

A satellite tracking station, Below: A space-craft high above the earth.





T is a little more than a decade since Canada became the first nation to join the Soviet Union and the United States in the space club. Beginning with Alouette I in 1962, and concluding with ISIS II in 1971, four indigenous scientific satellites have established Canada's place in space.

The space program entered a new phase in 1972 when the launch of Telesat — Canada's Anik I — gave Canadians the world's first ever domestic commercial telecommunications satellite system. Anik's twin, Anik II, was launched the following year.

Now Canada stands on the threshold of a new venture in space. Work is in full swing towards a late-1975 launch of the Communications Technology Satellite (CTS). Purely experimental, CTS will test the

technology and applications of a new generation of high-powered satellites designed to meet the communication needs of the 1980s.

Just over a year ago, a seismic ship abandoned its mission in the Arctic seas due to heavy icepack conditions. It cost the sponsor \$500,000 with few usable results. It was later learnt that there was a passage through the ice only 30 miles from where the ship had turned back.

Just over a year ago, one disadvantage of living in the North of Canada—though some might consider it an advantage—was the absence of television. Surface systems to relay television programmes were simply not feasible there.

All of this has now changed. Television pictures and sound are bouncing off two space satellites 23,000 miles above the Equator. The

satellites, Anik I and Anik II (Anik is the Eskimo word for brother), belong to Canada's national satellite communications system—the world's first domestic commercial space venture. Financed jointly by the government and industry, Telesat Canada, as the system is called, has been relaying signals from coast to coast since April 1973, and now provides telephone messages, data, private line voice, facsimile and public and educational radio and television services throughout Canada.

The success of the Aniks has put Canada firmly in the commercial space race, since the gold-plated electronic brain that does the work on board each Anik satellite was pioneered by the Canadian firm of Northern Electric, a subsidiary of Bell Canada, the telephone people. The electronic brains were produced