

soon be participating in a bold experiment with the revolutionary new technology of fibre optics.

To date, as far as we know, all fibre optics applications, experimental or otherwise, have been in urban or high-density settings. But with this Manitoba field trial, we are taking the promise of fibre optics from the crucible of research to an operating system in rural Canada.

The trial will deliver, through a fibre optics transmission system, single-party line telephone service, at least five and possibly more TV channels, FM radio and some two-way computer interactive signals to allow for such services as tele-shopping or information retrieval. The proposal, originating with the Manitoba Telephone System and supported by my Department and the Department of Industry, Trade and Commerce, is aimed at testing this new technology under actual environmental and market conditions.

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Unlimited potential

But the system is only one aspect of the trial. What we do with it is where an exciting potential lies. Private sector and government agencies, both federal and provincial, will be invited to provide experimental services through the system, so that subscriber reaction as well as the technology can be tested in a realistic environment. The extent of these services is theoretically limited only by our imagination but could include, for example, veterinary information, CANFARM management information services, consumer reports, weather, shipping guides, games, income tax help....

Why fibre optics? What is so different about this particular technology that makes it so promising for rural applications? First, it is expected that within a few years, it may be possible to run a glass fibre to a subscriber for less than the cost of a telephone line.

But the potential lies in the incredible information-carrying capacity of fibre optics. A glass fibre is capable of delivering not only standard telephone service, but cable television and other informational, education and entertainment services not yet dreamed of. Quite apart from the social impact of such potential, there is the prospect that the revenue from telecommunications services delivered through fibre could be doubled or tripled through fees for other services.

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Satellite technology

As promised, I have a second major program to announce today. And although it may appear unrelated to fibre optics, it too has the objective of developing new services from new technology.

Through what has proved to be considerable foresight, Canada first pioneered and is now the acknowledged leader in developments leading to the broadcasting satellite. As you all know, the highly successful *Hermes* program has provided us with a solid record of experience in the emerging technology of high-frequency, high powered satellites. We have undertaken a unique series of social and technical experiments using the *Hermes* satellite, through which doctors have guided operations from a distance, and have even helped in the delivery of a baby — the first by satellite — and northern communities have participated in exchanges of information and ideas.

Someone once said that with Canada's space program, we are looking at the stars with our feet on the ground. And it is true that we have carefully steered our space programs in directions which promise practical results.

In the wake of *Hermes*' success, I am pleased to announce the next phase of our program to develop new practical services through satellite technology: this time through Telesat Canada's *Anik B* satellite.

As many of you know, *Anik B*, scheduled for launch later this year, will carry a unique feature. In addition to channels operating at the traditional satellite frequencies, it will also, like *Hermes*, carry capacity in higher frequency ranges.

The significance of this hybrid feature is that *Anik B* can now be used to lead new satellite services from the experimental stage to the point where we can determine whether services can be introduced on an operational basis.

Parliamentary proceedings

...We are currently exploring various possible delivery systems for extending TV and radio coverage of Parliament.

If we in Canada are to expand our use of satellites for the delivery of broadcasting and other services, then the notion of a largely Canadian satellite program package becomes increasingly attractive. This would mean that the House broadcasts would constitute but one of a number of program signals distributed *via* satellite. The merit of such a package is

that it could bolster both hardware and software sectors of Canadian communications industry simultaneously. Although still in the early stages, the possibility of a national satellite program package is being examined by the Department, the CRTC, and some sectors of the industry.

Such a satellite program package would help to safeguard the cultural aspects of Canadian communications, as well as strengthen Canadian industry. Hence, by acting as a catalyst, the national distribution of the House proceedings could play an important role in promoting national broadcasting objectives.

Tapping Anik B's potential

Satellite distribution of the House of Commons is but one of many doors opening as a result of satellite technology. But there are others.

I am pleased to announce that the Department of Communications has accepted 14 proposals for pilot projects on the *Anik B* satellite which will be conducted by various groups across the country — all of which have developed creative and innovative approaches to the potential offered by new satellite services.

For example, Memorial University of Newfoundland plans to deliver educational health programs in seven isolated Labrador communities, through a two-way satellite communications system.

The Ontario Educational Communications Authority will extend its television network, *via* satellite, to several remote communities.

In Quebec, several provincial departments and universities will work with the Ministry of Communications and my Department to deliver health care, education and other government services to native and non-native people.

The possibility of an Inuit broadcasting service will be tested by the Inuit Tapirisat of Canada, and the group will also use the satellite for two-way educational services and teleconferencing.

Edmonton will be linked through one-way TV and two-way audio circuits with several northern communities for educational and social services under a project led by the Alberta Educational Communications Authority.

Among the technological projects are those dealing with data communications, remote sensing and radio propagation studies.

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