

At the end of 1963, there were about 6,000 customer installations in Canada for Canadian National-Canadian Pacific telex service; each installation has access to the other and also to world-wide telex networks in other countries.

In 1963, Canadian National-Canadian Pacific completed construction of a high-grade microwave radio relay system between Montreal and Vancouver. This system is capable of carrying 600 voice channels which are used for the transmission of all forms of voice and record communications and can be expanded readily by the addition of radio channels to provide network television service or increased circuitry for general communications use. This system links up with the railway microwave facilities running east from Montreal to St. John's in Newfoundland, and thus completes the railways' transcontinental microwave capability.

Increased civil and military interests in the Canadian northwest have created a need for all forms of communications services and to meet this need the Canadian National Telecommunications (CNT) has undertaken several major projects:—

- (1) A 1,200-mile microwave system between northern Alberta and the Yukon-Alaska border was completed in July 1961. Starting at Grande Prairie, 450 miles north of Edmonton, this network proceeds northward through Alberta, crosses the northeast corner of British Columbia and, following the Alaska Highway through Yukon Territory, joins an interchange system at Mount Dave on the Yukon-Alaska border. At Grande Prairie, the system joins the Alberta Government telephone system running southward through Alberta to the Canada-United States border, where it connects with United States networks.
- (2) Construction was completed in mid-1961 of a land-line communications network stretching around Great Slave Lake from Fort Smith on the Alberta-Northwest Territories border to Yellowknife, bringing the full range of communications services to residents of Yellowknife, Fort Rae, Fort Providence, Hay River, Pine Point and Fort Smith. This network is connected to the 'outside' by a microwave system between Hay River and Edmonton; the section of the microwave system within the Northwest Territories was constructed by CNT and the Alberta section by Alberta Government Telephones.
- (3) Construction was completed in late 1962 of a tropospheric scatter communications system that extends from Hay River in the Northwest Territories to Lady Franklin Point on Victoria Island in the Arctic Archipelago. This system is used for defence purposes and provides various types of communication service to such outlying communities as Coppermine and Cambridge Bay.
- (4) A 1,020-mile telephone pole-line is under construction down the length of the Mackenzie River from Hay River to Inuvik which, when completed in 1966, will provide simultaneous long-distance telephone, teletype, telex, commercial telegraphs, air operational and weather communications to Fort Simpson, Wrigley, Fort Norman, Norman Wells, Fort Good Hope and Inuvik. Aklavik, Fort McPherson and Arctic Red River will be linked to the system at Inuvik by very high frequency radio communications. Service will be instituted at successive communities as construction of the line proceeds northward.

**Telegraph Statistics.**—There were nine telegraph and cable companies operating in Canada during 1963 but, as already stated, telegraph service is provided mainly by the telecommunications departments of the two major railway companies. The Canadian Overseas Telecommunication Corporation (see p. 832), is responsible for maintaining and operating overseas telecommunication services. Total cost of property and equipment for all telegraph and cable companies increased by 16.3 p.c. during 1963 from \$336,374,000 to \$391,173,000. The number of telegrams sent continues to decline year by year, giving way to other types of message transmission, but the number of cablegrams sent has been rising. The business of telegraph and cable companies appears to be changing from one of handling messages directly to one of leasing equipment for the transmission of messages by others. Revenues from the latter source have been increasing over the past several years and have been the main factor in the steady advance in total operating revenues.