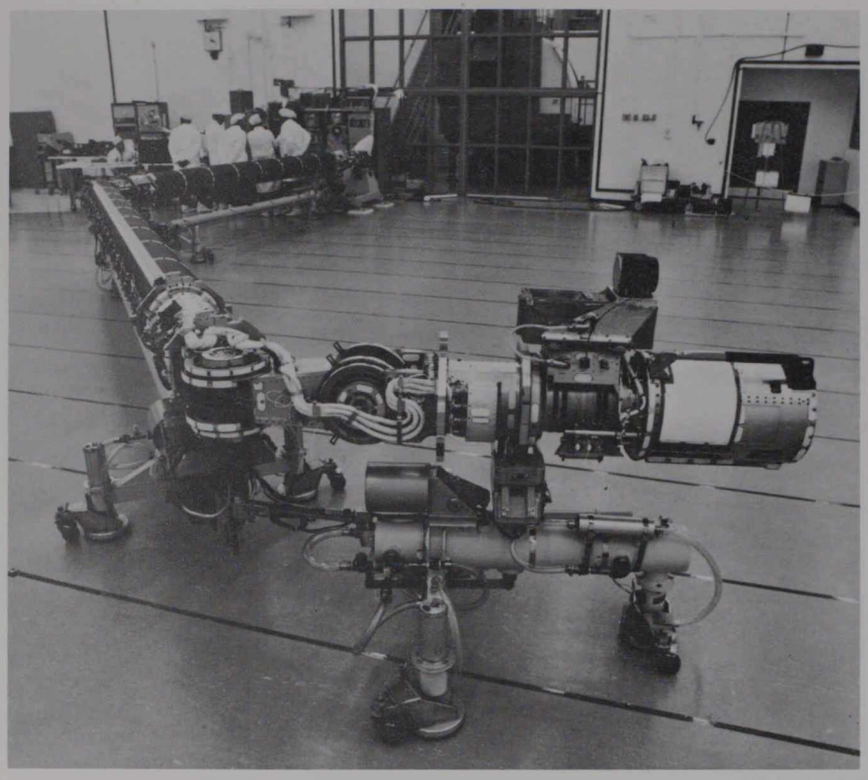
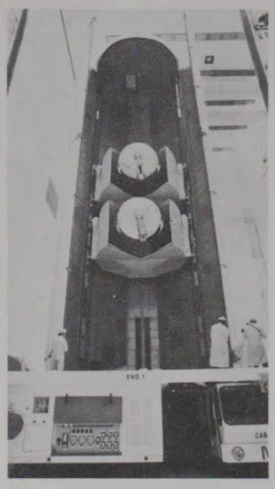
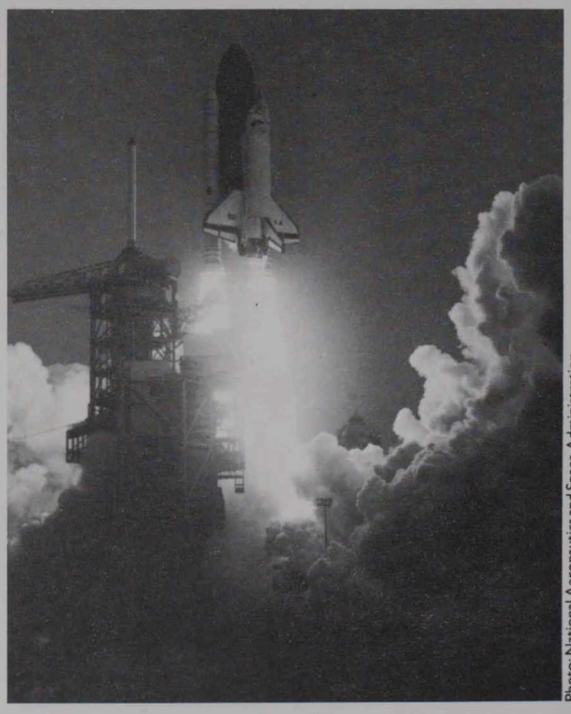




Above: Arranged in flight positions Telesat Canada's Anik C-3 rides beneath Satellite Business Systems SBS3 ready for near dawn launch on board the shuttle Columbia.

These two satellites are seen here after being loaded into an environmentally-controlled payload canister – a ground-based copy of Columbia's cargo bay – for transportation to the launch pad for final pre-flight installation.



Top: Remote Manipulator System (RMS) – the Canadarm under test at Spar Aerospace, Weston, Ontario.

Right: Liftoff on 11 November 1982 of Columbia with first commercial satellite payload for the Space Shuttle Program – SBS3 and Telesat Canada's Anik C-3.

Photo: National Aeronautics and Space Administration

The satellite is designed to pick up the traffic from ageing Anik A satellites now in orbit and to serve as a television satellite. It is the largest capacity Canadian satellite to date and is capable of carrying more than 900 one-way telephone calls or one television channel through each of its 24 transponders.

The most sophisticated communications package in space, Anik C-3 was launched into space from the American space shuttle Columbia on 13 November 1982. It was the fifth space mission of the Columbia and the first to be done on a commercial basis. Anik C-3 is capable of beaming back the complete programming of Canada's fledgling pay-TV industry and thousands of other signals simultaneously. Twice as powerful as any previous Canadian satellite, Anik C-3 is built to carry two colour television programmes and 1,344 separate voice signals on each of its 16 channels. Volume at full capacity will be 32 television programs and 21,504 voice transmissions, each stronger and clearer than any before. Signal clarity is guaranteed by the fourteen and twelve gigahertz frequencies on which Anik will operate. Far removed from the frequencies of most microwave communications, the new signals will allow Anik terminals to be located in busy city centres without interference. Dishes little more than a metre in diameter, economical for a vast new market of homeowners, will be able to pick up the signals when service begins this year.

The latest launch is covered under a $75 million contract by Telesat Canada with NASA for the launching of five new generation satellites by the space shuttle Columbia. The five satellites are worth about $160 million. Spar Aerospace Ltd. of Toronto, who also provided the remote manipulator arm for the shuttle, is the prime contractor for the two Anik D satellites and Hughes Aircraft Company of Los Angeles is the contractor for the three Anik C models. The five satellites will each be capable of reaching all of Canada from their stationary orbits 22,500 miles above the equator and are expected to accommodate all Canadian satellite communications traffic into the 1990s.

Canada has more satellites in space than any other country apart from the United States and the Soviet Union. This generation of satellites will keep Canada among the world leaders in commercial satellite communications.