



The 14,000-seat Breslin Center,
Michigan State University.
Photo: Derrick L. Turner/
Michigan State University

HEARING LOOPS

Assistive listening systems that are actually used.



A stage shot of a performance at the
Albuquerque Little Theater.
Photo: Albuquerque Little Theater



The Albuquerque City Council Chamber.
Photo: Stephen Frazier



Temporary assistive listening system installation at
Taylor Ranch Community Center, Albuquerque NM.
Photo: Stephen Frazier

BY STEPHEN O. FRAZIER

After years of neglect, the federal government recognized the special auditory needs of the hard of hearing in the Americans With Disabilities Act (ADA) of 1990 with a requirement that any public venue where audio amplification is provided must also feature an assistive listening system (ALS) accessed by receivers and headsets. They expanded on the mandate when the ADA was updated in 2010 with a requirement that 25% of the receivers for that ALS feature neck loops rather than headsets. Those neck loops interact with small copper coils (telecoils) found in all current cochlear implants and more than 70% of all current hearing aid models on the market to provide the user with a direct, wireless connection to the mics in an ALS. The ADA revision also allows a 25% reduction in the number of receivers required if the ALS is an Audio Frequency assistive listening system (AFILS) rather than an FM or IR system.

Result Of Advocacy

This change was largely the result of advocacy on the part of various support organizations, such as the Hearing Loss Association of America (HLAA), the Association of Late Deafened Adults (ALDA), the AG Bell Association for Deaf and Hard of Hearing, Telecommunications for the Deaf and Hard of Hearing (TDI) and others, for assistive listening systems that would actually be used by those with hearing loss.

With the addition of the neck loop requirement in the 2010 revision, there were special provisions for AFILS (usually called hearing loops) that effectively recognize that this technology is the most user-friendly ALS because it frees most users from borrowing equipment and also from realizing too late to borrow one, that a receiver/headset/neck loop is even needed. Accessing the ALS by simply touching a button on a hearing aid or cochlear implant makes loops the preferred system for almost any hard-of-hearing person in any large, public venue. An added benefit for those using telecoils, the sound is customized by their hearing aids to match the pattern of their audiogram rather than the "one size fits all" sound of earphones that lack sufficient power in the upper frequencies for most with hearing loss. For those without telecoils, the old option of a receiver/headset is still available.

Research by hearing loop advocates has found that hearing loops are much more heavily used by the hard of hearing than are systems that require all users to borrow a receiver, whether it be equipped with a headset or a neck loop. Churches have report-



Las Placitas Presbyterian Church, Placitas NM.
Photo: Peter Frazier-Koontz

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Grand Opera House, Oshkosh WI.
Photo: Max Hermans

edly even removed FM or IR systems (or discontinued repairing them) after members of the congregation switched over to recently installed hearing loops. Other churches have reported that people who had quit attending services have come back after learning a loop had been installed. On experiencing hearing loops elsewhere, it has not been uncommon for individuals to donate the funds to get a loop installed in their own church.

Hard-of-hearing visitors to a venue may not realize until too late that they are going to need a receiver and headset or neck loop, and once the proceedings begin, it's too late to go in search of one. They may have hygienic concerns in regard to the loaner headsets, object to calling attention to their disability by donning a headset, and most find it a real inconvenience to have to seek out a source to borrow and then return a receiver...inconvenient enough that they don't borrow a receive and thus don't use the ALS. Ergo, the preference of most hearing aid and cochlear implant users for the "touch of a button" loop/telecoil technology now sweeping the country.

There is much evidence that too many hearing care providers do not counsel their clients on the telecoil option when fitting them with hearing aids, so advocates for the technology have now moved to various state efforts to mandate that hearing care providers inform their clients of the option of telecoils in their hearing aids that will allow them to access an assistive listening system without removing their hearing aids and donning a headset. Arizona, Florida, New York and Rhode Island already had such laws on the books; a similar requirement became law in Utah in March of 2015 and a bill is scheduled to be heard by the New Mexico legislature shortly. The New Mexico effort is a joint initiative by the state's three Hearing Loss Association of America chapters and the New Mexico Commission for Deaf and Hard of Hearing persons entitled the Committee for Communication Access, a 10-member group drawn from hearing care users from around the state whose website is www.ccanm.homestead.com/home.html.

Looped Facilities

In New York City, several Broadway theaters have been looped, all subway information booths have been looped and many taxicabs now have loops. The 14,000-seat Breslin Center basketball arena at Michigan State



St. Michael and All Angels Episcopal Church,
Albuquerque NM.
Photo: Michael Langner

University has been looped, and some lecture halls at Iowa State University are being looped. The Albuquerque Little Theater has been looped, as has the Oshkosh WI

historic Grand Opera House, and libraries throughout the country are installing loops in their meeting rooms.

Thousands of places of worship have been looped in the last several years. Where there was once one manufacturer of loop drivers in the US, there are now several, and the number of distributors of European-sourced drivers has likewise expanded. A Google search for hearing loops will bring up a plethora of websites for local or statewide looping campaigns run by advocates for this technology. Loops are happening!

Many AV engineers may look at assistive listening systems from the perspective of easy installation rather than from the user's perspective, and encourage venues to install FM or IR systems that will, quite frankly, get little use. They may even attempt to direct those inquiring about loop systems to FM or IR, which has resulted in many advocates for those with hearing loss to turn to the small, independent audio frequency induction loop system (AFILS) installers cropping up all over the US.

With the advent of national looping campaigns by the Hearing Loss Association of America, SERTOMA and others, plus a growing number of community efforts by concerned citizens who live with a hearing loss, AV firms could be losing business to startup looping installation companies for no good reason other than a lack of awareness of the preferences of the hard of hearing, the real advantages of AFILS and the knowledge required to properly install the systems.

Any firm without someone on the staff who is already familiar with AFILS and trained to install these systems would do well to seek out one of the many manufacturers/distributors of the equipment and sign up someone on their staff for the training offered in this technology. With this knowledge, they will be able to offer clients an alternative to FM or IR, and it will be a system that the hard of hearing will actually use. ☐

Editor's Note: "Sound Advice" columnist Peter Mapp has discussed this issue in depth, most recently in January 2016.

SIGN AGE: STREAMING STRATEGIES

(continued from page 13)

so I requested that company President Philip Lenger share some of the insights gained from working on this project. His team also provided key considerations (see sidebar) for live-stream URL to DOOH screens. "The goal was to utilize technology, creativity and innovation to bring Givenchy (a French fashion house) to New York City for the first time during Fashion Week," said Lenger. Nearly 4000 people were in attendance for the live show at Pier 26 in Manhattan. "In an effort to widen that viewership base and leave a lasting impression, the brand wanted to showcase itself simultaneously in Times Square," noted Lenger.

Lenger's creative team obtained graphics from Givenchy's Paris marketing team to place underneath the live video feed. "In case internet connectivity is lost, or if the event producer/director has to cut from the live feed due to questionable content, these graphics serve as backup visuals and can be instantly displayed," he explained.

After quality checking the files to ensure that technical specs were met for correct playback, the team met with

streaming video service provider Freecaster and the video production providers to finalize placement of the video feed windows. "It was important to the client that the video not stretch or skew, but, rather, be cropped to fit the windows," Lenger noted. "There was also a preference for clean feeds for this live stream to avoid any broadcast graphics that could appear too grainy or too small to be recognizable."

A 10- to 30-second delay was provided so the Show+Tell team could cut the live stream if necessary. A conference bridge was open for all parties involved (production team, Freecaster, Show+Tell, Givenchy) to provide the quickest response times to address any issues.

The content was approved/moderated by Givenchy and by Show+Tell for Express. There were no advertisements or commercials displayed during the live stream. "Proof-of-play reports, along with video and photos, were provided after the event concluded for the client's team in Paris," said Lenger.

When streaming live to multiple screens, maintaining synchronization

between audio and video is a frequent issue. Some companies are offering innovative solutions to address this challenge. Cabletime, for instance, has upgraded its MediaStar IPTV distribution systems to provide adaptively synchronized playback of live video/audio streams across multiple displays.

The expectation of "video everywhere" is fueling the demand for live video on DOOH screens. This might be a good time to take a fresh look at your clients' signage systems to see how you can enhance them with the display of live streams of interest to their various audiences. To maximize chances for a successful upgrade, it's always helpful to bone up on the latest developments in streaming applications and practices. The Content Delivery Summit on May 9, followed by Streaming Media East (May 10-11) at the New York Hilton Midtown bring together companies involved in all aspects of streaming media from capture to delivery. Streaming Media's website (www.streamingmedia.com) is also a good starting point for technical and application info. ☐