

long-distance network to the distant Data-Phone which, in turn, converts the signals into information acceptable to the associated business machine. It is expected that, within the next ten years, the volume of machine-to-machine communications will equal that of regular long-distance calls.

New optional services being actively planned and engineered will provide even more expansion and flexibility in the long-distance field. One of these services will extend a customer's flat-rate calling area just as far as he wants in Canada and, eventually, just as far as he wants on the Continent. The charge for this service will be based upon the extent of and the number of telephones within the area chosen. Another new service will permit a customer to rent a band of frequencies over which he may transmit the mixture of services—voice, teletype and data—that best suits the needs of his business. The rate for such a band of frequencies will be lower than that for the same number of facilities rented individually.

All-Number Calling—a telephone numbering plan which uses seven figures instead of two letters and five figures—was put into operation in many communities in Canada and the United States during 1961. This system is being introduced gradually to eliminate the potential problem of a shortage of usable exchange prefixes. On a continent-wide basis it will almost double the total of such exchange prefixes and will provide for more accurate dialing.

The northward extension of industry in Canada has, of course, required the northward expansion of telephone communications. The British Columbia Telephone Company operates a radio chain from Vancouver up the coast to Kitimat. Uranium City in northern Saskatchewan, located in a vast area of muskeg and swamp, is provided with communications through a radio network out of Prince Albert, Sask. In Manitoba, the radio-telephone service reaches out to a large number of isolated settlements and bush camps and provides communications for aircraft and for boats plying Lake Winnipeg. Goose Bay in Labrador and the Schefferville area of the Quebec-Labrador boundary are now in immediate telephone contact with the remainder of the world through a radio relay network operated out of Quebec City through Sept Îles. A branch of this system, built in 1959, extends long-distance service to the new mining settlement of Gagnon, Que. In the same year, Bell Telephone opened its farthest-north exchange at Frobisher Bay on Baffin Island.

The summer of 1961 marked the further expansion of northern communications with the inauguration of radio-telephone service for that great northern area between the Quebec coast of Hudson Bay and the Atlantic coast of Labrador. Radio facilities linked directly with the long-distance system permit communication from within this vast sparsely populated area to virtually anywhere within the civilized world. Focal point of the radio network is a base station located near Alma, Que. It serves all settlements desiring service wherever they may be located throughout the thousands of square miles which comprise this immense region. As additional requirements arise, either in established or new communities, radio-telephone service will be provided.

Numerous flexible services are provided by Canadian telephone companies for business and industry. Special conference circuits can be quickly arranged, enabling widely scattered business interests to discuss their affairs without the inconvenience and expense of travel. Telephoto and facsimile services provide photographic copy direct from the originator. Radio installations link the traveller with the regular telephone network, providing mobile service for such users as highway departments, trucking and construction firms, fire and ambulance services and police departments. Oil pipeline companies also use the service as part of their communications arrangements to maintain contact between central offices, storage tanks, pumping stations and control units.