

Before the  
Federal Communications Commission  
Washington, DC 20554

In the Matter of )  
)  
WIRELESS ) WT Docket No. 15-285  
TELECOMMUNICATIONS BUREAU )  
REQUESTS COMMENT ON THE )  
HEARING AID COMPATIBILITY )  
TASK FORCE'S FINAL REPORT )  
AND RECOMMENDATION )  
)

Comments by Janice S. Lintz

May 7, 2023

**Executive Summary:**

The Federal Communications Commission (FCC) should require telecoil technology in 100% of all mobile devices for hearing aid compatibility (HAC) and mandate a timeline for compliance.

**The Background**

In 2014, I alerted key FCC staff that Hearing Aid Compatibility (HAC) would arise. It was foreseeable that Apple would attempt to control HAC after watching the *Steve Jobs* film and seeing how Apple used closed systems to control and limit consumers' choices.

Fast-forward to 2016, when Apple and other companies sought the FCC's permission under FCC Chairman Tom Wheeler to do what I predicted. They wanted to remove the telecoil from mobile devices. My Comment<sup>1</sup> advised the FCC that:

Apple [sought] to "lighten the load" on its products to minimize costs and maximize profits, and it constantly eliminates circuitry it believes to be expendable. (The new MacBook now only has only one USB portal.) Eliminating the telecoil permits Apple to make space for the MFi and cut costs.

As I noted in my Comment,

"[e]liminating telecoil receptivity on cell phones will likely lead to the elimination of telecoils in US hearing aids, which will, in turn prevent hearing induction loops from being used for communication access, including at Apple's Genius Bars, transportation, theaters, museums, and other retail operations...Despite its seeming concern for hearing aid innovation, Apple is trying to ensure that it controls the innovation by implementing a proprietary closed system that is incompatible with hearing access systems around the world, including hearing induction loops."

At the time, I noted that Apple refused to install induction loops in its retail operations. The stores now use portable induction loops, but Apple refuses to add signage indicating the induction loops' availability. So, while Apple seeks to eliminate the telecoil and thereby claim induction loops are unnecessary, Apple offers induction loops in its retail locations. (Below is a photo from its Fifth Avenue, New York store.)



In 2020, corporations brought up the topic again under FCC Chairman Ajit Pai. I raised alarms again, saying in my Comment<sup>2</sup>:

HAC is confusing and opens the door for a company to use proprietary technology...this rule is a backdoor workaround for the FCC's previous denial

under a former FCC Commissioner. "HAC" designation misleadingly implies that all phones with such a designation work with all hearing aids, when the cell phone only works with a partnered Bluetooth hearing aid, proprietary technology or a telecoil. "HAC" will create confusion, because people will not know which technology the phone uses. Telecoil-accessible phones are universally HAC...The ear with the T is used and known globally as telecoil compatible with hearing aids and cochlear implants. The symbol is used globally in museums, theaters, airports to name but a few. Please do not introduce another symbol to create confusion. Plus, the logo overcomes language barriers, which is critical in an emergency. There is no need to create a new symbol that requires knowing English and deciphering what Hearing Aid compatible means.

The FCC's decision will have ripple effects on the hearing aid industry, which is less regulated. The FCC, not delineating the T-coil as HAC, will impact and create a free-for-all with the hearing aid market permitting every manufacturer to use proprietary technology. Using patented technology defeats the point of this ruling.

I then augmented my 2020 Comments<sup>3</sup>:

CTIA recommended using the Global Accessibility Reporting Initiative (GARI) as a search tool to determine which cell phones are T-coil compatible.

Here we are in 2023, revisiting the same topic with another FCC commissioner. Companies are trying to take another bite at the "Apple" at the expense of people who are hard of hearing.

In 2022, The European Union (EU) Digital Markets Act (DMA) Article 6(7)<sup>4</sup> and Article 7 mandate "effective interoperability" in Europe, which could serve as a standard for the FCC. In this regard, the telecoil facilitates interoperability, whereas proprietary Bluetooth technology does not.

## **Issues**

The Comment analyzes the Wireless Telecommunications Bureaus' Request for Comment on the Hearing Aid Compatibility Task Force's Final Report and Recommendation for the Federal Communications Commission (FCC) to change the definition of Hearing Aid Compatibility and the Timeline for Compliance.

## **1-Bluetooth compatibility is not a substitute for telecoils and should not replace telecoil technology.**

- Bluetooth vs. Telecoil Technology

People who are hard of hearing prefer telecoil<sup>5</sup> technology over Bluetooth technology. A telecoil connects electromagnetically, making it more reliable, and it doesn't burn through expensive batteries like Bluetooth. Further, companies like Apple use proprietary Bluetooth technology. Changing phones or hearing aids may require replacing the other due to pairing issues. Telecoil technology is consistent across devices and does not require changes or updates.

Bluetooth technology isn't available in public places or globally. While there are potential future options like Auracast,<sup>6</sup> which uses the Bluetooth standard, works with all devices, and doesn't reportedly consume significant battery life, no company currently supports it. However, it is something to watch.

Bluetooth is also reportedly not allowed in secure areas like the State Department. Telecoil technology does not have such restrictions. The US Supreme Court and, reportedly, the vice president's residence have induction loops.

- Other Federal Agencies

Other Federal agencies use telecoil technology.

For example, the Veterans Affairs (VA), as per the Office of the Secretary, mandates "contracted vendors to provide at least two (2) hearing aid models that include telecoil capabilities 'where possible.'"

The Department of the Interior/National Park Service (NPS), a federal agency, recommends induction loops in its Programmatic Accessibility Guidelines for National Park Service Interpretive Media<sup>7</sup> to ensure full spectrum hearing access in its parks. Though it doesn't say so directly, the NPS thus implies that it supports telecoil usage via an induction loop.

The Pentagon, a federal agency, required the Intrepid Sea, Air & Space Museum (<https://janiceslintz.files.wordpress.com/2023/03/induction-loops-globally.pdf>: please scroll down to Museums) to adopt induction loops in the space shuttle exhibit to receive the space shuttle. Though it doesn't say so directly, the Pentagon thus implies that it supports telecoil usage via an induction loop.

The United States Holocaust Memorial Museum (<https://janiceslantz.files.wordpress.com/2023/03/induction-loops-globally.pdf>: please scroll down to Museums), a quasi-federal museum, offers induction loops. Though it doesn't say so directly, this Museum thus implies that it supports telecoil usage via an induction loop.

The FCC's removal of the telecoil requirement will have implications beyond its mandate since the FDA doesn't require telecoil inclusion in hearing aids. The FCC is helping to maintain the availability of telecoils, which people who use hearing aids and cochlear implants need.

- States support the telecoil.

In 2015, New York State reached a settlement agreement with Kinney Pharmacy for failing to implement induction loops in its pharmacies. New York State is one of approximately six states (Arizona, Delaware, Florida, Rhode Island, and Utah) requiring audiologists to discuss telecoils with patients.<sup>8</sup>

In 2020, New Jersey introduced A5464/S3660, now A1487 in 2022-2023, proposing to "require [] induction loop listening system installation in certain buildings open to public upon new construction or substantial renovation."<sup>9</sup>

In 2022, Senator William N. Brownsberger and I cosponsored Bill S.1969<sup>10</sup> in the Massachusetts Senate, aiming to add induction loops to POPA's service counters.

In 2023, New York State introduced A06432<sup>11</sup> to mandate induction loops at service counters in buildings. Maryland passed a law, and Indiana and Washington State are likely to follow.<sup>12</sup>

The Los Angeles Commission on Disability sent a letter to Mayor Garcetti in 2021, recommending that:

City vendor contracts and agreements contain language requiring accessible communication for programs and facilities and that public facilities and transportation projects (whether new developments or refurbishing) include Induction Loop Technology (ILT) wherever a public announcement system or other audio system will be used regularly to communicate information to the public.<sup>13</sup>

Consumers are demanding that states enact legislation to require induction loop technology, which they need a telecoil to use, despite companies asking the FCC to remove the telecoil requirement. Companies want to force consumers with hearing loss to purchase pricey or proprietary devices which benefit the companies and not people with hearing loss.

- Internationally

Removing the telecoil requirement by the FCC will have a global impact on the ability to access key announcements, theater, and critical information. For example, the International Code Council mandates that ticket windows at stadiums and arenas have "at least one window at each location shall have an assistive listening system" under ICC#1108.2.7.2.<sup>14</sup> The New York Yankees and Mets implemented an induction loop system at their ticket windows in compliance with this requirement, ensuring that people who are hard of hearing can access the information they need to enjoy the game.

Further, other countries (<https://janiceslintz.files.wordpress.com/2023/03/induction-loops-globally.pdf>) use telecoil and induction loop technology. (Please scroll down.) The photo montage documents the widespread use of induction loops in various settings globally, including airports, banks, conference rooms/classes, entertainment/stadiums, elevators, ferries, hotels, museums, pharmacies, rail/trams, and taxis, among others. However, I never saw Bluetooth available in any setting as I traveled to 144 UN countries and 203 countries, territories, and unrecognized nations.

Again, the EU DMA<sup>15</sup> clarifies the need for interoperability whether it is for digital marketing or hearing aids.

## **2- Standards bodies aren't neutral, and people with hearing loss don't have time to participate in these committees' gratis.**

People with disabilities have neither the time nor the desire to spend their lives submitting comments, attending meetings, and testifying. My Comments are late since I first had to address my Harvard Kennedy School finals. Instead of seeing friends before graduation, I am stuck drafting comments because if I don't, people who are hard of hearing may lose the telecoil access on their cell phones.

Further, there is a misperception that Standards bodies are neutral and sufficiently knowledgeable. That is inaccurate. For example, the American Society of Mechanical Engineers (ASME) 's committee to examine elevator access didn't have any

committee members with or knowledgeable about hearing loss. As a result, the proposed elevator access recommendation didn't include induction loops or keyboards for people who are deaf or hard of hearing. Moreover, the committee had no idea the technology existed even though elevators globally offer induction loop technology. (<https://janiceslintz.files.wordpress.com/2023/03/induction-loops-globally.pdf>: See the elevators section.)

ASME is not alone. For example, one International Code Council (ICC) committee meets weekly for over a year to address signage issues. Few people can devote that kind of time to signage. If people with disabilities fail to attend, testify, or submit comments, they may not receive the necessary access under the ADA.

In addition, committees will not disclose who or how many people on their committees have what disability, if any. For example, the ICC initially claimed it was a Health Insurance Portability and Accountability Act (HIPAA) violation to disclose the committee members' disabilities, not understanding that HIPAA applies solely to medical settings. Notwithstanding the non-applicable HIPAA assertion, the committee will not reveal who, if anyone, has a hearing loss or their expertise. I understand that only one person has a hearing loss as their primary disability. Two other members developed hearing loss after having another disability. They are strong advocates for their initial disability and not for hearing loss.

Further, ICC sells its recommendation, which means they are motivated by profit and are not neutral. And committee members are unpaid, limiting the participants to industry members or retired older adults.

There is a misperception that having hearing loss makes someone an expert on hearing loss. For example, I was surprised to learn that some individuals with hearing loss, appointed by the President to the US Access Board for their disability expertise, were unfamiliar with how to use their hearing aids and unaware of induction loops. Consider how few people read their cell phone manuals and know how to operate their mobile devices fully. Hearing aids are similar.

Further, people tend to lump individuals who are deaf and hard of hearing together despite their different needs. The population covers a wide spectrum, ranging from mild to profoundly deaf. However, people who are deaf and hard of hearing people are often viewed as a single population group despite their very different communication needs based on factors such as degree of hearing loss and age of onset. There is a misperception that interpreting provides universal access even though most people with hearing loss don't know sign language. In the United States, "[a]

approximately 48 million Americans have some degree of hearing loss, and<sup>16</sup> less than two million use ASL.<sup>17</sup> However, the data is 50 years old and does not include approximately 736,900 people who received cochlear implant devices worldwide since December 2019.<sup>18</sup>

The National Association for the Deaf and TDI (Telecommunications for the Deaf and Hard of Hearing, Inc.) promote themselves as organizations advocating for the full deaf and hard of hearing population, but they primarily focus on American Sign Language and captions. They do not have expertise in telecoils and looping. This can be misleading to those unfamiliar with the distinctions within the communities of deaf and hard of hearing populations.

Standard bodies may be unreliable sources of information since they sell their knowledge, and their committees may not contain sufficiently knowledgeable people. A committee's unwillingness to disclose its members' expertise is concerning and telling. Further, agencies should rely on people who are hard of hearing and not who are deaf and use ASL.

### **3) 100% hearing aid compatibility is achievable, and a timeline is needed.**

100% hearing aid compatibility is needed, despite the unwillingness of certain companies to prioritize this access. Instead, companies want to sell their proprietary technology.

Consumers who are hard of hearing need the FCC's help to ensure that they have access to telecoil technology on all devices, just like they have access to captions on all television sets.

The FCC needs to mandate a firm and a clear timeline to implement the mobile device telecoil technology. The companies made it abundantly clear that they would not comply unless required. Consumers shouldn't need to respond repeatedly to the same telecoil technology removal request. While companies have significant resources to fund legal teams, consumers do not. It is unfair and burdensome to consumers to require them to keep responding to these requests.

## **Conclusion**



Telecoil technology in mobile devices is critical to enable people who are hard of hearing to participate fully in society. Thus, the FCC must maintain the telecoil requirement in all mobile devices. Telecoils don't have connectivity or security issues, don't burn through pricey batteries, aren't proprietary, and are used globally in various settings beyond mobile devices. Multiple federal agencies, states, and countries support telecoil inclusion. Only companies that seek to make money by selling proprietary technology and forcing consumers to change hearing aids and mobile devices each time they change one or the other (to pair them to the proprietary setup) seek to eliminate it. The FCC's purpose is to protect consumers, not companies. The FCC should adopt a similar interoperability<sup>19</sup> standard like the EU.

Crucially, in an emergency, people with hearing loss cannot always decide which phone to call for assistance or potentially say goodbye to a loved one. I often think of the calls made on 9/11 as the plane crashed into the building or ground. Imagine if the person couldn't say goodbye because their hearing aid or cochlear implant didn't pair with the phone available to them.

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<sup>1</sup> "16-0226-Fccapplecell.Pdf," accessed May 7, 2023, <https://janiceslintz.files.wordpress.com/2016/05/16-0226-fccapplecell.pdf>.

<sup>2</sup> "Fcchacfiling-1.Pdf," accessed May 7, 2023, <https://janiceslintz.files.wordpress.com/2020/04/fcchacfiling-1.pdf>.

<sup>3</sup> "Additional-Comments-on-Why-the-Fcc-Should-Require-a-Telecoil-and-Not-Hearing-Aid-Compatible-Rating-for-Cell-Phones.Pdf," accessed May 7, 2023, <https://janiceslintz.files.wordpress.com/2020/09/additional-comments-on-why-the-fcc-should-require-a-telecoil-and-not-hearing-aid-compatible-rating-for-cell-phones.pdf>.

<sup>4</sup> "Regulation (EU) 2022/1925 of the European Parliament and of the Council of 14 September 2022 on Contestable and Fair Markets in the Digital Sector and Amending Directives (EU) 2019/1937 and (EU) 2020/1828 (Digital Markets Act) (Text with EEA Relevance)," 265 OJ L § (2022), <http://data.europa.eu/eli/reg/2022/1925/oj/eng>.

<sup>5</sup> "Telecoil-Article-Veryfinal-9-12.Jpg 852×1,110 Pixels," accessed May 7, 2023, <https://janiceslintz.files.wordpress.com/2014/11/telecoil-article-veryfinal-9-12.jpg>.

<sup>6</sup> "Auracast | Bluetooth® Technology Website," accessed May 8, 2023, [https://www.bluetooth.com/auracast/?gclid=Cj0KCQjwIumhBhClARIsABO6p-wvOaCPd0sFdQ37tv6jArnPmvk9t9HUKsNB8vrAzxrTt-ej7imAL0aAqkzEALw\\_wcB](https://www.bluetooth.com/auracast/?gclid=Cj0KCQjwIumhBhClARIsABO6p-wvOaCPd0sFdQ37tv6jArnPmvk9t9HUKsNB8vrAzxrTt-ej7imAL0aAqkzEALw_wcB).

<sup>7</sup> "19-10-Npsguidelines.Pdf," accessed May 8, 2023, <https://janiceslintz.files.wordpress.com/2020/08/19-10-nps-guidelines.pdf>.

<sup>8</sup> Stefani Kim, "Letters: Comments on State Telecoil Legislation," *The Hearing Review* (blog), March 26, 2019, <https://hearingreview.com/hearing-products/accessories/assistive-technologies/letters-comments-state-telecoil-legislation>.

<sup>9</sup> "NJ Legislature," New Jersey Legislature, accessed April 9, 2023, <https://www.njleg.state.nj.us/bill-search/2020/S3660>.

<sup>10</sup> "Bill S.1969," accessed April 9, 2023, <https://malegislature.gov/Bills/193/SD923>.

<sup>11</sup> "Bill Search and Legislative Information | New York State Assembly," accessed April 15, 2023, <https://nyasembly.gov/leg/?bn=A6432>.

<sup>12</sup> "What Is a Hearing Aid Telecoil and Why Would I Want One?," *Healthy Hearing*, February 14, 2023, <https://www.healthyhearing.com/report/45927-Hearing-aids-in-loop>.

<sup>13</sup> Myrna Cabanban et al., "BOARD OF COMMISSIONERS," n.d.

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<sup>14</sup> “12-Ibcsprtsstadium.Pdf,” accessed April 9, 2023, <https://janiceslintz.files.wordpress.com/2015/06/12-ibcsprtsstadium.pdf>.

<sup>15</sup> Regulation (EU) 2022/1925 of the European Parliament and of the Council of 14 September 2022 on contestable and fair markets in the digital sector and amending Directives (EU) 2019/1937 and (EU) 2020/1828 (Digital Markets Act) (Text with EEA relevance).

<sup>16</sup> “HLAA\_HearingLoss\_Facts\_Statistics.Pdf,” accessed February 3, 2023, [https://www.hearingloss.org/wp-content/uploads/HLAA\\_HearingLoss\\_Facts\\_Statistics.pdf](https://www.hearingloss.org/wp-content/uploads/HLAA_HearingLoss_Facts_Statistics.pdf).

<sup>17</sup> “ASL\_Users.Pdf,” accessed April 8, 2023, [https://storage.googleapis.com/gal-media/documents/Research-Support-and-International-Affairs/ASL\\_Users.pdf](https://storage.googleapis.com/gal-media/documents/Research-Support-and-International-Affairs/ASL_Users.pdf).

<sup>18</sup> “What Are Cochlear Implants for Hearing? | NIDCD,” March 24, 2021, <https://www.nidcd.nih.gov/health/cochlear-implants>.

<sup>19</sup> “Regulation (EU) 2022/1925 of the European Parliament and of the Council of 14 September 2022 on Contestable and Fair Markets in the Digital Sector and Amending Directives (EU) 2019/1937 and (EU) 2020/1828 (Digital Markets Act) (Text with EEA Relevance),” 265 OJ L § (2022), <http://data.europa.eu/eli/reg/2022/1925/oj/eng>.