



HERMES experiments in telemedicine (left) linked doctors and nurses at remote northern hospitals to specialists in urban centres, such as London, Ontario. One in tele-education (right) allowed Carleton University, in Ottawa, and Stanford University, in California, to share graduate-level engineering courses. This class originated at Carleton.

Dunck, a nurse at St. Anthony, the education was valuable, but "it was really helpful to know that we were not nurses isolated at the end of nowhere, and that people were interested in sharing with us."

TELE-EDUCATION

L'Université du Québec is decentralized in order to provide the widest possible access to higher education. Its regional centres are linked through a telephone network for teaching, document exchange and management purposes. Its "Omnibus Network" HERMES project demonstrated how satellites may expand communications in the 1980s.

In another tele-education project, Carleton University in Ottawa and Stanford University in California shared classes on a daily basis over a six-month period. In contrast to correspondence courses, radio networks or public television, the Carleton-Stanford experiment allowed two-way course sharing. The two universities exchanged graduate-level engineering courses, providing academic credits to students at both ends of the system. Dr. Donald George, a Carleton professor of engineering, believes the experience can be expanded to include beaming instructional television from urban universities to remote locations and from a main campus to students throughout urban areas. According to Mr. Kenneth Down of Stanford's engineering department, the next step in the United States will be a proposal for a national satellite distribution system involving a consortium of 17 American universities.

Stanford was also involved with l'Université de Montréal in a bilingual colloquium that utilized simultaneous translation. In the opinion of both participating groups, the success of this event indicated the potential for future international telecolloquia on a much broader scale. Mr. Jean Cloutier of l'Université de Montréal also sees a potential for communication among Canadians who speak different languages.

INTER-COMMUNITY EXCHANGES

The "Saskébec Education-Culture Exchange" HERMES project involved interaction between two Canadian Francophone communities — Zenon Park in northern Saskatchewan and

Baie St. Paul, 3,000 kilometres away in Québec. The project was initiated by Dr. Bernard Wilhem of the University of Regina to alleviate some of the isolation of Zenon Park, a Francophone village of 400 people.

Exchanges between Zenon Park and Baie St. Paul included education projects, information about the historical development and geographic location of each community, agricultural perspectives and senior citizen activities. In addition to learning about others, each community rediscovered itself by explaining its life to its distant counterpart. Dr. Brian Rainey, of the University of Regina, believes that Saskébec prompted a renewed pride in the French language in Zenon Park as its citizens discovered that French could be a language of communications with the outside world.

Michel de Celles, Québec's Saskébec director, foresees using future communications satellites to support and improve the teaching of French in remote locations. Québec will use the recently-launched Anik B for a northern Québec pilot project to educate native and non-native people in remote regions and to conduct interchanges among native communities.

ANIK B

On December 15, 1978, NASA launched Telesat's Anik B. It replaces Anik A-1 in the 6/4-GHz bands and makes six 14/12-GHz channels available for commercial domestic service. Anik B weighed 923 kilograms at launch and is 1.8 metres wide and 11.3 metres high with its solar panels extended.

The Department of Communications is using its two-year lease on the 14/12-GHz channels for a series of pilot projects expanding the HERMES experiments. The seventeen sponsors of accepted plans include native groups, universities, provincial and federal government departments and private communications carriers, such as the Trans-Canada Telephone System. A Department of Communications experiment will use small earth stations for individual home television reception in remote areas not otherwise reached by television broadcasting. Each 1.2- or 1.8-metre earth station will be directly connected to a television set. Reception is not expected to be comparable to that of conventional antenna or cable systems.