

Radio buffs ham it up in Milton

Originally, a ham radio operator was someone who in the early days of radio communications took it upon himself to fill the airwaves with his particular idea of entertainment. Sometimes the entertainers were long on aggressiveness but short on talent, hence the term "ham".

Amateur radio operators (they dread being mentioned in the same breath as or likened to CBer's) have come a long way since the birth of their hobby, and today they toy with advanced electronic gear and are pushing the frontiers of amateur radio back by using computers.

The most advanced home electronic gear shared the Milton Fairgrounds with its poor cousins from the 1940's last weekend when ham radio operators from all over southern Ontario and beyond descended on Milton "with their ears on" for the Fifth Annual Ontario Hamfest, a combination swap meet and science fair with a liberal dose of partying added.

More than 1,000 enthusiasts, most sporting the VE3 prefix designating "Ontario" on their prominently-displayed call cards, filled the fairgrounds for a weekend of wheeling and dealing and shop talk.

Hugh McCully, president of the Burlington Amateur Radio Club, outlined some of the many aspects the hobby offered as he walked the midway crowded with second-hand equipment hawkers who formed an electronic flea market that looked like a fire sale following a blaze in a 747 cockpit.

Ham radio operators have built and had launched a communications satellite that is controlled by amateur operators, he said, and are now using computers to log their communications and track signals.

In some instances, computers have been used to perform all the operations involved in transmission and recording of calls without the presence of a human operator.

It is still primarily a past time for those interested in tinkering with machines. It involves tracking down elusive old television parts and grafting them onto receivers, or gutting old radios for their tube amplifiers to use as power sources, as have Cam Thomas and Neil Vaughn.

The two young men displayed an aged CN teletype machine produced in the 1930's, when it sold for \$1,000, they said. That day they wanted \$40 for the unit.

"Mechanically, it's a nightmare," said Cam. For years he has been hitting the swap meets and army surplus stores in search of electronic fragments to piece together many such components.

"I pick up horrendous amounts of junk," added his partner Neil. I've used maybe one half of one per cent of it."

Someone who has used considerably more than that ratio is Bill Spring, of Burlington, who claims to have the first unit of its kind in North America, because he designed and built it himself.



Chuck Palmer of Brampton proved to be the fastest code-decipherer at the Ontario Hamfest, with a correct speed of 45 written words per minute in the Morse code comprehension test.

An electrical engineer, Spring is given to elaborate descriptions of his project, packed with more statistics and jargon than the newest fighter plan plus.

In simplest terms, he has taken a normal receiver-transmitter capable of operating on one channel, added \$200 worth of parts and considerably more in labor, and come up with a machine that works on 100 channels, scans available frequencies and finds and stores frequencies where contacts are made—anywhere, anytime.

His machine works with the aid of a microprocessor—a tiny computer component that is part of the revolution in miniaturized electronics.

While many enthusiasts putter around with old components they cannibalize to come up with working units, others take the straight route to the top, surrounding themselves with state-of-the-art hardware.

Hugh McCully estimated that for \$250 and with some wise shopping, at ham flea markets, a novice could build an adequate unit. For a mere \$1,400 more he can tack on an Apple 2, a desktop computer about the size of a portable typewriter.

A home entertainment centre, business tool and storage device all rolled into one, this machine can be most anything the programmer wants it to be.

It is with such a machine that the Canadian ham operator who monitors the amateur radio communications satellite

from Barrie makes his control adjustments.

"This machine can do everything from keeping track of every station you ever talked to to even operating the station," said Dave Robinson, who sells the unit. "It depends on how good you are with the computer. It's hard to say where the computer stops."

The computer can store 16,000 separate bits of information in its memory and can be operated much the same as a tape recorder. Introduce a program disc and it will play chess, provide an inventory or run a radio station.

While Robinson extolled its virtues, a man put the machine through its paces. He was dressed in an old patterned shirt and work pants with a burnt-out cigarette ash stubbornly clinging to a butt he held in clenched lips.

His sun-darkened and lined face fronted by glasses gave the impression of a rural Ontario farmer. He had, he confessed, never been to high school but he was very adept with the desktop genius, had been using one like it for some time, as a matter of fact.

It was perhaps an example of how far electronics have come. The man wasn't stupid, but he wasn't the type to be caught up in the latest fads. It was hard to picture him on a disco dance floor. Yet he had a computer.

It may be new-fangled, but with the true practical eye of the farmer, he knew a good thing when he saw one.