

licence: coast, land, mobile, ship, earth and space. Various categories of service may be authorized in each class including public commercial, private commercial, amateur and experimental.

The number of licensed radio stations in Canada in the year ended March 31, 1979 was 1,413,537. These include stations operated by federal, provincial and municipal departments and agencies, stations on ships and aircraft registered in Canada and stations in land vehicles operated for public and private purposes. Broadcasting undertakings under the Broadcasting Act are excluded from this list.

The number of radio licences in Canada in 1978-79 increased by 12.6% over the previous year. This represents a levelling off of growth in the number of radio stations. The increase the previous year was 40.3%.

This reflects a slower rise in the number of citizen's band radio or General Radio Service (GRS) licences. There were 951,849 such licences in effect in 1978-79. But the issuing of new licences fell from a peak of 53,000 in April 1977 to an average of about 20,000 a month by September 1978. The department expects this rate of growth to continue and anticipates 1.5 million licensed units in service by 1983. Some see GRS as a prelude to the cordless telephone, a development which in the future may culminate in the integration of GRS, telephone communications and the new generation of computers.

GRS is not the only growth area. There is also a growing demand from commercial land mobile radio services, such as those used for transportation, shipping, police and fire. There were 300,467 such licences in effect during 1978-79, and 284,933 the previous year. Such is the demand that existing spectrum allocations could become saturated in major urban areas by the 1980s. To resolve the problem, the communications department has reviewed ultra high-frequency (UHF) spectrum allocations, particularly in the 406 to 960 MHz band used for such services as UHF TV broadcasting, land mobile, amateur radio and others. A new allocation policy for this range of spectrum, announced in March 1979, provides for additional land mobile services.

Licensing involves assigning specific frequencies to each station. Bands of frequencies are allocated for various types of services, often on a shared non-interference basis. To ensure efficient use of the spectrum, it is necessary to select the appropriate frequency for a radio station, evaluate its compatibility with other users of the electromagnetic spectrum, register the licensee domestically and, in some cases, notify the International Frequency Registration Board of the International Telecommunications Union (ITU) at Geneva. Included in a master international frequency register, Canadian assignments are given protection from interference by foreign stations.

Standards for radio transmitters are drawn up in consultation with the electronics industry, organizations, associations and the public. The standards take into account technical factors affecting frequency spectrum utilization, reliability of apparatus, and compatibility under conditions of service. DOC develops standard specifications and tests apparatus.

DOC enforcement activities include technical inspection of all radio stations. This involves: monitoring and measurement of radiated signals to ensure compliance with regulations and conditions of licensing; location and suppression of radio interference; technical examination of candidates for radio proficiency certificates necessary for operators of radio stations; and direction of prosecutions in court. These enforcement activities are carried out in five regional offices, 44 district offices, 10 fixed monitoring stations, eight mobile monitoring vehicles and 13 regional spectrum observation centres.

## International services

16.4

Teleglobe Canada, a federal Crown corporation, provides the link between domestic telecommunications carriers and almost every country in the world. The mandate of the corporation is to establish, maintain and operate Canada's external telecommunications services and co-ordinate them with the services of other countries.