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The Future of SatCom in Canada: New Applications/Services

Paul Bush

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New Applications/Services

Introduction

Telesat is the world's most experienced commercial fixed satellite operator, and a highly respected consultant and partner in satellite ventures around the globe. The Company competes with other top international satellite fleets in providing telecommunications and broadcasting services to more than 275 customers throughout the Americas. With over thirty years of engineering and technical experience, Telesat is a diversified, end-to-end satellite services company with some 500 employees stationed throughout the Americas and on international assignment.



Today, Telesat is actively preparing for the next phase of national connectivity enhancements. Anik F2, planned for service in early 2004, will operate at C-band, Ku-band and Ka-band. Its advanced Ka-band payload will enable high-speed, direct-to-user multimedia interactive services, providing an effective solution to Canada's need for full national connectivity.

In moving to diversify and expand its own fleet to ensure a sustainable and competitive Canadian satellite system in the global arena, Telesat aims to develop next-generation satellite systems that meet the evolving requirements of Canadian consumers and businesses, while optimizing the use of available spectrum resources. This strategy has been actively supported by a number of key programs undertaken by Telesat.

Advanced Satellite Systems

Over the past several years, Telesat has actively investigated emerging technologies and developed new system concepts. The recent focus of this activity is the development of high-speed, two-way, multimedia communications facilities, both space and earth-based, to provide low-cost links to any point in the country.

Telesat's participation in the CSA/CRC Advanced Satcom Program, via the Trials Program, is a forerunner to the development of ground-based multimedia

platforms to be used with the Company's future commercial satellites. The objective is to provide affordable, high-speed links to Canadian businesses, institutions, and consumers located in all areas of Canada. The Anik F2 initiative, currently being implemented in cooperation with the CSA, will provide an advanced Ka-band multimedia payload with an experimental on-board processor which will enable a plethora of communications solutions for virtually every application under the government's Connecting Canada program.

Applications Development

In addition to the host of applications that Telesat has developed as part of the SmartCommunities work, other applications development work has been the subject of extensive investigations by Telesat in its R&D Lab.



One of the key applications pioneered by Telesat is telemedicine via satellite. The company has been involved in satellite field trials in several provinces involving numerous partners such as the Ottawa Heart Institute and Tetra/Memorial University.

These trials have used Telesat's satellite and applications development expertise to demonstrate the value of satellites in providing cost-effective and immediate medical care to Canadians living outside the major population centres, and to bring about needed services in a seamless fashion. Commercial services have resulted from this R&D work in at least two provinces.

Health Canada sponsored two trials that have been completed in Manitoba and British Columbia. A major tele-psychiatry project involving a number of satellite and terrestrial- hybrid based sites in remote regions of Ontario and Labrador is promoting "Healing Lodge" activities for the First Nations People.