


HEAR IT TO BELIEVE IT

WHILE STANDING IN AN AIRPORT TERMINAL, PASSENGERS HEAR A WEALTH OF PA ANNOUNCEMENTS. NOW MAJOR ADVANCES IN TECHNOLOGY MEAN THAT THE VOICE PASSENGERS HEAR IS NOT ALWAYS HUMAN

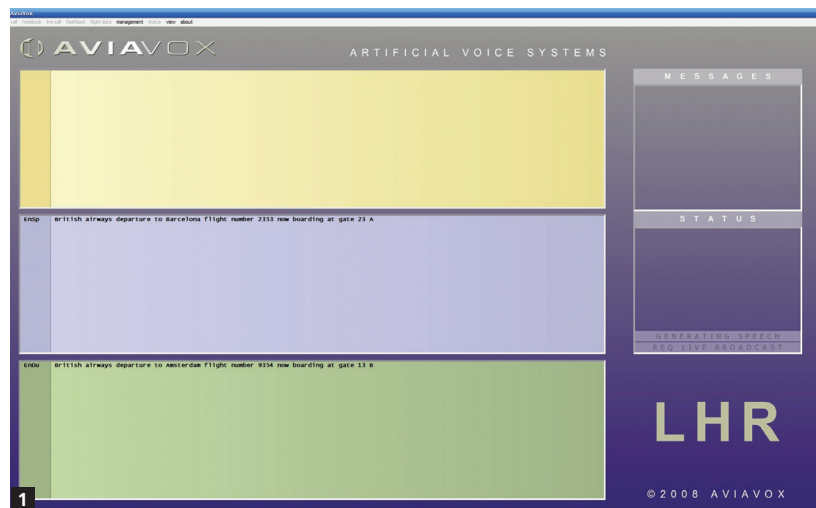
 London Heathrow Terminal 5 has been equipped with a highly innovative automatic announcement system from AviaVox, a Dutch enterprise that specialises in the development of artificial-voice systems. AviaVox's systems integrate with an interface broker connecting to data sources from Ultra Electronics, and use a brand-new, state-of-the-art PA system from Honeywell.

The AviaVox intelligent announcement system is specifically designed for airports. It provides solutions to many well-known problems that airports experience. Thanks to new phoneme technology that makes a computer speak, announcements that sound natural can be made automatically in a range of languages. The quality of the announcements is so level that they cannot be distinguished from a human speaker.

The artificial announcements are generated by AviaVox software that uses digitised speech fragments called phonemes. Analysis of the intonation of words within sentences shows that the pronunciation of a word is dependant on its position within a sentence and is also influenced by the words that are in front and immediately behind it. Within the AviaVox system every word is dynamically built with these phonemes to get the intonation, speed and timbre exactly right.

A project team comprising BAA, ARINC (the main contractor) and AviaVox worked closely together to put the required interfaces in place to generate flight-related announcements throughout the terminal.

The testing, preparation and collaboration of manufacturers such as AviaVox and Honeywell resulted in an announcement



system that is very likely one of the most modern in the world. T5 is, therefore, well prepared for the future.

The T5 AviaVox system takes its feed from an interface broker – it will make announcements based on real-time situations and the airport announcement policy. In this way the AviaVox system supports the daily operations at T5 in a range of 14 languages, and for each language more than 2,000 dynamic announcements can be generated, creating a highly flexible tool to meet the requirements of the airport, airlines (British Airways in this case) and passenger expectations. AviaVox not only developed the interfaces to the interface broker at T5 but also made the digital interface to the brand-new Honeywell system.

Another advantage that T5 benefits from is the way that AviaVox deals with the daily maintenance of the system's voice base. This is done on a real-time basis and

compares the existing voice base at T5 with the need to generate specific words in an announcement. If for instance a new destination or airline needs to be announced by the system and the right speech fragments are not available, the missing speech fragments can be downloaded in real time from a central database in the Netherlands to compose the destination or airline name. Downloads arrive in milliseconds and are stored on the local AviaVox system so that they are available on another occasion.

The AviaVox system at T5 is suitable to be extended with the airline-gate-client option that supports an airline's local boarding procedures within the restricted areas of the boarding gate. British Airways already uses this software tool at other airports around the world, including Amsterdam Airport Schiphol.

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1. AviaVox's automatic announcement system is used at London Heathrow Terminal 5