

terrestrial and satellite networks and broadcast on local transmitters in English and in native languages.

International broadcasting. Radio Canada International (RCI), the foreign service of the CBC, was established in 1945 and broadcasts on shortwave to Eastern and Western Europe, the United States, Mexico, Central and South America, the Caribbean, Africa and the Middle East in 11 languages — Russian, Ukrainian, Polish, Czech, Slovak, Hungarian, German, Spanish, Portuguese, English and French. It also feeds weekly programs by satellite to Japan (in Japanese) and Hong Kong (in English) and supplies music and spoken work transcriptions to 800 foreign radio stations.

14.2.2 Private broadcasting

Canada can claim the first scheduled broadcast in North America — a musical program on May 20, 1920, on XWA in Montreal. It is likely that XWA, which was started by Marconi, began experimental broadcasting in 1919 and later became CFCF, was also the first radio station in North America. By 1985, there were 465 privately owned radio stations in Canada.

Revenues of private radio grew to over \$623 million in 1986 from \$579 million in 1985 and almost \$559 million in 1984. Private radio profits before taxes reached \$25 million in 1986, following a drop to \$19 million in 1985 (the figure was \$25 million in 1984). During the same period the profits before taxes of private television climbed steadily from \$167 million in 1984 to \$182 million in 1985 and \$184 million in 1986.

The trends can be partially explained by the greater dependence of radio stations upon local advertising, which brings in less revenue than national television commercials. Private radio stations also collectively employed more people and paid out more wages than the private television industry.

In addition to the private stations affiliated with the CBC, Canadian private television includes the Canada-wide CTV English-language network; Global Television, an English-language network based in Ontario; Le Réseau de Télévision Quatre Saisons, a network which made its debut in September 1986 and is based in Quebec; the TVA network, which has originating stations and several rebroadcast facilities in Quebec and one facility in the Atlantic provinces; the Atlantic Satellite Network, a regional satellite-to-cable service; and various independent stations located primarily in large metropolitan centres. Among the latter are several stations broadcasting in the languages of some of Canada's ethnic minorities.

In 1985, four Canadian provinces owned and operated educational television networks: Radio-Québec, TVOntario, Access Alberta (which also operates an educational radio network), and the Knowledge Network in British Columbia. In 1987, TVOntario started a French-language network to complement its existing service which broadcasts primarily, though not exclusively, in English.

14.3 Federal policies, programs and regulations

The Department of Communications (DOC) provides technical certification for broadcasting undertakings and regulates use of the radio frequency spectrum. It ensures that Canadians have access to a broad range of communications services at reasonable cost, and assures the orderly development and introduction of new information technologies, in light of Canada's economic, social, political and cultural concerns. The Minister of Communications is responsible to Cabinet and Parliament for the federal government's communications policies and programs.

In 1980, the government transferred the arts and culture branch of the Secretary of State Department to the Department of Communications in recognition of the increasingly close relationship that was developing between the production of cultural content and its means of distribution, particularly as new information technologies transformed the communications field.

The first economic and regional development sub-agreements in the field of communications development were signed with Manitoba in 1984 and Quebec in 1985. Private-sector technology applications, funded in Manitoba, include an automatic meter-reading system and a variety of electronic publishing and expert systems projects. The Quebec communications agreement is used primarily to top-up private-sector investment in French-language software, program development and information technology R&D and the French-language broadcasting industry.

Telecommunications and technology. DOC operates two laboratories, the Communications Research Centre (CRC) located at Shirley's Bay, Ont. and the Canadian Workplace Automation Research Centre (CWARC) located in Laval, Que. The CRC carries out research in communication devices and components, broadcast technologies, communication technologies and space technologies. CWARC is involved in all aspects of applied research in computerized office systems. It carries out research in such diverse aspects as integrated work stations, open systems