

Better bomb detector

Scintrex Ltd., the Toronto-area firm chosen to manufacture a faster and more sensitive bomb sniffer, plans to have it commercially available next summer.

The sniffer, developed jointly by the National Research Council (NRC) and Transport Canada, has shown in tests to be between ten and 100 times faster than other methods, having detected simulated bombs on airplanes in as little as two minutes.

NRC's Lorne Elias, designer of the super-sniffer, said Scintrex Ltd. of Concord, Ontario — a manufacturer of scientific instruments with representatives throughout the world — was chosen from about a dozen firms competing for production rights.

Working prototypes

Scintrex president Dr. Harold Seigel said recently several working prototypes will be ready next spring "and we should have full production by the middle of next year".

Scintrex is now making adjustments to existing NRC prototypes "to make it easier to build", Dr. Seigel said.

Transport Canada's head of electronic airport security George Seman has not yet decided which airports will serve as testing ground for the first sniffers. He said the device would receive "a good field test" before a decision is made whether to permanently equip some airports with it.

Detect vapours

The sniffer, which weighs about 15 kilograms and fits inside a small suitcase, can detect the vapours of explosives in as small quantities as two parts a trillion. The device takes an air sample — from an airplane's ventilation system, for example — and analyzes it to detect a variety of explosives, including dynamite, nitroglycerine and TNT. The sniffer could also be used to detect bombs planted in buildings.

A variation of the sniffer can also detect drugs and Dr. Seigel said the firm will produce that version late next year. Production start-up costs "are almost negligible" and he expects to sell "hundreds of them" next year.

Among prospective clients are Transport Canada, the RCMP, Atomic Energy of Canada, the military, police bomb squads and airlines.

Disabled world circumcyclist



The Citizen

Richard Beecroft sets out this month on world-wide tricycle trip.

Skeptics are numerous, supporters few, yet Richard Beecroft is still zealously planning his departure on what many say is an unrealistic crusade. The 33-year-old multiple sclerosis victim plans to leave from Toronto September 24 on a three-year, 46 000-kilometre tour across the world on a tricycle to inspire other handicapped people.

He moved his departure date up several weeks when the United Way invited him to speak about his trip at the commencement of Toronto's annual campaign where he will be given a public send-off. The Multiple Sclerosis Society of Canada is supported by United Way.

Mr. Beecroft made headlines two years ago by crossing Canada on his tricycle and received considerable praise and support along the route. A restaurant chain provided all his meals and people opened their homes to him. This time though, he had been unsuccessful in convincing corporations, individuals, even the provincial government's health ministry to financially support him.

"I'm still having a fair amount of difficulty getting support," he admitted. "It's too 'iffy' for companies or people to understand."

Doors have been closed on him everywhere. He said he has often been dismissed as eccentric. Even Beecroft's application to the Ontario Ministry of Health asking it to pay the cost of multiple

vitamins he needs daily was rejected.

But he is going anyway. He is sure the support "will really take off" once he is under way.

So far, corporate gifts include \$500, five pairs of shoes, a tent and letters of introduction and support from Ottawa Mayor Marion Dewar and two members of Parliament. He also has promises of free airline tickets from CP Air, Air Canada and British Airways to cross the ocean once he has finished the 20 000-kilometre, North American leg of his tour next year.

Mr. Beecroft has some of the symptoms of MS, a baffling disease of the central nervous system. It causes everything from tingling, numbness and blurred or double vision to slurred speech, dizziness, excessive fatigue and loss of balance. No cure has been found. He is hypersensitive to heat and rides a tricycle because he staggers when he walks.

Seeing-eye computer

A University of British Columbia (UBC) team has set up a new centre designed to use computers to duplicate and extend the human brain's ability to interpret visual data.

The group headed by Dr. Alan Mackworth has begun to operate a laboratory for computational vision at the university. Dr. Mackworth and his colleagues represent many disciplines, including computer science, forestry, astronomy and pathology.

Helped by a \$400 000 start-up grant from the Natural Sciences and Engineering Research Council (NSERC), the UBC group has already installed new hardware and is now working on software — the formal procedures computers follow to do their work.

One new program, called MAPSEE, helps the computer system recognize map features such as rivers, bridges, shorelines, and roads. According to Dr. Mackworth, the best way for machines to do this often makes good human sense as well — showing how closely computers may approximate the way our own brains solve problems. Example: MAPSEE "knows" that although both roads and rivers appear as lines, roads pass over rivers at bridges; rivers must connect shorelines to lakes; and roads exist in networks connecting towns.

(An article from Science Dimension, 1983/2.)