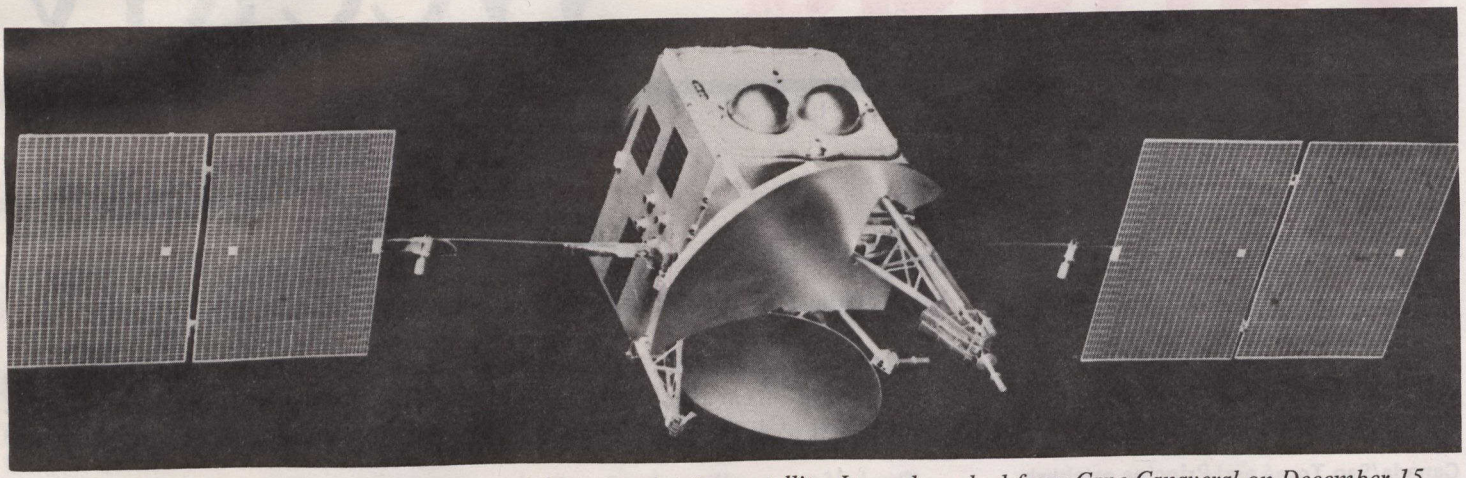


Artist's sketch of Anik B, *Canada's most advanced communications satellite. It was launched from Cape Canaveral on December 15.*

beginning with *Anik C* in 1981, will be worth hundreds of millions of dollars.

These projects are sponsored by a variety of both federal and provincial government departments and agencies from British Columbia to Newfoundland, with telecommunications common carriers, (such as the Trans-Canada Telephone System and Telesat itself) universities and native groups also participating.

At least 17 groups or agencies will be involved in these advanced communications pilot projects, aimed at refining new services, further examining the viability of others and making both new and potential users of satellite services more experienced in or aware of their most effective use.

Two-year leasing of the 14/12 GHz channels, with an option for three more, is costing DOC $32 million, including launch and extra operating costs attributable to the government program. Conversion of earth stations, administration and other departmental costs will run to another $4 million.

Through the $60 million Canadian-designed and built *Hermes* communications technology satellite – the world's most powerful – launched by NASA from the same Kennedy Space Centre pad on January 17, 1976 (see *Canada Weekly* dated January 28, 1976), Canada is a world pioneer in such uses of advanced technology satellites as testing methods of improving health care and medical education in remote areas, tele-teaching by satellite, putting native people in better touch with each other and proving that direct-to-home satellite broadcasting to tiny terminals is a technological reality.

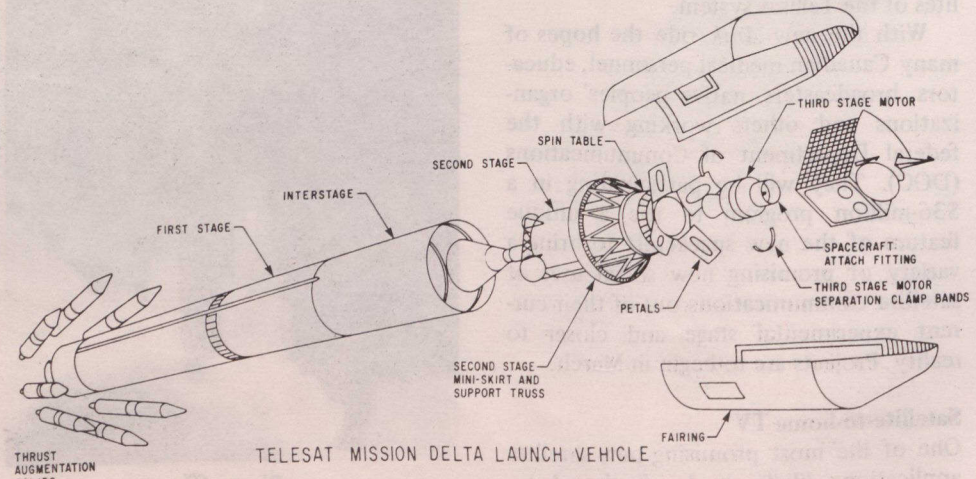
The *Hermes* program is now entering a new six-month phase of intensive TV experiments, after which it will wind down as the satellite ages. The United States, which has shared use of *Hermes,* is also drawing its program with the spacecraft to a close. With *Hermes* a large number of users in both countries have conducted short experiments in many areas. The more promising applications will be included in the all-Canadian *Anik B* program, which will provide users with much longer periods of satellite time than was possible with *Hermes.*

Recent advances in technology and possible mass production techniques for DBS (Direct Broadcasting Satellite) hardware are bringing Canadians close to the day when they will be able to receive high-quality TV service directly from a satellite – regardless of where they may live, or how far they are from a conventional broadcast transmitter or cable TV system. The department is negotiating possible arrangements with Canadian companies for field-testing such terminals with *Anik B.*

Among the advantages of satellites operating in the higher 14/12 GHz frequency band are greater satellite power, the ability, for certain applications, to use smaller earth stations and the fact that earth stations operating with satellites in this frequency band may be located in the centres of urban areas without interfering with conventional terrestrial communications.

Customers

Telesat Canada's major customers include the Canadian Broadcasting Corporation, the TransCanada Telephone System, Bell Canada, the Canadian Department of Communications and Teleglobe Canada. Telecommunications services *via* the Telesat system are also employed by the Global Television Network. Telesat facilities are frequently used to provide short term emergency communications and temporary restoral of terrestrial communications links. A recent example of the former was the use of the system to provide communications for the Government and military teams searching for the debris from the Soviet *Cosmos* satellite which crashed in the Northwest Territories last year.



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