Hearing Loops Coming In For A Landing

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Poor communication access in airports is one of the biggest complaints that hard-of-hearing travelers express. Between their hearing loss, hearing aids’ limited ability to block the cacophony of noise that overlays audio messages in the typical airport concourse, and many gate attendants’ and others’ lack of announcing skills, public-address (PA) announcements can become an aural assault of garbled, unintelligible sound for hard-of-hearing travelers. Conversing with ticket agents, security personnel or information-booth occupants in a noisy airport varies from challenging to impossible. Airport managers are addressing this problem by installing hearing loops at departure gates, ticket and information counters, and elsewhere in terminals.

Transportation centers’ adoption of audio-frequency induction-loop-system technology (AFILS)—this is commonly called hearing-loop technology—has just been given an enormous boost. The Port Authority of New York and New Jersey (PANYNJ) issued revised accessibility requirements in March; they mandate that hearing loops be installed in all new or significantly updated travel terminals in the New York City area run by PANYNJ. That includes the departure gates and information counters at all greater New York City airports, as well as information counters at bus, rail and ferry facilities that PANYNJ operates.

PANYNJ, in adopting these new requirements, stated, “By becoming an early adopter of the groundbreaking space requirements and effectuating other changes based on feedback from people with disabilities that have yet to be addressed in any building code or accessibility standard used in the United States, the Port Authority will be a true pioneer. As a result, Port Authority facilities will even better serve the diverse population of people with disabilities who rely on our services.” In accordance with Americans with Disabilities Act (ADA) regulations, these new requirements entail providing signage to notify travelers and others that the technology is available at all facility locations in which hearing loops are installed.

Hearing-loop systems can be found in almost all major airports throughout western Europe, as well as in the Australasia region and even in Russia. However, hearing loops are just now finding their way into the United States. The systems transmit a silent, electromagnetic signal to hearing aids or cochlear-implant processors that are equipped with tiny receivers called telecoils (T coils). Currently, about 70 percent of hearing-aid models available in the US have been, or can be, fitted with such receivers. Users can connect to the loop signal using what’s called a “T switch” on their hearing devices, and they can control its loudness using the device’s volume control. To reduce reverberation and other background noise, users can turn off the microphones in their hearing devices to hear mostly just the signal that the loop delivers.

At each individual departure gate at the airport, loops will transmit all audible announcements pertinent to passengers at that gate only. They will be required to adhere to the standards set forth in IEC 60118-4 guidelines. Unlike venues such as theaters and other places of assembly that offer hearing loops, the loop systems that these PANYNJ transportation facilities mandated won’t be required to provide receivers and headsets so that listeners can hear PA announcements or participate in conversations over the counter. Consequently, only those travelers with T-coil-equipped hearing aids can access the loops.

The International Hearing Loop Manufacturers Association (IHLMA) said that its products provide a solution for the many hard-of-hearing travelers who find it impossible to understand announcements over airport PA systems. They report that

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speech comprehension can be increased from zero percent or 10 percent to as much as 90 percent by using T coils and a hearing loop. For many passengers, this technology can eliminate the need for other types of accommodation, such as passing notes or attendants having to alert passengers individually of flight delays, gate changes or other important information.

Hearing loops are the primary assistive-listening technology in the UK and in much of western Europe, and they have become a growing presence in the US. There’s an organized national campaign to raise awareness of, and increase the availability of, the technology. Entitled “Get In The Hearing Loop,” the Hearing Loss Association of America (HLAA) sponsors the campaign. The campaign has played a significant role in dramatically increasing the number and type of venues in the US that use the technology. Hearing-loop technology is now being used in some form in more than 16 US airports, stretching from LaGuardia Airport in New York to Phoenix Sky Harbor International Airport in Phoenix AZ. Delta Airlines has been a leader in adopting this technology at airports that it serves. At Detroit Metropolitan Wayne County Airport, it’s present at the departure gates. At Hartsfield-Jackson Atlanta International Airport, it can be found at Delta information counters.

The new Delta terminal at LaGuardia Airport is a showcase for the technology. MKJ Communications Corp., located in nearby Brooklyn NY, was selected to lead the complicated audiovisual overhaul of the existing Terminal B as well as the new Delta terminal construction. According to John Massaro, VP of MKJ Communications, “Hearing loops are currently installed in the new Concourse G part of the new Terminal C redevelopment. They will also be installed in the new Concourse D, E and F as they near completion.”

Listen Technologies Model D14-2 (Dante) loop drivers, manufactured by Amptronic, were used. The system is fed audio digitally using Dante audio-over-Ethernet technology. The antenna for the loops is copper tape under the carpet in the gate areas only.

At departure gates, the original plans called for an analog feed from each gate microphone to the loop at that gate. That would limit the messages broadcast to pertinent flight information for that gate. MKJ requested, and was given the go-ahead for, a change. MKJ made the system fully digital, and it enabled it to route all types of announcements to any zone in the system. In addition to broadcasting gate changes, flight delays, boarding calls and other information pertinent only to passengers at that gate, the new plan entailed the ability to broadcast emergency announcements and public-service announcements (PSAs), plus anything else intended for all individuals in the terminal, to the gate. Notably, that can include text-to-speech (TTS) messaging. The TTS option converts text messages to high-quality voice announcements, and the Delta system is currently capable of offering five different languages.

At this time, loops aren’t installed in locations such as baggage claim or the rental-car counters at LaGuardia Airport, nor are such installations in the PANYNJ requirements. Such installations are, however, being adopted elsewhere. At Seattle-Tacoma International Airport in Seattle WA, they’re experimenting with portable, countertop loops at a variety of locations within the terminal. At Eugene Airport in Eugene OR, they’ve installed concealed counter loops at rental-car counters, and they’ve also done so at ticket counters and at boarding gates. And Sound & Communications previously reported on the extensive looping at Greater Rochester International Airport in Rochester NY.

Meanwhile, Wittman Regional Airport in Oshkosh WI is the latest addition to looped transportation hubs in the state. It joins Milwaukee Intermodal Station in Milwaukee WI, a transportation link that offers local and long-distance train and bus services. And, in New York City, Penn Station and Grand Central Station have “gotten in the loop,” as has Union Station in Washington DC.

Hundreds of theaters and other performance spaces around the country now offer hearing-loop access, as do untold thousands of houses of worship that have installed loops to replace or supplement their PA systems. The ADA now requires the inclusion of this sort of hearing assistance either as a freestanding system or in the form of optional neckloops with frequency-modulation (FM) or infrared (IR) systems as part of all new or upgraded PA systems serving theaters, legislative chambers and other public gathering places.

PANYNJ’s adoption of these revised accessibility requirements sets a new standard for suitable accommodations for commuters and travelers who have hearing loss. United Airlines once promoted the “friendly skies” that the company afforded travelers. With these new hearing-loop requirements, PANYNJ is offering travelers friendlier transit environments. In so doing, it’s joining Phoenix; London, UK; Sydney, Australia; Seoul, South Korea; and Moscow, Russia in “getting in the loop.”