


# UK AND USA: WORLDS APART FOR PEOPLE WITH HEARING LOSS



BY DAVID G. MYERS, PH.D.

Imagine a world in which hearing aids could serve not only as microphone amplifiers, but also as customized loudspeakers for the broadcast of television, PA systems and telephone sound – to both ears. Increasingly, that is the real world in Great Britain. Although the United States lags, momentum toward that future is gradually growing at home as well as abroad.

I am writing en route home from a meeting in London, where I have once again marveled at the United Kingdom's accessibility for those of us with hearing loss. Let me take you on a guided tour of my hearing-friendly visit to London.

On my first afternoon, I venture out for a walk to the Buckingham Palace gift shop, where one of the checkout counters displays a prominent sign indicating that hearing aid wearers may activate their telecoils (T-coils) to receive the cashier's enhanced voice via a small counter hearing loop (a magnetic induction

loop). Then I amble into Westminster Cathedral, where a Saturday afternoon mass is in progress. The priest's voice is lost as it bounces around that ancient and vast space. But no problem; I activate my T-coils and suddenly, like Wi-Fi transmitting to my laptop, the priest's voice is broadcast with crystal clarity into my ears via my hearing aids, which have been transformed into in-the-ear loudspeakers. There's no need to seek, fuss over and wear a hearing aid incompatible receiver and headset and no need for the Cathedral to stock such, because virtually all of the hearing aids worn by Brits have

T-coils.

The next morning I worship at Westminster Abbey. Again, the sung and spoken words are an indecipherable verbal fog until I switch on my T-coil receivers and, with perfect convenience and invisibility, deliciously clear sound is wirelessly transmitted via my hearing aids to what seems like the center of my head.

On ensuing evenings, I venture to a Sainsbury grocery store to pick up cold medicine. As I check out, taking my cue from the signage, I activate my T-coils and experience the clerk's amplified voice.

Later, a taxi takes me to within

**“The whole of the church is served by a hearing loop. Users should turn their hearing aids to the setting marked ‘T.’”**

*~ The first sentence of program for the 50th anniversary celebration of the Queen's coronation at Westminster Abbey in 2003.*

**London taxis are equipped with induction loops.**

Photo courtesy of David Myers



half a block of a theater. When the driver, who is on the other side of a plastic screen, gives me walking directions, I hear clearly because all London taxis have induction loops that broadcast the driver's voice to T-coil-equipped hearing aids. As I pay the driver, I can't resist asking where his microphone is. With a smile, he points to the built-in mini mic right next to the visor in front of his face.

These happy experiences take me back a decade to when I first experienced induction loop technology while worshipping at Scotland's Iona Abbey. When I first entered, the sound was unintelligible to my hard of hearing ears. I saw a hearing assistance sign on the wall indicating "T" and my wife urged me to turn on the T-coils in my new hearing aids. It was a moment I shall never forget. In an instant, the fog cleared. It was as if the speaker was inside my head. It was an experience of pure joy.

In our subsequent annual sojourns in the U.K., I have seen hearing aid compatible assistive listening progressively spreading throughout the country. It's not yet everywhere but I now find it in places ranging from bank, train and post office teller windows, to virtually all cathedrals and churches with PA systems, to

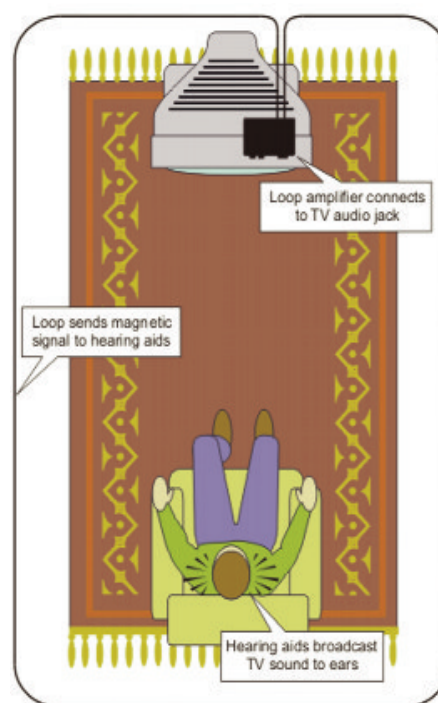
auditoriums and symphony halls, to an airport waiting area (where indecipherable announcements regarding our delayed flight home became sharp and clear when I activated my T-coils).

When my plane lands in the U.S., I will be returning to a world without such support for people with hearing loss. Our churches, theaters and auditoriums typically offer hearing aid incompatible assistive listening. Although these infrared or FM transmission systems work reasonably well and audio firms find them easy to install, the reality is that most sit unused in closets. One manager at my city's biggest theater complex estimated that they are used only about once per month per theater. A past president of Michigan's Hearing Loss Association told me that after her city's biggest public auditorium installed a typical hearing aid incompatible system, she became the first person to use it – one year later. They had to take it out of the box just for her.

In my field of psychology we call this a "human factors design problem." Surely we can do better!

How can we better utilize technology so that real people can readily and easily access it? Better

hearing can begin at home with a small loop amplifier. I connected one to my TV's audio output and encircled my seat with the accompanying thin loop wire by stapling the wire to the ceiling studs in the basement below. (The wire can also be run under carpet or around the baseboard and doors.) The welcome effect was to put the TV loudspeakers right inside my ears, delivering sound at a volume that I control with a turn of a dial. Moreover, since my hearing aids have a mic and T-coil (M/T) switch allowing the microphones to function simultaneously, if I wish, I can also hear the phone ring or my wife's conver-





**At Canterbury's train station, a sign above the ticket window alerts passengers with hearing loss to activate their hearing aid telecoils.**

Photo courtesy of David Myers

two FM boots and a hand-held receiver – and FM boots only work with behind-the-ear aids, which many people don't have.

In the U.K., Scandinavia and Australia, today's modern loop systems harness the same magnetic-transmission-to-telecoil technology that today's hearing aid compatible phones also use. Unlike competing technologies, this is assistive listening that can work in transient venues, such as airports or at subway windows. It is inconspicuous, effortless and hassle free. And though it costs a bit more to install (one must encircle the audience with a wire), the facility ultimately saves the cost of purchasing, maintaining and replacing those (mostly unused) receivers and headsets.

To test the concept here in the U.S., we undertook a community initiative that led to the looping of nearly all the major churches and public facilities of my community, Holland, Mich., and its adjacent sister town of Zeeland. Almost immediately, our community's audiologists began equipping nearly all of their newly sold aids with T-coils.

"Never in my audiology career has something so simple helped so many people at so little cost," reported the owner of the largest practice.

The results have been so gratifying (my own church within a year went from one user of the old headsets to ten delighted users of the new hearing aid compatible system) that the technology has spread like wildfire to dozens of churches and public venues in surrounding West Michigan cities, including the new convention center and symphony hall in nearby Grand Rapids and soon the lobbies and gate areas of the Gerald R. Ford International Airport.

Michigan's Hearing Loss Association now recommends that "Michigan's churches, auditoriums, theaters, courts, airports and other venues where sound is broadcast install assistive listening systems that broadcast sound directly through hearing aids." Plans are in the works for the looping of our state house and senate chambers. In California, the state Hearing Loss Association has similarly urged that, "In all new and

sational asides.

This inexpensive home system (costing as little as \$200) is so cool and makes such a difference in the lives of those who have it that it doesn't surprise me at all that some audiologists, like William Diles, of Sonoma, Calif., make looping systems a standard and complimentary feature of each hearing aid purchase. According to his report in *Advance for Audiologists*, his patient surveys revealed dramatically increased patient satisfaction not only with TV listening but also with hearing aids and a corresponding dramatic decrease in returns of hearing aids for refunds.

The solution seems so logical that one wonders why all Americans with hearing loss don't have a similarly convenient, inexpensive and effective hearing aid compatible assistive listening system. Some skeptics say, "It's old technology." And it is older than the new FM boots that enable wireless transmission to hearing aids. But that new technology can't compare to the old when it comes to affordability. My audiologist quoted \$3000 for



## FYI Hearing Health

**The New York City Taxi and Limousine Commission (TLC) has issued a request for information seeking comment from interested parties, passengers, drivers and advocates on how to address the needs of persons with hearing loss in public for-hire vehicles. Specifically, it aims to explore induction loop technology and the related costs as well as to analyze the demand for such an accommodation throughout the system. TLC regulates industries that provide transportation for over one million passengers daily in the New York Metropolitan Area. Respondents should send original comments to: Jennifer Palmer, Office of the First Deputy Commissioner, NYC-TLC, 40 Rector St., 5th Floor, New York, NY 10006. Comments are welcome until June 29, 2007.**



extensively remodeled buildings, wherever there is a public address system, a loop should be permanently installed. ... When there is a loop, all a person with hearing loss has to do to be able to hear is click on the t-switches on their hearing aids."

Other grassroots community initiatives by people with hearing loss are planting hearing aid compatible assistive listening in many venues in Tucson, Albuquerque, Williamsburg and elsewhere. In Washington, D.C., many congressional venues, including the House of Representatives' main chamber, are now looped. In New York City, one can now experience hearing aid compatible assistive listening at the world's largest Jewish house of worship (Temple Emanu-El), at New-York Historical Society video presentations and in the Museum of Modern Art classroom. New York City's Taxi and Limousine Commission has also recently issued a request for infor-

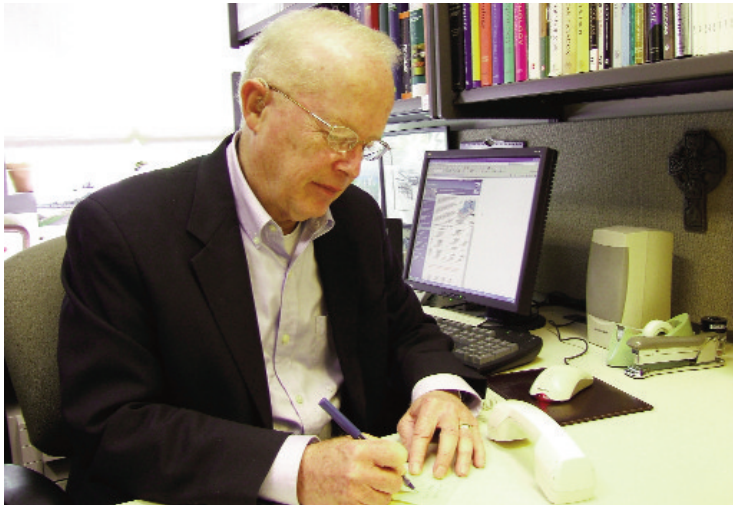
mation regarding the possibility of emulating London's mandate for looped taxis.

This slow but accelerating momentum toward a future with doubled functionality for hearing aids is supported by the increased availability of the tiny, inexpensive T-coil receiver. At the turn of the century an estimated 30 percent of hearing aids came with T-coils. In 2003, an Ohio State survey of the leading hearing aid manufacturers found that T-coils were included in nearly 50 percent of aids. Now, in 2007, a new survey of dispensing audiologists and hearing practitioners reports that 62 percent of their patients are receiving aids with T-coils. Moreover, those most needing hearing assistance are also those most likely to be wearing the increasingly popular behind-the-ear aids that routinely come with T-coils. Also, cochlear implants are now being equipped with T-coils. In 2007, the legislature in retiree-

friendly Arizona passed a bill, which the governor signed with the support of hearing professionals and hard of hearing consumers, requiring hearing professionals to inform patients of the usefulness of T-coils.

New mandates for "hearing aid compatible" (T-coil compatible) cell phones will further increase the usefulness of T-coils and of hearing aid compatible assistive listening. Although leaders of national organizations of hearing consumer and industry groups seem wary of offending existing vested interests, several have privately offered me their enthusiastic support. As one of them wrote me, "Our country will never be accessible for people who are hard of hearing unless we make hearing aid compatible assistive listening a reality."

So why not dream big? Why not dream of an American future where the use and functionality of hearing aids is doubled, while the stigma of hearing loss and hearing aids is con-



The author, David Myers, has also patched his office phone into a small loop system that broadcasts output to *both* hearing aids. Now he can take notes while checking his voicemail hands-free. Hearing the phone with two ears, he reports, is much better.

Photo courtesy of David Myers

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siderably diminished? Achieving these ends could also reduce the unit cost of hearing aids and increase public support for Medicaid, Medicare and insurance reimbursement for hearing aids – all to the benefit of people with hearing loss, the hearing industry and hearing professionals. Solid progress will take a team effort by consumers, hearing professionals, audio engineers and facilities managers. Seeing what Britain has accomplished and sensing the momentum here, my optimism grows. ■

## Arizona T-Coil Law Blazes Trail

BY AMY TORRES, STAFF WRITER

A bill recently passed by the Arizona Legislature now requires audiologists and hearing aid dispensers to inform buyers about audio switch (T-coil) technology at the time of purchase. Under Arizona SB 1348, a hearing aid bill of sale will include language that verifies that the hearing aid seller has discussed the benefits of T-coil technology – such as increased access to telephones and assistive listening devices – with the purchaser. Additionally, if the hearing aid purchased has a T-coil or T-switch, the client will be informed of the proper use and benefits of that technology.

Arizona State Senator Amanda Aguirre (D-24), one of the sponsors of the bill, says the legislation was needed to ensure that deaf and hard of hearing people are informed of technology that will help them participate in and enjoy everyday events. “Many people, including many hearing aids wearers, are simply not aware of the incredible benefits of T-coil technology,” says Aguirre. “Previously, you could buy a hearing aid that had a

T-coil but you might never be informed about what it could do for you. You had no idea that just by flipping on a switch in your hearing aid, your participation at theaters, banks and stores would increase dramatically.”

Aguirre says she is proud that her state is leading the charge and hopes that all other states will follow. “We saw lots of support in committees and there were many citizen advocates who testified about the technology’s benefits,” says Aguirre. Given the ease with which this legislation passed in Arizona, Aguirre believes it would be a relatively simple process in other states, as well.

The bigger challenge, she says, is to increase access in public places such as movie theaters, museums, banks and shopping malls, so that the benefits of audio switch technology are increased. ■