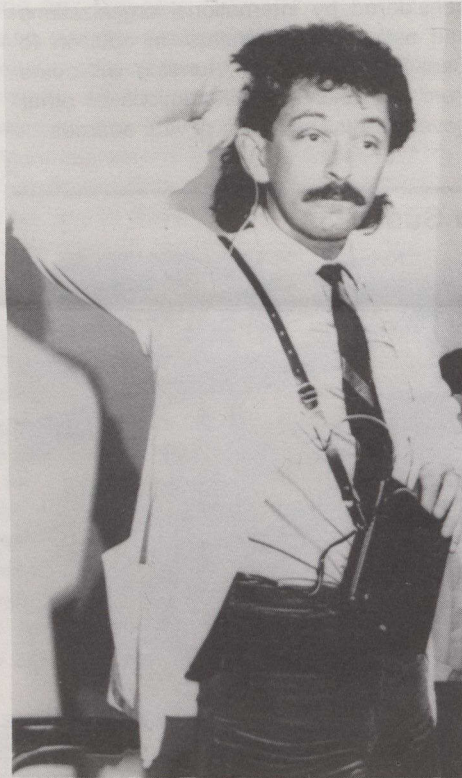


Quebecker hears again

After 12 years of complete deafness, Real Sasseville can hear music again, thanks to an electronic ear implanted in a delicate operation recently.



Canapress

Real Sasseville can now hear after 12 electrodes were implanted in his ear.

In the first operation of its kind in Canada, a team of doctors at the Hôtel Dieu hospital in Quebec City, inserted 12 electrodes in Sasseville's inner ear, directly touching the auditory nerve which relays sounds to the brain.

The electrodes are connected through the mastoid bone behind the ear to a receiver surgically implanted beneath the scalp. The receiver in turn is connected to a battery-run transmitter strapped to his waist which captures sounds from the outside world.

The operation took place May 17, and a little more than a week later, Sasseville was hearing music for the first time in years.

"I can hear your questions and the sound is close to normal but more metallic", said Sasseville, who turns on his new \$19 000 electronic ear only for short bursts as he enters an intensive period of retraining to hear and decode sound.

Sasseville lost his hearing 12 years ago due to Alport's disease, a hereditary ailment which progressively destroys both the internal ear and the kidneys.

Fibre-optic phone cable

The 29 telecommunications organizations from Europe and North America which met in Paris recently have given the go-ahead to a \$335-million (US) project to lay the first undersea fibre-optic cable.

Dubbed the TAT-8 project, the international communications carriers will share the cost and use of the 5 160-kilometre cable, to be sunk in the Atlantic Ocean by 1988.

The glass cable will run from Tuckerton, New Jersey, to Widemouth Bay in Cornwall, England, and Penmarc'h on the Brittany coast of France. It will carry telephone messages at the speed of light and will increase the capacity of the undersea cable system linking North America and Europe.

Signing the agreement for Canada was Jean-Claude Delorme, president of Teleglobe Canada. Teleglobe will invest \$5.1 million in the cable and own 165 bearer circuits, capable of carrying 718 telephone circuits. The cable will be able to carry 40 000 voice messages.

Late last month, the US Federal Communications Commission authorized a consortium of eight US companies, headed by American Telephone and Telegraph Co. of New York, to participate in the project. The US consortium and Teleglobe together will hold a 50 per cent interest in the cable.

AT and T is investing \$123 million (US) in the project, British Telecom \$52 million, and France's Telecommunications Administration \$33 million.

AT and T will lay 3 150 nautical miles of the cable from the US to a junction box off the European coast. The remainder will be laid by Standard Telephones and Cables PLC of Britain and Submarcom of France.

Super cold fridge aids research

A new refrigerator that will cool samples to within a fraction of a degree of absolute zero will help Canadian scientists study the structure of atoms.

The \$200 000 refrigerator will be installed near the research reactor at the Chalk River Nuclear Laboratories of Atomic Energy of Canada Ltd., Ontario.

Neutron beams from the reactor will be used as probes to study metals in the search for superconducting alloys that allow electricity to pass through without resistance. Researchers from Queen's University, the University of Toronto and McMaster University will use the device when it is ready in early 1985.

French-speaking computer

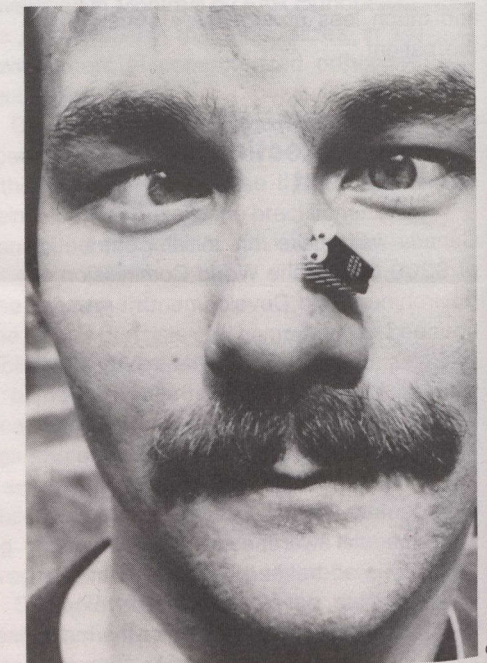
INRS-Telecom, a joint venture of the University of Quebec and Bell Northern Research's Montreal telecommunications research laboratory, displayed a French-speaking microcomputer at the third Science and Technology Show held recently in Montreal.

The machine has a standard keyboard. Through electronic speech synthesis, it reproduces orally any message typed on to the keyboard at a speed of about 200 words a minute. The speech synthesis-based system has been under development for several years at INRS-Telecom.

Since then, further research and advances in electronics have improved speech quality and range and permitted the system to be operated on a microcomputer.

Similar speech synthesis systems have been developed in the United States for voice reproduction in English, and INRS-Telecom is negotiating the sale of its French-language reproduction software to two US companies. They are not only interested in the potential markets for French-speaking microcomputers but also in the specific capabilities of the system.

Does it byte?



Canapress

Robert Duffy and Chippy, his high-tech pet, each seem to be waiting for the other to make a move. Duffy created Chippy as a high-tech answer to the "pet rock" using computer chips and small plastic eyes. He has sold about 2 000 in the Ottawa area at \$1.99 each.