

Business boosters

Cross-Canada cellular communications network

Mobile cellular radio-telephone service, which allows users to place calls from any location within a cellular coverage area to virtually anywhere in the world, was inaugurated last year in Canada by Bell Cellular of Toronto and Cantel Inc. of Montreal.



Cantel's portable cellular telephones are available with several options including memory re-dialling for up to 30 numbers, call forwarding and three-way calling.

Bell Cellular, a unit of Bell Canada Enterprises Inc. of Montreal, and Cantel are the only two competitors in the Ontario-Quebec market. The service has been introduced in Montreal, Toronto, Hamilton, Oshawa, Ottawa, Quebec City, London and Kitchener, and both companies expect to have all major centres in the two provinces, and major highway routes between the cities, covered by the end of 1986.

Cantel is the only national cellular service operator, and is offering the service in 23 Canadian metropolitan areas, competing with the provincial or regional telephone company in each locale. Cantel also intends to expand its cross-country network to include rural areas of the country.

Wireless transmission

Cellular phones are the latest form of wireless mobile communication. They use radio frequencies rather than telephone wires to transmit calls through the existing telephone network. Callers can make or receive calls from a car, truck, boat, office, home, remote job site or street corner.

All local and long distance calls can be dialled direct. The user can make operator-

assisted calls, calling-card billed calls and local and long-distance information calls.

The cellular network, which offers vastly improved voice quality and ease of use compared with traditional mobile phone communications, transmits voice or data signals across small areas called cells.

Each cell site has a range of about 20 to 28 kilometres and 333 channels. The cells are interconnected to other cells through a central switch.

As cellular users with a phone in their car drive from one cell into another, their calls are automatically "handed-off" through computerized electronic switching technology to an adjacent cell without interruption. The cell receivers are installed on tall buildings and other elevated structures at several locations throughout a metropolitan area.

Callers using a cellular telephone can reach parties on the wireline telephone system since cellular systems interconnect with both the local telephone system and the long distance network.

Range of models

The phones vary greatly from portable and "briefcase" models to permanently-installed vehicle units and convertible units that are installed in a fixed location but can be detached and taken anywhere.

Ranging in cost from \$2 500 to \$7 000, the phones are available with a number of different features such as memory re-dialling, horn-alert and a hands-free option, which

allows the driver to keep both hands on the wheel while talking. Call forwarding, call waiting and three-way calling options can also be included.

The phones are manufactured by a number of firms including NovAtel Communications Limited of Calgary. The Voyager phone made by NovAtel is sold by Cantel dealers and can be used on the Bell system or on other international cellular systems.

Compatibility

Cellular radio-telephone services are expanding worldwide and are currently in operation in the Nordic countries, Britain, Japan and the United States. To ensure compatibility between the Canadian and US systems, the federal Department of Communications and the US Federal Communications Commission have developed joint standards.

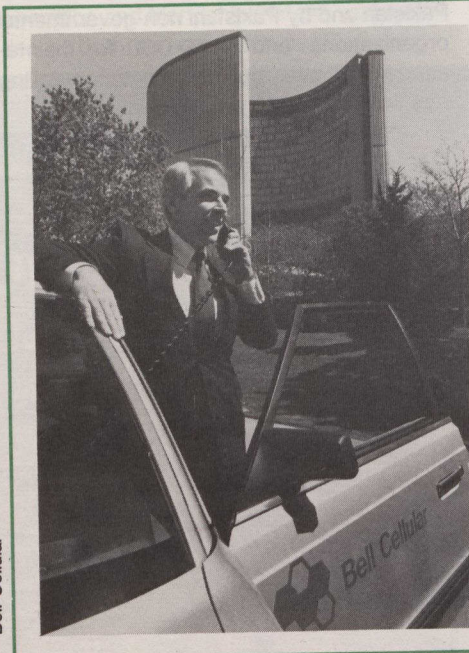
Both Bell Cellular and Cantel have signed "roaming" agreements with similar US-based cellular radio-telephone companies. The term "roaming" refers to a subscriber who makes use of the service of another company in another region or city.

Bell Cellular's first "roaming" agreement was with Bell Atlantic Mobile Systems, a subsidiary of Bell Atlantic Corp. of Philadelphia. Cantel signed a similar agreement with Ameritech Mobile Communications Inc., a subsidiary of Chicago-based American Information Technologies Corp.

Cellular users

Initially, cellular users are expected to be business people and professionals who

Cantel



Bell Cellular



Cellular telephones will save productive work hours for business people and professionals as they can make telephone calls from their automobiles to almost any location.