Canada Weekly

Ottawa
Canada

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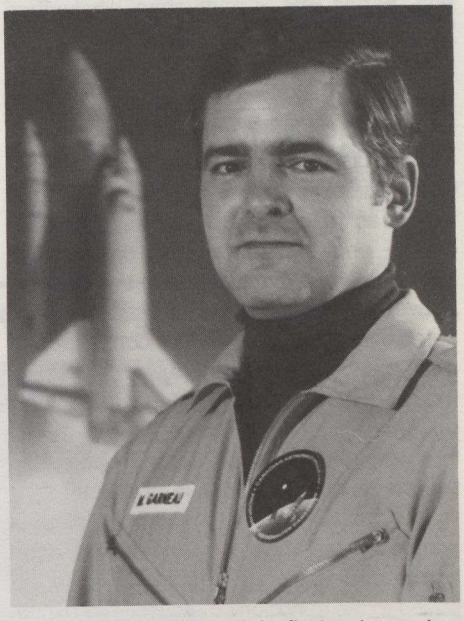
Astronaut program crest: *The design features a Canadian maple leaf overlayed with a vertical arrow, denoting Canada's upward reach to space. The arrow's shaft forms a human body lifting off into flight. The white circle inside the maple leaf represents both the head of the human form and the full moon rising in the starry field above the earth's horizon. A US space shuttle glides in earth orbit with the Canadarm extended skyward.*

External Affairs Canada
Affaires extérieures Canada

Canada's first astronaut soars successfully through space

Marc Garneau has become the first Canadian to orbit in space. And as payload specialist responsible for a number of Canadian scientific experiments aboard the United States' space shuttle *Challenger,* his contribution to Canada's space program is considered to be very important.

Dr. Douglas Watt of Montreal's McGill University, principal investigator for the space motion sickness experiment and other scientists from the National Research Council (NRC) in Ottawa, where many of the experiments were designed and developed, said they were delighted with the way Commander Garneau conducted their experiments in space. During a press conference at Johnson Space Centre near Houston, Texas, they reported that all but two of the ten Canadian experiments were completely successful.



Marc Garneau, Canada's first astronaut.

Near perfect launch

The eight-day space mission began with the almost perfect launch of the US space shuttle *Challenger* from Kennedy Space Centre in Florida on October 5. Precisely on schedule at 7.03 a.m., the shuttle exploded upward, and, within eight minutes, was in orbit.

During lift off, Canada's first astronaut was strapped to the floor between the storage lockers and the airlocks in the bottom of the shuttle. Marc Garneau was one of a crew of seven, the largest crew ever aboard a US shuttle in space.

In addition to carrying the largest crew and the first flight of a Canadian astronaut, this shuttle flight featured several other "firsts". Two women, Sally Ride and Kathy Sullivan were the first American women to travel aboard a spacecraft and Kathy Sullivan was the first woman to walk in space. In addition, Commander Robert Crippen was the first astronaut to make four shuttle flights, and the first test of satellite refuelling was done in space.

The orbit of the *Challenger* varied between 356 to 224 kilometres in space. Flying at a 57-degree inclination rather than the normal shuttle orbit, the space shuttle had a greater coverage of the earth and, on several orbits *Challenger* passed over Canada.

Marc Garneau's first recognition of Canada from aloft was the outline of Lake Winnipeg, then Hudson's Bay. On October 13, Kingston, Ontario, saluted *Challenger* as it passed over in its orbit by flashing all the lights in the city.

Wide range of tests

Work on the experiments began almost immediately. Ranging from taste-tests to complex photography, Canada's first astronaut spent about 12 hours a day working on ten experiments in space technology, space science and life sciences. Tests were aimed at helping the human body adapt to space, photographing the earth's atmosphere and developing a more accurate method of using Canadarm, the remote manipulator arm.

While Marc Garneau was working on the experiments in space, the other five Canadian astronauts, Roberta Bondar, Kenneth Money, Robert Thirsk, Bjarni Tryggvason

and Steven MacLean, provided technical support on the ground at the Johnson Space Centre. Commander Garneau transmitted information to them through an elaborate system of communications.

Space vision experiments

Two highly successful major space technology experiments conducted by Marc Garneau were the space vision system experiment development tests (VISET) and an advanced composite materials experiment (ACOMEX).

A special "space vision" system for the Canadian-built robot arm that is being developed by NRC, is expected to be ready for the shuttle mission in early 1986. As a prelude, Marc Garneau helped operate six on-board cameras measuring the location and distance of the satellite, ERBS, launched during the mission. He filmed the targets as the satellite moved away from the shuttle and transmitted the data to the Johnson Space Centre, where the distance between the satellite and the craft was computed every 30 seconds. The computer program is expected to be invaluable for helping the robot arm grab objects in space quickly on future flights and it could also result in a new generation of factory robots able to see parts and assemble products.

ACOMEX involved testing samples of composite materials attached to Canadarm and measuring any deterioration while exposed to the conditions of space. The experiment showed that space is an extremely harsh place in which to build permanent structures such as space stations. A tube plated with gold and then coated with an extremely thin layer of carbon developed visible rings where the gold showed through, proving that even the few molecules of oxygen in space can quickly erode surfaces.

"It is very clear that we're seeing a very aggressive environment in space," said David Zimick, principal investigator of the materials experiment. Light building materials of the future will probably be made of a carbon-composite material and several samples were carried on the Canadarm cargo arm.

Mr. Zimick said he believes the composite materials will show some microscopic erosion from just a few hours' exposure to space. Similar material samples are being flown on the side of a satellite to be brought back to earth after over a year in space.

The success of most of Commander Garneau's experiments will only be determined after weeks or months of study. But the investigators promised to publish most of the findings within a year.

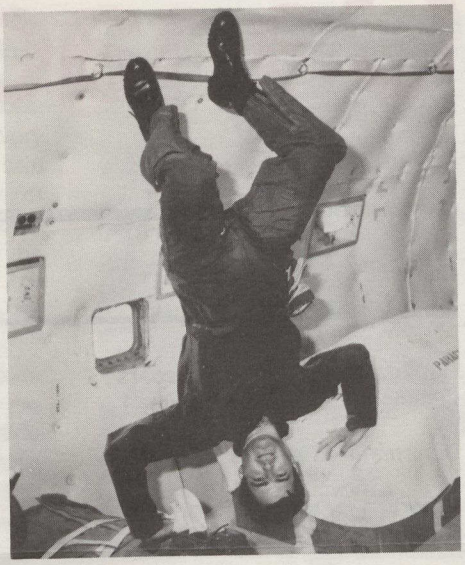
Space science tests

The conditions were not as ideal as expected for the two space science experiments conducted by Marc Garneau.

In the sunphotometer earth atmospheric measurements (SPEAM), Marc Garneau pointed a hand-held sunphotometer directly at the sun to help determine how much sunlight is scattered or blocked in the earth's atmosphere by dust, pollution or moisture.

The experiment to measure the amount of volcanic dust and pollution in the atmosphere at sunrise and sunset was difficult because the orbiter was usually in the wrong position at sunrise to get good results, said principal investigator Douglas Wardle.

Members of the space shuttle Challenger *crew,* (bottom row, left to right) *Jon A. McBride, pilot; Sally K. Ride, Kathryn D. Sullivan and David C. Leestma, mission specialists;* (top row) *Paul D. Scully-Power, oceanographer; Robert L. Cripper, crew commander; and Marc Garneau, Canada's payload specialist.*



Marc Garneau experiences weightlessness in NASA KC 135 jet flying parabolic curves.

Commander Garneau got fewer readings than planned in the experiment to measure the reddish electrical glow that appears around the shuttle in orbit, OGLOW. The best view of the glow occurs when a shuttle is manoeuvred sideways and charged particles in space hit the broad sides of the orbiter. A severe space storm on October 8, however, triggered "phenomenal" auroral displays over both poles, giving Marc Garneau a chance to take what scientists expect to be some of the best-ever pictures of the aurora.

Medical experiments

Six other experiments, space adaptation syndrome supplemental experiments (SASSE), dealt with the problems astronauts have encountered in adapting to living in zero-gravity environment. Space makes some astronauts sick, changes the sensation of taste and leaves them disoriented about the movement of their own arms and legs. Marc Garneau did a series of experiments to measure these effects. The medical experiments were immediately followed up with further tests on the ground. The results of some of these tests will not be made public.

Because of the restricted space aboard the space shuttle, the equipment for the experiment had to fit in a locker only 60 centimetres square. Mr. Garneau's personal effects had to fit in a space about the size of a large shoe box. He also took a few souvenirs into space, including the flags of Quebec City and Canada's provinces and a National Hockey League puck which will be used in the opening face-off at the all-star game in Calgary next February before being donated to the Hockey Hall of Fame.

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Disarmament ambassador

Douglas J. Roche, Canada's new ambassador for disarmament, will represent Canada at international meetings concerned with arms control and disarmament, particularly the First Committee of the United Nations General Assembly and the United Nations Disarmament Commission in New York.

He will also attend meetings of the Conference on Disarmament in Geneva and be the principal contact for Canadian non-governmental organizations and persons interested in arms control and disarmament.

Mr. Roche replaces George Ignatieff, chancellor of the University of Toronto.

Born in Montreal, Quebec, Mr. Roche, 55, has had a career in journalism and as a lecturer. He was founding editor of the *Western Catholic Reporter* in Edmonton, Alberta.

Mr. Roche was first elected to the House of Commons in 1972 for Edmonton-Strathcona. He was re-elected in 1974, 1979 and 1980.

Career in external relations

Mr. Roche has long been active in external relations and disarmament issues. From 1977 to 1979, he was the opposition spokesman on external affairs.

In 1979, he became chairman of the Progressive Conservative Caucus Committee on External Affairs and was appointed parliamentary secretary to the secretary of state for external affairs.

UN representative

Mr. Roche was a Canadian delegate to the thirty-fourth session of the General Assembly of the United Nations. From 1980 to 1984 he served as the international chairman of Parliamentarians for World Order and in 1980 he was named the vice-chairman of the Parliamentary Task Force on North-South Relations. In 1982, he was appointed a consultant to the Canadian delegation to the United Nations Second Special Session on Disarmament and, in 1984, he was elected president of the United Nations Association in Canada.

The Peace Award of the World Federalists of Canada was awarded to Mr. Roche in 1983.

Mr. Roche is the author of books and articles on politics, development assistance, and disarmament, including *Justice not Charity: A New Global Ethic for Canada, The Human Side of Politics,* and *United Nations: Divided World.*

Alberta-Korea ties celebrated in two countries

Ceremonies commemorating the tenth anniversary of Alberta's special relationship with the Korean province of Gangweon were held in Edmonton on September 26.

A special delegation from Gangweon, headed by the province's vice-governor, Ahn Chee Soon, attended the ceremonies which reciprocated a visit to Gangweon in August by Jim Horsman, Alberta's minister of federal and intergovernmental affairs.

In each of the visits Mr. Horsman and Ahn Chee Soon discussed matters of interest relating to the special relationship and exchanged ideas for increasing activities with various government and civic officials and educators in the provinces. In addition, a number of presentations were made to the host countries.

In the provincial capital of Chuncheon, Mr. Horsman opened an exhibition of 44 Alberta paintings on display at the Children's Centre gallery. The exhibition was organized and co-ordinated by the Alberta Society of Artists in co-operation with Alberta Culture.

Commenting on the visits, Mr. Horsman said that the provincial government is "pleased with the exchanges that have taken place and are being planned in the areas of education, culture, sports and recreation and particularly agriculture". He added that "trade opportunities increase as a result of the trust generated through the relationship".

The original proclamation of understanding between the countries was signed by Premier Peter Lougheed in 1974. Other formal provincial relationships exist with Hokkaido in Japan and Heilongjiang in China.

Tax treaty ratified between Canada and Egypt

Canapress

Secretary of State for External Affairs Joe Clark (left) meets with Egyptian Minister of Electricity and Energy during his visit to Ottawa to exchange the instruments of ratification for the tax treaty implemented to avoid double taxation between the two countries.

The Convention for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with respect to Taxes on Income between Canada and the Arab Republic of Egypt, that was signed in Cairo on May 30, 1983, came into force on October 2.

The instruments of ratification were exchanged in Ottawa between Canada's Minister for International Trade James Kelleher and the Arab Republic of Egypt's Minister of Electricity and Energy Maher Abaza.

The treaty is patterned on the Model Double Taxation Convention prepared by the Organization for Economic Co-operation and Development (OECD).

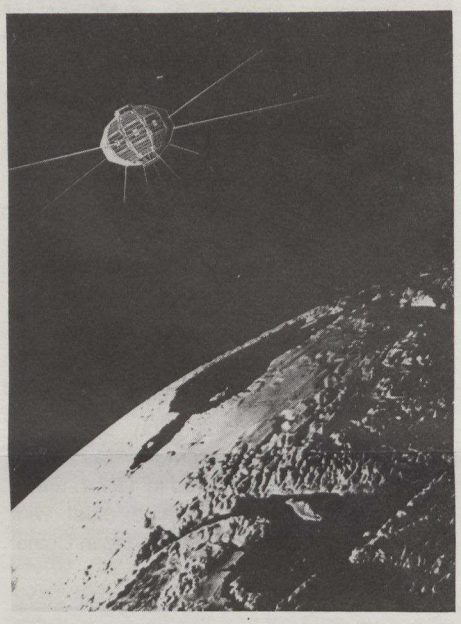
Treaty provisions that will have effect in Canada are:

— in respect of tax withheld at the source of amounts paid or credited on or after the first day of January 1985; and

— in respect of other Canadian tax for taxation years begining on or after the first day of January 1985.

The Convention provides necessary tax relief for Canadian companies and individuals operating in Egypt and ensures that their income is not subject to double taxation.

Major milestones in Canada's space program



1962: Alouette I
Alouette I, Canada's first spacecraft in orbit, produced a wealth of information about the ionosphere, the electrically-charged layer of the upper atmosphere that affects, among other things, long-distance radio transmission. Designed to operate for one year, Alouette I transmitted useful data for more than ten years and helped open markets around the world for Canadian space technology.

1965: Alouette II
An agreement between the United States and Canada following the success of Alouette I led to a series of International Satellites for Ionospheric Studies (ISIS), designed and built in Canada and launched by the United States. Alouette II, the first of the ISIS scientific satellites, compiled data on the ionosphere for almost ten years.

1969 and 1971: ISIS I and II
More sophisticated than the Alouette satellites, the ISIS spacecraft made a comprehensive study of the upper section of the ionosphere and produced the first pictures of the aurora borealis from space. After Canadian needs had been met, operation of both satellites was transferred to Japan in 1984 for additional research.

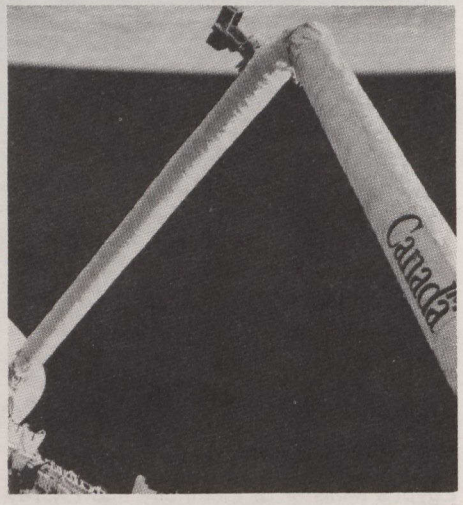
1972: Anik A-1
Anik, the Inuit word meaning brother, is the name given to satellites launched by Telesat Canada, the world's first domestic communications satellite company. Anik A-1 was the first of three identical satellites providing Canada-wide, 24-hour-a-day telecommunications services. It could carry the equivalent of 11 520 one-way telephone circuits, or 12 television programs.

1973: Anik A-2
Anik A-2 was launched to bring network radio, TV and improved telephone services to Canadians living in the North. Both A-1 and A-2 were retired in 1982.

1975: Anik A-3
Telesat accomplished another world first by teaming Anik A-3 with A-2 in the same orbital position to permit the still usable channels on each satellite to be operated as if they were aboard a single spacecraft. Anik A-3 is scheduled to be retired later this year.

1976: Hermes
A research satellite launched in conjunction with the United States, Hermes revolutionized space communications by proving that spacecraft could operate at higher powers and frequencies. In four years of operation, Hermes explored new ways of using satellite technology and paved the way for many commercial services including direct broadcasting to individual homes.

1978: Anik B
Anik B not only replaced the Anik A series as a commercial satellite operating in the lower 6/4 Ghz frequencies, but was also used to continue the promising Hermes experiments using six channels in the higher frequency 14/12 Ghz range. When it was launched, Anik B was the world's first dual-band communications satellite. In 1982 all but a small portion of its capacity was turned over to Telesat for commercial use.



1981: Canadarm launched with *Columbia*
Designed and made in Canada for the US space shuttle, Canadarm, a remote-controlled mechanical arm, has shown its ability to not only pick up, manoeuvre and reposition delicate cargo with ease, but also to allow astronauts to perform satellite rescue and repair missions in space. Canadarm retrieved its first satellite in June 1983, and has since manoeuvred a payload of 4 000 kilograms. Its capacity is 30 000 kilograms. It was developed by the National Research Council with Spar Aerospace Limited of Toronto acting as the prime contractor. The first Canadarm was delivered to NASA in 1981, the second in 1983 and two more were scheduled for delivery in 1984.

1982: Anik D-1
The Anik D-1 and its sister satellite, D-2, to be launched in November 1984, are the biggest satellites with the greatest capacity built by Telesat. They will replace the Anik A and B series and form the base of Canada's domestic satellite communications system until the early 1990s.

1982: Anik C-3
Launched during the first shuttle mission to send satellites into orbit, Anik C-3 can carry the equivalent of 32 colour television signals or 21 504 voice circuits, twice the capacity of an Anik A satellite. The world's first direct broadcast satellite for commercial use, Anik C-3 is more powerful than previous satellites, allowing the use of smaller receiving dish antennas and transmissions to city centres without radio interference.

1983: Anik C-2
Anik C-2 followed Anik C-3 into orbit on the space shuttle. (The satellites are numbered according to when they were built.) The Anik C satellites are already delivering high-quality TV pictures to antennas only 1.2 metres in diameter as well as

providing a wide range of voice, data and facsimile services to Canadian businesses and rural areas across the country.

1983: Canadian astronaut program

Marc Garneau was chosen to be Canada's first astronaut from among the six members of the Canadian astronaut team formed on December 5, 1983. He has had one of the shortest preparation periods of any astronaut.

Born in Quebec City on February 23, 1949, Marc Garneau was educated in Quebec City and London, England. He has been involved with the development of weapon systems since 1974 and, in 1983, was promoted to commander and transferred to Ottawa to become design authority for all naval communications and electronic warfare equipment and systems.

Canada's other astronauts are: Bob Thirsk, 31, a medical doctor born in New Westminster, British Columbia, who was the chief resident in family medicine at Montreal's Queen Elizabeth Hospital; Roberta Bondar, 38, of Sault Ste. Marie who has a medical degree from McMaster University; Steve MacLean, 29, from Ottawa, who received a doctorate in physics in 1983 and was a visiting scholar in laser physics at Stanford University; Ken Money, 49, of Toronto who was senior scientist at the Defence and Civil Institute of Environmental Medicine in Toronto and has worked with

Canada's six astronauts (left to right): *Roberta Bondar, Bob Thirsk, Steve MacLean, Bjarni Tryggvason, Ken Money and Marc Garneau.*

NASA on a variety of experiments on space motion sickness; and Bjarni Tryggvason, 39, born in Iceland, and educated in Canada, has become an aerodynamics expert, who became an associate research officer with the NRC in 1982 and recently completed a study on the winds that affected the *Ocean Ranger*.

In recognition of its close co-operation with NASA in the shuttle program, Canada was invited to select its own astronauts to carry out Canadian experiments in space. Marc Garneau was the first of three Canadians slated to conduct scientific experiments on US space flights. The other two will be selected from among Canada's other five astronauts by NRC.

The policy behind the Canadian space program is to concentrate on programs that offer the maximum economic and social return.

(From Apogee, *Vol. 1, No. 2 1984.)*

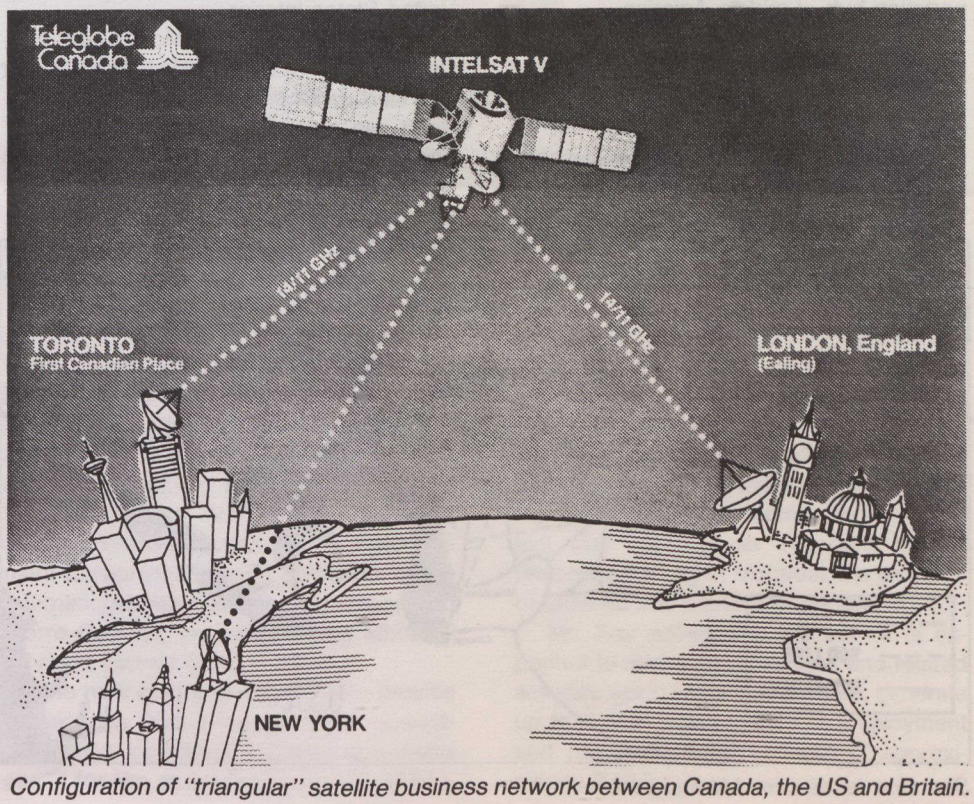
Canada-Britain-US satellite link

Teleglobe Canada has reached agreement in principle with several American international telecommunications carriers to extend its GLOBESAT private satellite business service — now operating between Toronto and London, England — to the United States.

The new agreements, reached in principle with TRT Telecommunications Corporation of Washington, D.C. and ITT World Communications Inc. and International Relay Incorporated, both of New York, would allow multinational corporations to establish private "triangular" intra-corporate communications networks between their operations in Canada, the United States and Britain. The service of the new triangular-type applications is expected to begin in early 1985.

Teleglobe Canada is working to make similar arrangements with other American international telecommunications carriers, as well as additional overseas telecommunications administrations in the near future.

GLOBESAT service uses advanced satellite technology and digital communications in its integrated communications networks.



Configuration of "triangular" satellite business network between Canada, the US and Britain.

Fourth comet discovered by Ottawa engineer

Rolf Meier, an amateur astronomer from Bells Corners, Ontario, has discovered a new comet against the backdrop of stars in the evening sky.

Comet Meier 1984o, as it's now known, is the fourth new comet the Mitel engineer has spotted. He made his first official comet discovery in 1978, followed by two more in 1979 and 1980.

For the past four years, despite hours spent at the Royal Astronomical Society's Indian River observation site near Almonte, Ontario, Mr. Meier hadn't found another.

Using a 40-centimetre telescope owned by the Society, Mr. Meier discovered the nebulous object in the northwest sky near a constellation known as Serpens Caput on September 19.

"It was just a fuzzy object, a little smudge," said his wife Linda.

Comets are made of frozen gases and dirt and resemble a dirty snowball in the sky, sometimes with a tail of the luminous material streaking behind them.

Meier 1984o is relatively faint, less than a tenth the brightness of Halley's comet.

The find has been verified by the Smithsonian Institute in Washington and a confirming telegram has already appeared on the screen of Mr. Meier's home-made computer.

Canadian Pacific Rail extends into United States

Canadian Pacific Limited (CP) of Montreal, through its Soo Line Railroad Company subsidiary based in Minneapolis, is extending its rail network into the heartland of the United States.

The railway's $570-million (US) bid to acquire the bankrupt Milwaukee Road of Chicago was approved by the US Interstate Commerce Commission on October 26.

With the court's favourable decision, the Soo Line extends its trackage of 7 080 kilometres by another 4 990 kilometres including branch lines, giving it access to Kansas City, the rail transportation hub of middle America.

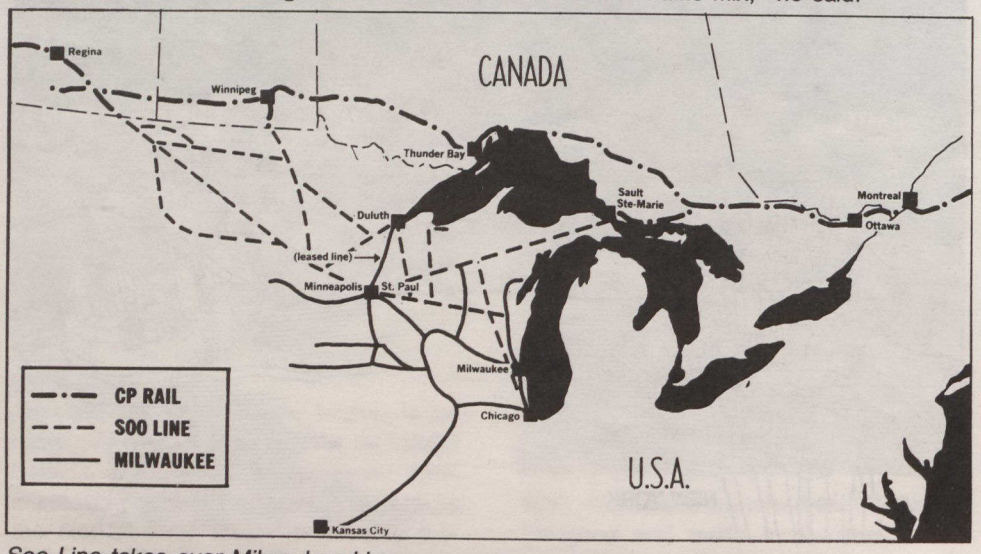
The Kansas City gateway in turn gives it connections with five US railways (to the south and southwest and to the west coast), allowing the Soo Line to break out of the pocket of its operations in northern Michigan, Wisconsin and North Dakota.

The Soo Line has long been CP Railway's main US vehicle for the movement of two-way container traffic between Canada and the United States. It interconnects with CP Rail at Sault Ste. Marie, Ontario, on long-haul container trains that originate in Montreal, Quebec City and Maritime ports.

A major portion of this freight volume is international — containers off ships from Europe en route to US points through Canada and those on the way to Europe through Canadian ports from the United States.

Acquiring the Milwaukee Road permits longer hauls and more single-carrier direct service for such traffic to and from the United States interior.

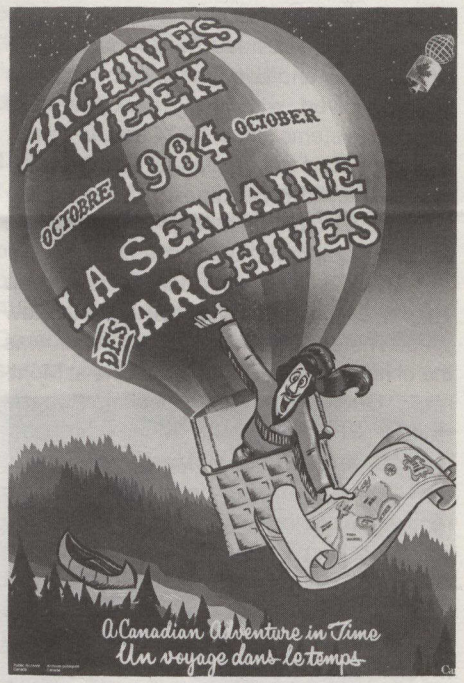
"Carrying CP Rail traffic to and from Canada is a major part of revenue," said a Soo Line spokesman. "With the Milwaukee Road, we are able to keep this traffic on our lines longer and under our (and CP Rail's) control. In addition, it also gives us a better traffic mix," he said.



Soo Line takes over Milwaukee Line.

Open house at Public Archives

As part of the celebrations for international archives weeks, October 12 to 26, the Public Archives of Canada hosted an open house to illustrate not only the collections and services offered by the Archives, but also the work it performs in records management and in the selection, preservation and diffusion of Canada's heritage.



Poster welcoming visitors to open house at the Public Archives.

The open house was designed to take visitors on a "Canadian Adventure in Time". Exquisite, prestigious and rare documents in the display, included photographs, paintings, maps, books, manuscripts, federal records, and films.

In addition, visitors were able to see the Archives at work transforming lights into photographs, restoring works of art and adding centuries to the life of irreplaceable documents. Computers demonstrated the role they play in preserving Canada's heritage.

Exhibitions remain open

Two major exhibitions mounted for the celebration remained open to the public following the open house. *The Painted Past,* closed on October 26, and *A Canadian Adventure in Time,* remains open until January 31, 1985.

International archives weeks was declared by the International Council on Archives, an association formed to foster global co-operation and study in the archival field. The declaration only arises every five years.

News of the arts

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Children's literature prizes

The author of a fantasy based on the early days of the Royal Canadian Mounted Police has won one of the Canada Council's $5 000 prizes for children's literature.

Sean o huigin of Toronto won the Children's Literature Prize, in the English-language category, for *The Ghost Horse of the Mounties.*

The other winner in the English-language section was Laszlo Gal of Toronto for his illustration of the retelling of Hans Christian Andersen's *The Little Mermaid* by Margaret Crawford Maloney.

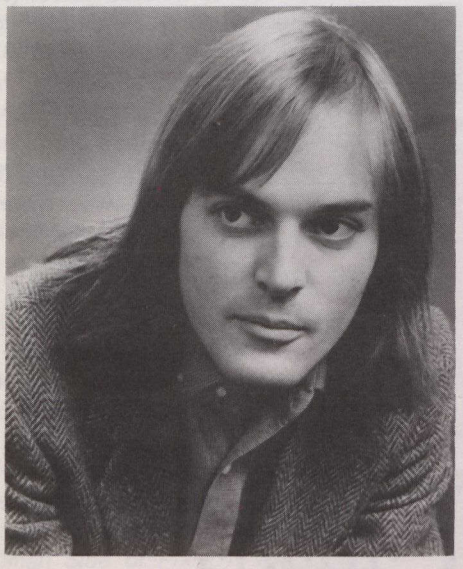
In the French-language division, Denis Côté of Quebec City won for the text of *Hockeyeurs cybernetiques,* a science-fiction fantasy involving robot hockey players, and Philippe Beha of Montreal for the illustration of *Petit Ours* by Sylvie Assathiany and Louise Pelletier.

Pianist wins in Italy

Louis Lortie of Montreal, received first prize and a standing ovation at the Ferruccio Busoni international music competition at the Montverdi Conservatory in Bolzano, Italy on September 6.

Mr. Lortie 25, received a unanimous vote from the jury after he played Beethoven's piano concerto in G-Major opus 58. A student of Dieter Weber and Stanislav Neuhaus of Vienna and Marc Durand of Montreal, Mr. Lortie has given numerous recitals in Canada, the United States and Spain.

Second and third prize went to Matthias Fletzberger of Austria and Bernd Glemser of West Germany. In all, there were 101 pianists in the competition.



Louis Lortie

First Inuit television network in Canadian North

Cameras roll during filming by Canada's first Inuit-language television network.

Magic in the Sky, a documentary film investigating the impact of television on the Inuit people of the Canadian Arctic, has been produced by Investigative Productions and the National Film Board of Canada.

The film tells the story of the spirit and determination of the Inuit Tapirisat of Canada, the Eskimo Brotherhood, to establish Canada's first Inuit-language television network.

The network, called *Inukshuk,* began broadcasting to six Inuit communities in December 1980, utilizing the *Anik B* communications satellite. Since its inception, television has had a dramatic impact on previously isolated Inuit communities.

The documentary follows a small group of young, dedicated TV producers as they work to establish *Inukshuk.* The struggle of the Inuit people to create their own indigenous television network mirrors the crisis of any culture trying to preserve its identity.

International film and television centre in Montreal

A memorandum of understanding establishing an international film and television centre in Montreal was recently signed by the Canadian government and a private consortium of five members.

The consortium, known as La Société de gestion de la Cité internationale du cinéma et de l'audio-visuel de Montréal Incorporated, is headed by Denis Héroux of the International Cinema Corporation. Other members include Serge Losique, chairman and director of the Montreal International Festival, Justine Héroux of Cinévidéo, Stephen Roth, chairman of RSL Entertainment Corporation, Gerald Schneider of the International Film Finance Corporation and Pierre Goyette, president of the Montreal City and District Savings Bank.

The new centre is expected to provide all services from pre-production to post-production, including a 1 500-square-metre studio for film and video productions, keying and special effects equipment, a commercials studio, dubbing and sub-titling, a viewing and entertainment centre and a communications centre.

In addition the Centre will act as an economic and cultural catalyst for film and television production centres in Montreal and other Canadian cities.

Important step

According to former International Trade Minister Francis Fox, the agreement "marks a decisive step in the completion of a project that will play an important role in promoting the city of Montreal, the province of Quebec and Canada in general".

Mr. Fox added that the centre is expected to stimulate production and related activities worth some $200 million, generate up to 4 500 person-years of employment and provide indirect benefits of approximately $400 million.

News briefs

Prime Minister Brian Mulroney has invited the provincial premiers to a federal-provincial meeting on the economy in Ottawa on November 13, only eight days after the new Parliament to set to open. The meeting is to be followed by a national economic summit of business, labour and government, which Mr. Mulroney says he hopes will be held by mid-February. The proposed date means that it is likely to be held after Finance Minister Michael Wilson makes a statement to the House of Commons on the government's proposed economic strategy.

Quebec Premier René Lévesque recently toured Japan, South Korea, China and Hong Kong where he met with trade and industry ministers and business leaders. He headed a mission that included Cabinet minister Bernard Landry, several deputy ministers and ten senior Quebec businessmen. It was the first visit by a Quebec premier to Asia.

Mitel Corp. of Kanata, Ontario has signed agreements with seven US distributors worth a minimum of $100 million (US) over the next 12 months. The agreements represent a 25 per cent increase in sales of Mitel's family of private branch exchanges and related products.

The National Research Council mission insignia is commemorative of the first space flight by a Canadian. The design is based on Leonardo da Vinci's The Proportions of the Human Figure, *the drawing of a man whose outstretched arms touch the perimeter of a square and whose feet, the circumference of a circle. In this case, the central figure and two others, free-floating behind it, denote weightlessness in zero-gravity. The three figures represent the different research areas involved in the experiments Marc Garneau conducted during the mission: space technology, space science and life sciences.*

Church bells that chirp!

What looks like three large church bells and chirps? The answer, according to Betty Robertson (above) *is a SODAR acoustic sounder. Ms. Robertson and Frank Brown were in charge of monitoring the new equipment which belongs to the Atmospheric Environment Service of Environment Canada. It was tested at Perch Lake this summer and the results were compared with the Bendix Frieze Aeronave at Chalk River. Both systems are used to measure wind direction, speed and turbulence.*

Samuel Klein, an Ottawa inventor, has been nominated for the prestigious Ernest C. Manning Award for his development of a biological water purifier. His patented KS-22 process uses bacteria to eat micro-organisms and chemical pollutants in water. Untreated water passes over a perforated stainless steel cylinder, around which the bacterial "sludge" has been smeared. The water then goes through an activated carbon filter, and then it is chlorinated to destroy any remaining contaminants. Manufacturing and marketing rights have been sold to Hovey and Associates, an Ottawa engineering/manufacturing firm.

Shirley Cull Thomson, director of the McCord Museum in Montreal since 1982, will become secretary-general of the Canadian Commission for the United Nations Educational, Scientific and Cultural Organization (UNESCO) in January. She succeeds Claude Lussier, who is retiring. The commission provides liaison between UNESCO based in Paris, and Canadian groups concerned with international co-operation in the fields of the natural and social sciences, communications, heritage, culture, education and related fields. Ms. Thomson was assistant secretary-general of the commission in the 1960s and a director of the UNESCO pavilion at Man and His World in Montreal for two years.

Media Videotex Corp. of Vancouver, has targeted next spring for the start-up of a hospitality videotex service for the city that will allow airline travellers to determine room availability on arrival in the city. The system, involves eight terminals, touch screens and a laser-readable video disc with two-channel sound, graphics, still and motion picture capability. A keyboard on the units will access a data base of Vancouver hotels in colour and the menu will provide information on room availability, rates, dining and details of ground transportation. An eight-terminal system will sell for about $50 000 and advertisers will be able to buy pages for between $1 000 and $3 000 a month. The company is targeting other cities including negotiations for a joint venture with an undisclosed US telephone company to place the hybrid system in three US cities next spring.

Canada Weekly is published by the Cultural and Public Information Bureau, Department of External Affairs, Ottawa K1A 0G2.

Cette publication existe également en français sous le titre Hebdo Canada.

Algunos números de esta publicación aparecen también en español bajo el título Noticiario de Canadá.

Alguns artigos desta publicação são também editados em português sob o título Noticias do Canadá.

Canada

ISSN 0384-2312