



An information counter at the Greater Rochester International Airport.



Photo courtesy Greater Rochester International Airport.

Airports

Getting In The Loop

Hearing loops are the wheelchair ramp of the hard of hearing.

By Stephen O. Frazier

Fear fills the hearts and minds of many hard-of-hearing travelers as they disembark at the arrivals area of most American airports. They're filled with the fear of being aurally blind. With rushed, garbled announcements in the concourse area and at the gates in most airports, travelers often don't know whether they're coming or going. Gate-change announcements are incomprehensible, flight delays are lost in transmission and pages over the PA system are simply indecipherable sounds.

Welcome Change

Happily, however, that situation is changing in a growing number of American airports. Leading that change is the Greater Rochester International Airport, in Monroe County NY, which has

become the poster child in the movement for improved communication access for hard-of-hearing air travelers. The airport administration, in line with the Hearing Loss Association of America (HLAA)'s admonition to "Get in the Hearing Loop," has devoted a good portion of a \$40 million grant from the state of New York to the installation of hearing loops and other technology throughout the terminals.

Hearing loops, which are known in the AV world as audio frequency induction loop systems (AFILS) are, in their simplest form, a discretely installed wire that circles an assembly area that's connected through its own amplifier to an electronic sound source, such as a PA system. The loop broadcasts the sound from that system as a silent electromagnetic signal to the telecoils in hearing aids and cochlear implants (CIs) of anyone inside that loop. What are telecoils, you ask? They're tiny wire coils available in most hearing aids and all new CIs. They receive the loop's silent signal, and the hearing devices turn it back into sound. Installation of AFILS technology has surged in the US in the last decade, turning up in locations as diverse as New York NY taxicabs and the US Supreme Court; now, it's in a growing number of airports.

In the case of the Greater Rochester International Airport, the loop wire—all 19,000 feet of it—was buried in the scored concrete floors of the terminal and connected to 23 separate Contacta HLD9 modular phased array loop drivers, each with 10A RMS of compliance current at 1kHz sine wave to overcome the abundance of steel in the floors. These 400W drivers serve all the departure gates and two separate concourses. The installation was performed by the Hearing Loop Systems Division of Parkway Electric & Communications, of Holland MI.

Starting From Check In

With the completion of that project, access to hearing loops now begins with check in, at which time ticket agents use counter loops to communicate with passengers, and ends as a traveler boards the plane. In addition to the loops installed in the floors, more than four dozen counter loops are spread throughout the terminal. What's more, the use of telecoil/loop technology to serve passengers continues as they move through the security area after having checked in.

Passengers proceed to looped concourses and departure gates that feature phased array loops, which contain sound to each individual gate area. Attendants at those gates also have a counter loop at their desk, enabling them to communicate privately with individual travelers. What's more, counter loops are featured at car-rental desks, gift shops, food-service cashier stations and other points of service.

As excellent as all of that is, here's the limitation: Not even nearly four miles of loop wire, plus an abundant supply of counter loops throughout the terminal, can help a traveler if he or she doesn't have telecoils. So, tablet computers that feature an Interprettype software program are on hand at all points of service to communicate by voice-to-text, or even sign-language-to-voice. Meanwhile, overhead, color-coded TV monitors visually relay information being broadcast over the loops. The Monroe County Executive, Cheryl Dinolfo, told the local TV station, "Our goal is to create a safer and improved passenger experience with state-of-the-art facilities and amenities."

With nearly 2.5 million travelers passing through Rochester's terminals each year, up to an estimated 500,000 could have a measurable hearing loss; and, for those in that half-million who have telecoil-equipped hearing aids or CIs, none will have to wonder what an announcement was, if their gate has changed, if their flight is delayed or canceled, or if they're being paged. Some travelers, seeking to rid themselves of the auditory overload present in the terminal, might even choose to turn off the mics in their hearing aids and rely solely on their telecoils to provide the information they need to get to their gate and board their flight.

One Of Several

Rochester is just one of several airports to follow the example set nearly a decade ago, when the Gerald R. Ford International Airport in Grand Rapids MI became the first in the US to install this kind of technology, placing it at all its gates and in the grand concourse.





A night shot of the canopy over the arriving passenger area at the Greater Rochester International Airport.

Photo courtesy Greater Rochester International Airport.

Tara Hernandez, the airport's Marketing Director, reported, "The response to the loops by hard-of-hearing travelers has been tremendous, because it takes the stress out of travel."

The Kalamazoo/Battle Creek International Airport soon emulated Grand Rapids; then, terminals in Muskegon MI and South Bend IN followed. As time passed, loops were installed at some Delta Air Lines gates in the Detroit Metropolitan Wayne County Airport as well as in the Minneapolis-St. Paul International Airport, in which the international arrivals area and an "Art at the Airport" rest and waiting area were looped. Also adopting hearing-loop technology in various ways were the Fort Wayne International Airport and the Santa Barbara Airport.

Phoenix Sky Harbor International Airport, located in Maricopa County AZ, is a major hub for Southwest Airlines and several other air carriers. It has joined the move to provide better communication access as part of a modernization project that began at its Terminal 3. Sky Harbor's Senior Technology Systems Project Manager, Craig Fuller, reported that the airport has installed inductive hearing loops at 15 gates on the South Concourse, and it plans to loop an additional 10 gates on the North

Concourse next year. To avoid even the possibility that cutting channels in the cement floors of the terminal for loop wire would weaken them, the airport required that the 14,000 feet of loop be copper tape installed on the floor surface, instead of in scored channels in the cement floors.

The installation uses Contacta's HLD9 amplifier driving a phased array patterned loop, which confines each gate's loop signal within its borders, and which avoids the signal overspill one might encounter when using a typical perimeter loop.

And the list goes on! In Austin TX, Hearing Loop Systems has looped 12 gates at Austin-Bergstrom International Airport. In Memphis TN, a major modernization program is in the planning stages at Memphis International Airport; it will include induction loop systems in the concourse and in all gate/hold room areas.

Atlanta GA's Hartsfield-Jackson International Airport was recently honored by the Federal Aviation Administration (FAA) for its efforts to enhance accessibility for passengers and guests who have disabilities. Balram Bheodari, Interim Airport General Manager, said the airport placed teletypewriter (TTY) devices, which provide voice-to-text communication for the deaf or severely hard

of hearing, at strategic spots throughout the terminal, while also installing hearing loops at information desks "to ensure a best-in-class experience is accessible to all of our guests." It seems clear that the looping movement is gaining momentum. With the wind at their backs, advocates are pressing for the airports in Albuquerque NM, Salt Lake City UT, Seattle WA and other cities to get in the loop.

Around The World

American airports have been slow to address the special communication needs of hard-of-hearing travelers. Hearing loop technology is common in the air terminals of many major cities around the globe, from the East to the West. In Russia, all three of Moscow's airports feature hearing loops. Domodedovo Moscow Airport, for example, installed loops in nine zones of the terminal, which are connected to the airport's system of automatic announcements. In Seoul, South Korea, Incheon International Airport recently installed hearing loops at information desks so that hard-of-hearing travelers can more easily communicate with attendants.

Airports and train terminals in the UK have featured hearing loops for years. Gatwick Airport in West Sussex, England, is



Increasingly, air travelers are seeing signage about airports being hearing-loop equipped.

filled with signs that show what they call the “sympathetic ear” symbol. It’s visible from check-in counters to gates; plus, a new waiting area, which opened last summer, is specifically designed for those who have disabilities. Like Gatwick, Heathrow Airport in London, England, has loops available at various points throughout the terminal. Meanwhile, at Manchester Airport in Greater Manchester, England, check-in counters are looped and phased array systems have been installed in key areas of the building.

Crossing the channel to France, Charles de Gaulle Airport near Paris, France, offers travelers waiting areas within each of the airport’s terminals, each of which is equipped with induction loops. Moreover, the customer-assistance terminal is fitted with a loop. In Spain, Madrid-Barajas Adolfo Suárez Airport has installed hearing loops in a variety of locations to improve accessibility for hearing-aid users.

The recently adopted international symbol for hearing-loss assistance features a “T” if that assistance is provided by hearing-loop/telecoil technology. Here in the US, it is usually blue; however, abroad, it might be a variety of colors. In all cases, though, the symbol tells hard-of-hearing travelers to turn on their telecoils. As is clear, travelers in an increasing number of cities—both domestic and international—can expect to see them as they traverse airports.

Summing Up

The discussion above references just a few examples of the multitude of airport terminals around the world served by hearing loops. That testifies to a belief among many that, for those with hearing loss, loops are a preferred and effective way to serve their communication needs in large places of assembly.

Importantly, telecoil-equipped hearing aids or cochlear implants that are acquired in the US—or anyplace else in the world, for that matter—will work with the hearing loops in any venue a traveler might visit: from the

Intrepid Sea, Air & Space Museum in New York, to the tourist information office in the tiny village of Les Eyzies-de-Tayac-Sireuil, France. Hearing loop signals are the same frequency everywhere, and, assuming they are installed correctly, they all meet the universal standard for signal strength and uniformity contained in IEC 60118-4.

Hearing loops are the wheelchair ramp of hard-of-hearing people...an accommodation that will make their disability a little less disabling. And that’s why it’s worth celebrating so many airports now getting in the loop. 📺



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