

laid across the Atlantic by Teleglobe Canada and three other carriers. CANTAT I was laid in 1961 with 80 circuits but now CANTAT II, with 1,840 circuits, meets the growing demands for overseas telecommunications between Canada and Europe.

16.1.1.5 Telecommunications in the North

Anik, the Inuit word for "brother", is particularly appropriate to the Canadian satellites series. The advent of Anik I opened a new era of telecommunications in the north providing reliability, flexibility and new services, including television broadcasting, to remote communities not served by terrestrial communications facilities. Previously, northern communication was accomplished mainly by tropospheric scatter systems and high-frequency radio. Both methods, as well as microwave and land line facilities, are still used as dictated by circumstance.

Telecommunications services in the remote north are operated by Ontario Northland Communications, British Columbia Telephone Company, CN Telecommunications and Bell Canada. BC Tel provides telecommunications services along the west coast to Alaska.

CN Telecommunications covers an area that runs north through British Columbia from Fort St. John and includes all of the Yukon Territory and Northwest Territories west of longitude 102°. Bell Canada serves points east to, and including, northwestern Ontario and from the Quebec border east. Ontario Northland Communications serves northeastern Ontario.

Within the vast expanses of the north, both CNT and Bell Canada automatic telephone exchanges are connected to the Canadian networks, and through them to the North American networks and through Teleglobe Canada, to overseas networks. Tropospheric scatter and the domestic satellite systems are used to penetrate the heart of the Arctic and connect to the North American continental telecommunications network. It is also possible to communicate within the coverage area through HF equipment with mining camps, oil and gas exploration sites, construction camps, outposts and other centres.

The basic network of satellite, microwave, radio and land line facilities together with the switched telephone and telegraph networks can be expanded to meet the growing needs in those areas for some time to come.

16.1.2 Telephone and telegraph statistics

Telephone statistics. In 1973 Canada had an estimated 1,049 telephone systems compared to 1,201 in 1972; of these 985 filed returns with Statistics Canada compared to 1,170 in 1972 (Table 16.1). Although the number of co-operative systems declined from 1,072 in 1972 to 890 in 1973, growth in the telephone industry was particularly evident in the large telephone companies. The largest incorporated telephone company, Bell Canada, operates in Ontario, Quebec, Newfoundland and the Northwest Territories. In 1973 it owned and operated 7.1 million of the approximately 12.0 million telephones in Canada. The BC Telephone Company, also owned by shareholders, operated 1.1 million of the total telephones in 1973.

Table 16.2 shows the distribution of telephones by province in 1973. Of the total 71% or 8.2 million were residential telephones and 3.4 million were business telephones. Ontario had the most telephones per 100 population with 57.1 followed by Alberta at 54.8 and British Columbia at 54.5. As Table 16.3 shows, Canadians averaged 854 calls per person in 1973.

Table 16.4 shows the capitalization, revenue and expenditure of telephone companies together with the number of employees, salaries and wages paid for the years 1969-73. Provincial figures for 1973 are given in Table 16.5.

Telecommunications statistics. Nine telecommunications companies operated in Canada during 1973. 1973 showed the first year of commercial operations of Telesat Canada which added almost \$19 million in revenue to the operation of commercial telecommunications carriers. The business of telecommunications companies appears to be changing from direct handling of messages to the leasing of equipment and channels for transmission of messages by others. Increasing revenues from the latter source of income are the main factor in the rise of total operating revenues (see Table 16.6). The property and equipment for these nine telecommunications companies increased by \$145.0 million to \$789.3 million in 1973, from \$644.2 million in 1972. These figures include the investment in property and equipment by Telesat Canada, which in 1973 was reported at \$85.7 million.