ritories, parts of Newfoundland and in northern sections of British Columbia; in all, it has about 48,275 subscribers.

The TCTS members are continuing to automate their systems and rates for customer-dialled calls on the inter-company network have been steadily decreasing. Since 1972 TCTS has offered a one-minute minimum charge that allows more economical long distance calling.

Each member company is responsible for providing good quality service within its own territory and for integrating its facilities with those of all other telephone companies in Canada in order to provide connections with telephones elsewhere in North America and overseas. Collectively these companies operate the world's longest single microwave system carrying telephone conversations, radio and television programs and computer data from coast to coast.

Services have been developed to meet specialized needs across Canada for voice-only communications. These range from aids to the handicapped to services such as Wide area telephone service and Voicecom for business firms. Wide area telephone service (WATS), provided by the TCTS companies, is for customers who make or receive many long distance calls to or from many points. WATS allows a customer to call, or to receive calls from, anywhere within one of seven zones for a flat monthly rate. These areas range in size from part of a province to all of Canada.

Single digit dialling is the main feature of Voicecom service. It provides voice-only communications between specified locations via the public telephone network on a pay-as-you-use basis. By dialling a single telephone number, a Voicecom customer can reach as many as 10 telephones subscribing to the same service.

A Hot-Line service, introduced in 1969 by CNCP Telecommunications and Western Union in the US, enables companies in Toronto or Montreal to talk to their offices in New York City by simply picking up the handset of the telephone. When a customer picks up his handset, the exchange equipment will select the corresponding telephone at the other end. Subscribers are charged on a time-used basis.

Three microwave routes across Canada form the backbone of Canada's telecommunications systems. Two of the routes belong to TCTS, the third to CNCP Telecommunications. Numerous regional and local microwave routes feed into the main systems. Canada's first coast-to-coast microwave system, completed in 1958 by the Trans-Canada Telephone System, is still the longest single microwave route in the world, extending almost 4,000 miles.

Microwave transmission uses bands in the upper regions of the radio frequency spectrum. One microwave channel can carry up to 1,200 two-way telephone conversations, or one television program. Network radio and television programs of the CBC, the CTV, Quebec's Television Associates and Radio Quebec networks are carried by the TCTS microwave system.

The TCTS network consists of cable, microwave, satellite, and a variety of other transmission facilities. The system is growing constantly and is approaching the 10-million-mile mark within Canadian borders. Links are provided at many points into the United States, and overseas connections to and from the network are made through the Canadian Overseas Telecommunication Corporation. The TCTS companies have invested $8.3 billion in their facilities and during 1974 expect to spend $1.2 billion on new telecommunications facilities. Gross revenues for 1973 were about $1.9 billion.

Canada's domestic communications satellite ANIK I has been integrated into the existing TCTS communications network. Bell Canada uses ANIK for communications with the Arctic, previously accomplished by a combination of tropospheric scatter and high-frequency radio, and TCTS uses ANIK for east-west communications.

In 1973 TCTS members continued to provide customers with the most technologically advanced telephone service available as they installed electronic switching stations in several Canadian centres. With computers controlling their operation, electronic switching stations can be expanded by enlarging the computer programs. The computer also makes it possible for one simple telephone to do the work of many more complex pieces of equipment. One particular type of electronic switching system, SP-1, was developed in Canada by Bell-Northern Research and is being manufactured for the domestic and export markets.

In Ottawa TCTS has established a sophisticated Service Co-ordination Centre to oversee network operations. The Centre monitors the TCTS network so that up-to-the-minute reports can be provided on the status of the total system. It also advises local managers about network conditions and provides technical direction. The Centre directs broadband restoration, the process of re-assigning microwave channels during emergencies, and establishes priorities for restoring service over the entire network.