



IEEE Mini-Symposium on Satellite Communications

Opening Remarks

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We've come a long way in 40 years!

- On 6 April 1965, the first commercial geosynchronous communications satellite - Early Bird (later renamed Intelsat I) was launched
- The initial emphasis in satellite communications was high-throughput, intercontinental, point-to-point links
- The role of satellite communications has evolved greatly since then with Canada taking a leading role:
 - 1967 - Canada participates in TACSATCOM studies
 - 1972 - launch of Anik - world's first domestic comsat
 - 1976 - launch of CTS (later Hermes) - world's first Ku-band comsat
 - 1978 - world's first direct-to-home broadcast (via Hermes)

- 1982 - MSAT program begins
 - 1982 - launch of COSPAS/SARSAT - world's first search and rescue satellite
 - 1987 - DOC and NASA win an Emmy for pioneering Ku band satcom through the Hermes program
 - 1990's - Canada participates in LSAT (later Olympus) and ACTS Ka-band programs
 - 1995/6 - MSAT 1 and 2 are launched
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- Since the mid 1970's, satellite communications has been an important and highly visible part of BC's Wireless Sector; the major players have strong international reputations

Where are we today?

- Current Satcom R&D activity focuses on turning “anytime, anywhere” into a global proposition
- Satellite communications began in the C band, and mobility applications initially focussed on UHF and L bands, but the leading edges of R&D activity have pushed above (into the Ku/Ka bands) and below (into the VHF bands)
- Technical excellence is important, but economics are key; developing sustainable markets is the key to developing a stable and prosperous Satcom industry
- Understanding the customer’s problem and the limitations of other solutions are the keys to developing effective Satcom-based solutions

Objectives

This event brings together academic researchers, industry experts and other members of the community with a common interest in satellite communications in order:

- to increase awareness of the local satellite communications community,
- to share recent accomplishments of the local satcom community, including recent research results and the introduction of new products and services, and
- to develop opportunities and promote cooperation between members of the local satcom community.

Technical Program

- Satellite Communications within BC's Wireless Cluster
- The Evolution of the ORBCOMM Land Mobile Satellite System
- Land Mobile Satellite Coverage in Urban and Suburban Environments
- Monitoring Ocean Buoys via Satellite
- A Portable Satellite Terminal for News Gathering or Two-way Data Communication
- Monitoring Remote BC Hydro Substations by Satellite
- Cross-layer Enhancement of TCP Split-connections over Satellite Links
- CASCADE: A Smallsat System Providing the Global, High Quality Movement of Very Large Data Files

Logistics and Facilities

- Presentation Format
- Facilities
- Refreshment Break
- Security
- Return of Badges