



St. John's is one of the oldest and most easterly cities in North America. It is in the Avalon region of Newfoundland, and there are dozens of things to see and do. Here are some suggestions:

- **Colonial Building...** The former Newfoundland Legislature prior to joining Canada. Special Marconi exhibit to mark the 100th anniversary of his achievement.
- **Signal Hill National Historic Site...** A spectacular view of St. John's, Marconi received the first transatlantic wireless signal here in 1901.
- **Titanic & Iceberg Interpretation Centre...** Travel back to 1912 to the most famous luxury ship ever built. Includes a Marconi display.
- **Admiralty House Museum & Archives** ...Former British Admiralty Wireless Station, now a communications museum.
- **Cape Spear National Historic Site...** The home of the oldest surviving lighthouse in Newfoundland, dating back to 1836.
- **Cape Race Lighthouse...** Began operating in 1856. In 1912 radio operators here received SOS signals from the Titanic.
- **Heart's Content Cable Station Provincial Historic Site...** After a failure of two earlier attempts, a permanent transatlantic telegraph cable was landed here in 1866.
- **Victoria Hydro Electric Development** ...The original turbines and generators offer a noteworthy opportunity to view a display of the early stages of hydroelectric power generation.

Organized by the IEEE History Committee and the IEEE History Center:

#### Organizing Committee

- Martha Sloan, General Chair
- Wally Read, Local Arrangements
- Earl Swartzlander
- David Mindell

#### Program Committee

- Mike Geselowitz, Co-Chair
- Rik Nebeker, Co-Chair
- David Morton
- Dave Hochfelder

The mission of the IEEE History Center is to preserve, research, and promote the history of information and electrical technologies. The Center maintains many useful resources for the engineer, for the historian of technology, and for anyone interested in the development of electrical and computer engineering and their role in modern society.

*IEEE History Center  
Rutgers University*



*Student History Paper Contest is sponsored by:*



*The Awards Luncheon  
is sponsored by:*



#### *Event Locations:*

*Breakfasts:* Hatcher Dining Hall

*Coffee Breaks & Lunches:* Junior Common Room,  
R. Gushue Hall

*All Sessions:* Rm. EN-2006, Engineering and Applied  
Sciences Bldg. (Poster Session: Engineering Lobby)



## *2001 IEEE Conference on the History of Telecommunications*

*Memorial University of  
Newfoundland*

*Wednesday, 25 July  
to  
Friday, 27 July*

*Organized by the  
IEEE History Committee  
and IEEE History Center*



## Wednesday, 25 July

**8:00 – 9:00** Breakfast

**9:00 – 9:15** Welcome and Introduction to the Conference

- Martha Sloan, Chair IEEE History Committee
- Michael Geselowitz, Director IEEE History Center

**9:15 – 10:30** Session 1: Technology and Business Strategy, Part 1 - Chair: William Aspray

- From the Cutting Edge to the Conservative Trough: The Telegraphy Business from the 1850s to the 1920s - Bernard Finn
- Partners in Crime: The Telegraph Industry, Finance Capitalism, and Organized Gambling, 1870-1920 - David Hochfelder
- Several Paths Leading to the Use of Small Earth Stations for Satellite Communications Systems - Robert M. Walp

**10:30 – 11:00** Coffee break

**11:00 – 12:15** Session 2: Technology and Business Strategy, Part 2 - Chair: W. Bernard Carlson

- Turning up the Clock Speed: Corning and the Fiber Optics Revolution - Margaret Graham
- History of Developments of Vapor-Phase Axial Deposition for Optical-Fiber Fabrication and Pioneering Work of Silica-Based Planar Lightwave Circuits - Tatsuo Izawa
- One World, One Telephone, One Love: Iridium, A Post-Cold War, Postmodern, Global-A-Go-Go Tale - Martin Collins

**12:15 – 1:15** Lunch

**1:15 – 2:30** Session 3: Submarine Telephony

- Chair: Frederik Nebeker
- The First Transatlantic Telephone Cables -Lenore Symons
- Reminiscences of TAT-1 - Jeremiah F. Hayes
- Milestones in Submarine Telecommunications - Robert Chapuis

**2:30 – 3:00** Coffee break

**3:00 – 4:15** Session 4: Politics and Communications Technology - Chair: David Hochfelder

- Communications in Troubled Times: the Case of Ireland and Newfoundland - Donard de Cogan
- Switching in a National Relation: Public-Private Cooperation in the Development of Telephony Technology in Postwar Sweden - Mats Fridlund
- Contention Control in Multi-Access Resource Systems - Gertrude Levine

## Thursday, 26 July

**8:00 – 9:00** Breakfast

**9:00 – 10:15** Session 5: Assessing Stature in the History of Telecommunications, Part 1 - Chair: Martha Sloan

- Cooke and Wheatstone, and Morse: A Comparative View - Brian Bowers
- The First Transatlantic Wireless Telegraphy: Collaboration or Competition between Marconi and Fleming? - Sungook Hong
- Promotion versus Manufacturing: Lessons from the Career of Nikola Tesla, 1885-1915 - W. Bernard Carlson

**10:15 – 10:45** Coffee break

**10:45 – 12:00** Session 6: Assessing Stature in the History of Telecommunications, Part 2 - Chair: David Morton

- Judge Harold H. Greene: A Pivotal Judicial Figure in Telecommunications Policy and His Legacy - Bill Yurcik
- Pushing Technology: David Sarnoff and Wireless Communications, 1911-1921 - Alexander B. Magoun
- Peter Goldmark: Technological Visionary - Karen J. Freeze

**12:00 – 1:00** Lunch

**1:00 – 2:15** Session 7: Poster Session with Presentations

Chair: Wallace S. Read

IEEE Student History Paper Competition winners:

- Rodrigo Carvallo-Fernandini, Catholic University of Valparaiso, Chile (Region 9) "The History of CTC and Entel: Precursors of Telecommunications in Chile"
- Cornelia Connolly, University of Limerick, Ireland (Region 8) "The History of Telecommunications in Ireland"
- Rahul Malik, Nanyang Technological Univ., Singapore (Region 10) "Spread Spectrum – Secret Military Tech. to 3G"
- Jakob Nebeker, University of Illinois, IL, USA (Region 4) "Science and Technology: Lord Kelvin's Atlantic Cable"
- Keiko Tanaka, University of Washington, Seattle, WA, USA (Region 6) "The Mobile Communications Environment in the European Union: Past, Present, and Future"

**2:15 – 2:45** Coffee break

**2:45 – 4:00** Session 8: Microelectronics and

- Telecommunications - Chair: Earl E. Swartzlander, Jr.
- The Telephone Answering Machine as a Reflection of Modern Society, 1877-2001 - David Morton
- Alan Kay: Transforming the Computer into a Communication Medium - Susan Barnes
- Towards a History of Computer Communications: the 1950's to the 1970's - Mischa Schwartz

## Friday, 27 July

**8:00 – 9:00** Breakfast

**9:00 – 10:15** Session 9: Science, Mathematics, and Telecommunications - Chair: Bernard Finn

- The "American Method": The 19<sup>th</sup>-Century Telegraphic Revolution in Finding Longitude - Trudy E. Bell
- Inventing the 'Black Box': Mathematics as a Neglected Enabling Technology in the History of Communications Engineering - Chris Bissell
- The Recent History of Secure Voice Communications - Earl E. Swartzlander, Jr.

**10:15 – 10:45** Coffee break

**10:45 – 12:00** Session 10: The Internet and Earlier Telecommunications Networks  
Chair: Michael Geselowitz

- Content Versus Connectivity in Telecommunications History - Andrew Odlyzko
- The Telegraph of Claude Chappe: An Optical Telecommunication Network for the 18<sup>th</sup> Century - Jean-Marie Dilhac
- Weaving the Once and Future Web: Comparative Telecommunications History in Public Space - Michael Sappol & Hunter Crowther-Heyck

**12:15 – 1:30** Awards Luncheon

Speaker: Arthur Maxwell House, Lieutenant Governor of Newfoundland and Labrador

**2:00 - ca. 10:00** Excursion

**Today In History:** Friday, 27 July 2001 marks the 135th Anniversary of the arrival of the cable-laying ship the Great Eastern on the shores of Trinity Bay, Newfoundland. An excursion to the site of the cable landing includes round-trip coach transportation to Hearts Content, a visit to the cable museum, a tour of the village, and a catered seafood dinner and Newfoundland music. We will depart from St. John's at 2:00 pm, and return approximately 10:00 pm.

