

equipment costs, providing new jobs and developing the worker skills that will be in demand in the 1980s and 1990s.

14.3.5 Telecommunications in the North

Telesat Canada's Anik satellites opened up a new world of communications in the North, reaching into remote areas where surface systems encounter difficulties, and providing links with the populous South. They also brought a range of radio and television broadcasting services into communities beyond the reach of terrestrial networks. By 1980 Telesat Canada was operating about 40 satellite earth stations in Yukon and Northwest Territories, most of them capable of receiving radio, television, teletype, data and telephone signals.

Growth in northern telephone services. Radios operated by business, government and missions constituted the only public communications service until 1961. By 1967, there were 2,800 telephones in the western half of Northwest Territories, but by the end of 1980 there were 18,662, an increase of about 570%. A total of 99% of telephone users could, at the end of 1980, dial long distance directly.

DOC announced a northern communications assistance program in January 1977, aimed at providing every NWT community with basic and local long distance service by 1982. The federal government planned to contribute \$7.2 million for facilities and Bell Canada and NorthwesTel, created in 1980 as a subsidiary of Canadian National Telecommunications, were expected to commit a similar amount for local exchange equipment and operation of telephone circuits.

NorthwesTel provides telecommunications service in northern British Columbia, Yukon and Northwest Territories in an area of 2.35 million square kilometres with a scattered population of 67,000. Besides serving 39,169 telephones in 59 communities, the company provides telex, data communications, leased circuitry, telegram and radiotelephone services and has a continuing program of replacing electromechanical switching equipment with new solid-state digital equipment. NorthwesTel negotiated a 12-year agreement in 1980, with Alascom, an Alaskan telephone utility, for the lease of 600 voice channels for two years and an additional 1,500 channels for 10 years from the Alaskan-Yukon border to the Canada-US border in southern Alberta.

Bell Canada serves the eastern half of Northwest Territories up to the Arctic Circle, as well as northern Quebec. Bell Canada installed a new satellite service on Little Cornwallis Island during the fiscal year 1980-81 and added 29 long-distance telephone circuits to existing earth stations serving 24 communities. The trilingual telephone directory is in Inuktitut, English and French.

14.3.6 International services

Teleglobe Canada, a federal Crown corporation, links the domestic telecommunications carriers and almost every country outside North America. The mandate of the corporation is to establish, maintain and operate Canada's external telecommunications services and co-ordinate them with services of other countries.

Canadians now telephone around the world almost as easily as they call across town, in most cases by direct dialing. Teleglobe's telephone circuits link Canada to more than 180 countries, protectorates and territories. Teleglobe also provides the overseas connection for record communications — telex, TWX and telegraph — to 202 countries.

Teleglobe offers a public data service which interconnects with the domestic data networks of Telecom Canada and CNCP Telecommunications. This packet switching service enables users in overseas countries to have access to data bases in Canada.

New types of international message services have evolved because of the trend toward office automation and electronic mail. Teleglobe inaugurated a public high-speed digital service in 1979, designed to render a faithful, high-quality reproduction of information, whether in text or graphic form; this service reached nine overseas countries by 1981. Teleglobe and Canada Post began an experimental electronic mail service in June 1980, capable of interconnecting major Canadian cities with facsimile networks in the United Kingdom, the Netherlands and Switzerland. Teleglobe was also developing new textual communication services, including a capability for international communications among word processing terminals.

To determine the position videotex technology would occupy in the international marketplace, the Crown corporation initiated a \$4.1 million trial of Telidon. The data base for this trial was expected to have about 100,000 pages.

14.4 The broadcasting system

The broadcasting system, like the telecommunications system, evolved to meet the needs of a comparatively small bilingual and bicultural population in a vast country. One problem has always been to provide an adequate broadcasting service for all Canadians, even those living in remote places. This problem was compounded by the fact that the majority of Canadians live within 100 miles of the US border, and Canadian broadcasters have always had to compete for audience and advertising revenue with a dynamic and better financed US industry.

The first Canadian radio broadcast took place in 1919. Radio stations, most of them privately owned, sprouted across Canada. By the late 1920s, many