

# Novatel: Canada's Cellular Phone Company

## 公司動向

Although Novatel has become a well known company in Canada in a short space of time, and its Aurora decentralised cellular telephone system made a big impact in the telecommunications industry there, both company and product are relatively unknown in Hong Kong.

This situation will shortly change, however, according to the company vice president in charge of sales, Peter Kawchak, who visited a number of Asian cities, including Hong Kong, last month.

Referring to mobile cellular communications systems as "the most exciting breakthrough in telecommunications technology for more than a century," Kawchak predicted that this type of system would be constructed in "almost every Asian country in the next 10 years, dramatically extending the social and economic cords of simple everyday life."

Novatel, a joint-venture company owned by AGT and Alberta company Nova, was established to develop an entirely new type of mobile communications system for Alberta. The provincial Government has long operated the world's largest mobile telephone network — catering to a population of only two million people in an area of more than 250,000 square miles.

Once the network became overtaxed in the mid-1970s, it was decided that rather than upgrading a system tied to old technology, a system would be developed combining the advantages of state-of-the-art computer technology with the most effective utilisation of an existing land phone network.

By doing away with central switches, the resulting parallel networks, and the need for backhauling, it is claimed that the Aurora system can save up to 40% on installation and 60% on operating costs.

The central switch is eliminated because each cell in the Aurora system routes all voice traffic to the nearest telephone exchange. Thus, the system uses the



*Jim Green, left, the president of Novatel demonstrates an Aurora phone as AGT vice president Hal Neldner looks on.*

existing telephone network, and its switches, to the fullest extent possible.

Being modular and decentralised in design, Aurora is as economical and efficient in rural situations as it is in an urban environment. With minimum software modifications, it adapts to small, medium or large capacity operations. It allows easy expansion of a system without costly replacement of hardware.

The telephone themselves are unique in that they can be used with both cellular and non-cellular systems. Unlike other car telephones, they do not have to be fixed in and used in a car. Nor do they have to be connected to phone lines like conventional home or office phones.

In countries where delivery and installation of a telephone can take months, they are a great advantage as a cellular phone can be bought and used on the same day. Pricewise, however, they are expensive and out of reach of most household budgets but as production technology improves and the phones are mass produced the price is almost certain to drop dramatically.

Features which make Aurora more versatile than conventional phones include a memory which can store 20 numbers of

16 digits each, a LED display panel and last number recall for visual display and automatic redial. There is a scratchpad memory for number entry and retention during conversation and a choice of ringing options. An out of range indicator shows when the phone is too far from a satellite mobile centre to be used.

A major breakthrough for Novatel came in mid-December last year when Canadian Communications Minister Francis Fox awarded the company the world's first national cellular mobile telephone license. Novatel president James Green said at the time that mobile cellular telephone communications is a technology whose time has come and the award of a national cellular license in Canada makes it the model for similar applications in other countries the world over.

The world market for cellular communications has been estimated at \$10 billion by 1990, and Mr. Green said that the export potential for Novatel is "almost breathtaking." In Canada alone, CANTEL and the major telephone companies will invest up to \$500 million establishing the national services and an additional \$300 million will be spent by