

Canada always has had a keen—and active—interest in space. We were the third nation to design and build a satellite, following the Soviet Union and the United States. Our first spacecraft, Alouette I, was launched from a United States test range in September 1962.

In the intervening 21 years, we have maintained our position as a world leader in space, and we have actually been the pioneer in several important areas of space technology. Some of our innovations, such as broadcasting by satellite directly to individual homes, have brought considerable practical benefits not only to Canada but to the world.

Canada's greatest contribution has been in the field of telecommunications. In this, as in so many other things, necessity has been the mother of invention. Canada is huge—the second-largest country in the world—but is sparsely populated. Most residents live along a relatively narrow strip adjacent to the US border, but about five million are scattered in small communities across the rest of the country, as well as in mountainous regions close to the border. Because of widely separated settlements, rugged terrain and atmospheric irregularities, particularly in the far North, conventional methods of communications are either impossible, unreliable or too expensive. Before the advent of communications satellites, many Canadians in remote areas were virtually isolated from the rest of the world.

This is no longer so. Our technological excellence in satellite telecommunications has given us the most efficient domestic satellite communications system in the world and one of the best networks for radio, television, telephone, data and facsimile transmission. Satellites allow people in remote regions to have more access to the advanced services enjoyed by city dwellers.

More than 100 countries have shared the benefits of our experience in the conception, design and operation of the world's first domestic geostationary communications satellite system. We have done everything from telecommunications consulting to the production of complete satellite systems for the United States and other Western nations. We have also co-operated extensively with developing countries and, to a limited extent, with Communist states, such as the People's Republic of China.

The developments in space telecommunications are so numerous and occur so rapidly that no publication can be comprehensive and up-to-date. What this document offers is simply a September 1983 "freeze-frame" look at our activities in this exciting field.

