, modified HAC obligations are put into place (likely to occur in 2012). This staggered six-month reporting period best reflects the typical diffusion of manufacturers’ device offerings into carrier portfolios. Tier 2 and 3 carriers will not be required to make a report until one year after the Tier 1 carriers, thus allowing time for manufacturers’ HAC products to reach Tier 2 and 3 carriers.

17 Manufacturers will provide the following in their annual reports: (1) digital wireless phones tested; (2) identification of compliant phone models using the FCC ID number and ratings according to C63.19; (3) report on the status of product labeling; (4) report on outreach efforts; (5) total numbers of compliant phone models offered as of the time of the report; and (6) information pertaining to product refresh.

18 Carriers will provide the following in their annual reports: (1) identification of compliant phone models using the FCC ID number and ratings according to C63.19; (2) report on the status of product labeling; (3) report on outreach efforts; (4) information related to retail availability of compliant phones; (5) total numbers of compliant and non-compliant phone models offered as of the time of the report; and (6) the tiers into which the compliant phones fall.
To comply with these requirements, carriers and manufacturers will take a “snapshot” of their existing portfolios at the time the report is due, providing information on the number and percentage of M-rated devices and T-rated devices available. These devices will be documented in the reports. Based on ATIS.4-HAC’s investigation, it is clear that people with hearing loss want a choice in product types and prices. Thus, these reports will also include information on the carriers’ implementation of “tiering.” To provide the necessary flexibility and to address the differences among product lines offered by different carriers and manufacturers, the demarcation of tiers should be left to the industry. All other aspects of the existing reporting framework should remain the same.19

**H. Further Review of FCC Rules.**

Continuing review of the Commission’s HAC rules is necessary to ensure that the needs of people with hearing loss are continually being met and that compliance with these rules continues to be practical in light of rapid technological advancements in hearing aid devices and wireless industry developments. Thus, the Commission should initiate a review of these rules in 2010 to determine whether and how they may need to be revised or extended. The 2011 requirements of the alternative proposal (as outlined above) should remain in effect until a review of the HAC milestones and FCC rules is complete and, if necessary, rule modifications are implemented (likely to be completed in 2012).

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19 For example, the Commission’s practice of accepting reports through industry associations such as ATIS should continue if those reporting elect to use such an approach.
I. Use of Newer Version of the Technical Standard.

The C63.19-2007 Standard has been balloted and passed by both C63™ and ANSI. The 2007 version of the standard is much more stringent than the 2006 version. To provide sufficient time for manufacturers to build to the new standard, the FCC should allow both the 2006 and 2007 versions to be used for HAC compliance through 2009 (following a similar public notice process that was used to announce the permitted use of the 2005 version of the standard).20 Beginning January 1, 2010, use of only the 2007 version of the standard should be permitted to satisfy the proposed alternative T-coil requirements.

Because the work of the accredited standards committee C63™ is ongoing, the Commission should delegate to the Chief of the Office of Engineering and Technology authority to authorize use of later versions of the C63.19 Standard as such versions are issued.

J. Industry Work Projects.

In addition to the modifications to FCC rules suggested above, AISP.4-HAC became aware of two additional HAC-related issues that need to be resolved but do not require FCC

20 The Commission is not required to seek additional notice and comment prior to adopting the AISP.4-HAC’s request that carriers and manufacturers be required to utilize the 2007 version of the C63.19 Standard beginning in January 2010. In 2003, the Commission delegated to the Chief of the Wireless Telecommunications Bureau (“WTB”), in coordination with the Chief of the Office of Engineering and Technology (“OET”), the authority to approve future versions of the standard to the extent that the changes do not raise major compliance issues. Section 68.4(a) of the Commission’s Rules Governing Hearing Aid-Compatible Telephones, Report and Order, 18 FCC Rcd 16753, par. 63 (2003). Indeed, in 2006, WTB and OET did precisely this when they approved the use of version 3.12 of the standard, finding that “the clarifications and improvements in the standard will advance the Commission’s objective of ensuring hearing aid compatibility for digital wireless phones.” Wireless Telecommunications Bureau and Office of Engineering and Technology Clarify Use of Revised Wireless Phone Hearing Aid Compatibility Standard, Public Notice, DA 06-1215, 2 (June 6, 2006). WTB and OET should take a similar approach here and issue a Public Notice declaring that either version 2006 or 2007 may be used through 2009, unless otherwise specified in the rules, but starting on January 1, 2010, only version 2007 may be used. Given that this proposal is the result of significant negotiation between the wireless industry and people with hearing loss and that the wireless industry has approved this proposal, modification of the version of this standard does not raise major compliance issues.
action at this time. First, consumers with hearing loss express difficulty conversing over their
digital phones because the volume level is perceived as insufficient. Accordingly, AISP.4-HAC
has agreed to study and make recommendations regarding audio output levels and volume
controls. Upon completion of this review, AISP.4-HAC will submit a proposal requesting
further modifications to the Commission’s HAC rules if it determines modifications are
necessary. Second, many people with hearing loss use immune hearing aids that work with
lower rated phones. Thus, to assist consumers in choosing a wireless device, the manufacturers
have agreed voluntarily to place the HAC ratings for all devices, including those rated “M1” or
“M2,” on their web sites. Modification to the FCC’s HAC rules is not required to implement this
proposal.

IV. Critical Timing

AISP.4-HAC urges the Commission to act expeditiously so that the industry can meet the
obligations by February 18, 2008, as set out in this consensus proposal. Equipment authorization
lead time has often been a critical pacing factor in the implementation of changes designed to
foster improved access to telecommunications services by those with hearing loss. Accordingly,
AISP.4-HAC urges expeditious action on this consensus proposal in order that these changes in
the rules can be effected with sufficient lead time for implementation by February 18, 2008.
Because this is a consensus proposal made in response to an FCC Public Notice and benefits
consumers, we urge the FCC to act quickly as an outgrowth of this proceeding.

Consistent with Section 1.415 of its rules, the Commission regularly utilizes expedited
notice and comment procedures when it finds such an approach would serve the public interest.
and Order, 19 FCC Rcd 5709, par. 51 (2004) (adopting an expedited comment cycle of ten days
for comments and seven days for replies); Service Rules for the 698-746, 747-762 and 777-792 MHz Bands, Report and Order and Further Notice of Proposed Rulemaking, FCC 07-72 (Apr. 27, 2007) (establishing a 21-day deadline for comments and a 28-day deadline for reply comments). Here, a shorter comment period is appropriate and reasonable because interested parties have already had the opportunity to participate in the development of the proposed rules and expedited adoption is essential given the imminent deadline. Indeed, the Commission could simply issue and publish in the Federal Register a public notice inviting expedited comment on the proposal set forth in these supplemental comments in order to satisfy any notice and comment requirements under 5 U.S.C. § 553. Such an approach has been used in other proceedings.  

Finally, in light of the limited amount of time, if necessary the Commission should also consider continuing to apply the HAC requirements in effect as of the date these comments are filed, until such time as the Commission adopts the requirements contained in this proposal. We expect that such action will be required for only a brief period of time.

V. Conclusion

In furtherance of the goal of affording people with hearing loss the means to achieve fuller use of electronic voice communications, Congress charged the Commission with adopting regulations that would yield a high measure of compatibility between hearing aids and telephones. The consensus proposal as detailed herein is the result of significant investigation and negotiation by the AISP.4-HAC and its members. As a result, all elements of this proposal,

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21 See e.g., Comment Sought on Intercarrier Compensation Reform Plan, Public Notice, DA 06-1510 (July 25, 2006), 71 FR 45510 (Aug. 9, 2006).

22 Thus, the Commission should continue to apply only the requirements of Sections 20.19(c)(1)(i), (c)(2)(i)(A) and (B), (c)(3)(i)(A) and (B), and 20.19(d), pending revision of Section 20.19 as proposed herein.
regardless of how small, are critical to its success. For these reasons, and the reasons discussed herein, AISP.4-HAC urges the Commission to fully adopt this proposal. If the Commission determines that it cannot adopt this proposal without further comment, AISP.4-HAC requests that the Commission promptly provide notice of and seek comment on the full proposal.

Respectfully submitted,

ATIS on behalf of AISP.4-HAC

By:

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Dated:  June 25, 2007
Attachment A

In 2003, the Commission adopted the American National Standard for Methods of Measurement Between Wireless Communications Devices and Hearing Aids ANSI C63.19-2001 (“C63.19 Standard”) for measuring and rating the compatibility of wireless devices with hearing aids. The Commission adopted this standard to provide the technical requirements for its Report and Order establishing mandatory requirements for wireless communication devices to be hearing aid compatible. This standard is intended to apply to all types of hearing aids with acoustic output, including behind-the-ear (BTE), in-the-ear (ITE), in-the-canal (ITC) and completely-in-the-canal (CIC) types.

The C63.19 Standard provides a uniform method for measuring the radio frequency (RF) immunity and telecoil coupling strength of hearing aids, as well as the RF emissions and telecoil coupling strength of wireless devices. The measurements obtained from these tests are then converted to a microphone (M) rating and a telecoil (T) rating. The ratings can then be used to predict the compatibility of a particular wireless device and hearing aid pair.

M ratings (formerly known as the U rating) as determined under the C63.19 Standard provide a measure of how well wireless handsets are likely to perform when used with hearing aids that utilize a microphone for picking up sound from the handset speaker. The higher the M rating, the less likely the handset is to produce electromagnetic interference in the hearing aid.

T ratings (formerly known as the UT rating) as determined under the C63.19 standard provide a measure of how well wireless handsets are likely to perform when used with hearing aids that utilize an inductive pickup, known as a telecoil or T-coil, for receiving sound from the handset. The advantage of a T-coil is that it avoids extraneous noise that would be picked up by a microphone.

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1  See Section 68.4(a) of the Commission’s Rules Governing Hearing Aid-Compatible Telephones, Report and Order, 18 FCC Rcd 16753 (2003).

2  47 C.F.R. § 20.19(c)(1)(ii) and (3)(ii) (2006) require 50 percent of all phone models offered by digital wireless phone manufacturers and service providers to meet the "U3" (now redesignated "M3") performance level for acoustic coupling established in the C63.19 Standard based on the total number of unique digital wireless phone models they offer throughout the nation.

3  47 C.F.R. § 20.19(c)(3).

4  47 C.F.R. § 20.19(d)(2).
## Attachment B

Comparison of Current HAC Mandate versus Industry-Consumer Consensus Proposal

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<th>HAC ORDER - M REQUIREMENTS</th>
<th>ATIS AISP.4 PROPOSED - M REQUIREMENTS</th>
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<td>5 or 26%</td>
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<th>ATIS AISP.4 PROPOSED - T REQUIREMENTS</th>
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<td>NON de minimis Manufacturers</td>
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### REFRESH REQUIREMENTS

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<td>Tier 1 Carriers</td>
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<td>NON de minimis Manufacturers</td>
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<td>1/2 rounded up</td>
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§ 20.19 Hearing aid-compatible mobile handsets.

(a) Scope of section. This section is applicable to providers of Broadband Personal Communications Services (Part 24, Subpart E of this chapter), Cellular Radio Telephone Service (Part 22, Subpart H of this chapter), and Specialized Mobile Radio Services in the 800 MHz and 900 MHz bands (included in Part 90, Subpart S of this chapter) if such providers offer real-time, two-way switched voice or data service that is interconnected with the public switched network and utilizes an in-network switching facility that enables the provider to reuse frequencies and accomplish seamless hand-offs of subscriber calls. This section also applies to the manufacturers of the wireless phones used in delivery of these services.

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

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

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

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

4. Manufacturers must certify compliance with the test requirements and indicate the appropriate rating or ratings for the wireless phone as set forth in § 2.1033(d) of this chapter; and
(5) All factual questions of whether a wireless phone meets the technical standard of this subsection shall be referred for resolution to the Chief, Office of Engineering and Technology, Federal Communications Commission, 445 12th Street SW, Washington, D.C. 20554.

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

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

(i) Ensure at least thirty-three (33) percent of its handset offerings to service providers for each air interface offered comply with § 20.19(b)(1) not later than February 18, 2008; and

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

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

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

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

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

(B) For manufacturers that produce three total HAC models per air interface, at least one new M3-or-better model shall be introduced every other calendar year; and,
(C) If a manufacturer introduces no new models in a calendar year, no refresh of M3-or-better models shall be required.

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

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

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

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

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

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

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

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

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

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

   (ii) Ensure that at least twenty-five (25) percent of its handset offerings to service providers in that air interface comply with § 20.19(b)(2) not later than February 18, 2010; and
(iii) Ensure that at least thirty-three (33) percent of its handset offerings to service providers in that air interface comply with § 20.19(b)(2) not later than February 18, 2011.

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

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

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

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

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

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

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

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

(e) De minimis exception.

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

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

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

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

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