

Section 2.—Telephones

A brief account of the early development of telephones in Canada is given in the 1934-35 Year Book, p. 781.

Telephony in Canada to-day is moving ahead at a pace matching that of national progress generally. New devices, new systems and new services are being introduced to provide more and better communications. Operator dialing of long-distance calls is an important step towards faster and more accurate continent-wide telephone service. New equipment and methods fit into a long-range program to enable operators to dial calls straight through to distant telephones in Canada or the United States without the assistance of other operators along the route.

One of the new devices playing an increasingly important role in this development is the transistor, a discovery of telephone research. This tiny and amazingly simple electronic amplifier, based on an entirely new principle, can perform efficiently many of the functions of the ordinary vacuum tube and do many other things besides. The transistor's small size, low power consumption and expected long life make it suitable for application to submarine cable, compact military electronic equipment, computers and other devices for which the vacuum tube is not as well suited. In telephony very wide applications of the transistor are in prospect to increase the speed, accuracy and economy of switching equipment.

Telephone circuits to carry the growing volume of intercity traffic and to perform special communications functions are being provided on a scale to equal the development of switching systems. Canada's first microwave radio relay system, capable of carrying many simultaneous telephone conversations as well as television programs, was opened to service early in 1953, reaching from Toronto through Ottawa to Montreal. Extensions of this system are already being engineered and constructed further to improve long-distance telephone service and to extend the scope of television network broadcasting in Canada.

Telephone Systems.—The 2,888 telephone systems operating in 1952 included the three large provincial systems in Manitoba, Saskatchewan and Alberta, and smaller governmental systems in Ontario, Quebec and New Brunswick, together with the system operated by the Federal Department of Transport and the National Parks of Canada, Department of Resources and Development (now Northern Affairs and National Resources). Also included were 23 municipal systems, the largest being operated by the Cities of Edmonton, Fort William, and Port Arthur. Of the 2,269 co-operative telephone companies, 999 were in Saskatchewan, 838 were in Alberta and 204 in Nova Scotia. The largest among the 431 stock companies operating telephone systems in 1952 were the Bell Telephone Company and the British Columbia Telephone Company. Over 64 p.c. of the total telephone investment in Canada belongs to the Bell Telephone Company, and their telephones in Quebec and Ontario constitute 59 p.c. of the total number for Canada.

Telephone Equipment.—During the period 1943-52, there was an increase of 1,660,204 in the number of telephones in use, representing an advance from 14.3 to 23.2 telephones per 100 population.