

Canada Weekly

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Canada helps map the Third World

Any historical account of Canadian participation in overseas aid involves the science of photogrammetry: obtaining reliable, precise measurements of terrain by photography. Today, this means aerial photography which, by a system of technical procedures, is transformed into maps and charts.

Developing nations need to know the true extent of their natural resources of water, timber and minerals. They also need indications of the type of land-use policies suitable for their national economies. In the 1950s, Canadian external aid was mainly directed to Ceylon, India, Pakistan and Malaysia. Resource mapping was an indispensable part of these projects.

As an industrialized country good at solving its own surveying and mapping problems with photo aircraft, Canada was in a good position to give advice. Moreover, like many Third World nations, Canada is a vast land, with some regions that are hard to reach.

The Canadian International Development Agency (CIDA) early approached experts at

Energy, Mines and Resources' (EMR) Surveys and Mapping Branch about control surveys, mapping and charting on land, water and in the air. A quarter of a century later, the branch can look back to service in 20 nations, five in Asia, nine in Africa and six in the Commonwealth Caribbean.

Special consultants

Under branch directors Dr. S.G. Gamble and R.E. Moore, staff members often acted as special consultants for private firms operating in aid-recipient countries. These men formed an impartial referee agency, monitoring and inspecting the work and maintaining a standard which would reflect favourably on Canadian industry and international reputation.

They also performed a variety of functions for Canadian contractors. For example, they compiled specifications in advance of the type of "surround information" required: style of printed legend, scales and symbols, and spelling of place names. These could be



Doppler satellite surveys in northeastern Nigeria. Energy, Mines and Resources' Surveys and Mapping Branch provides such services in 20 countries throughout the world.

Canada Weekly will not be published during the month of August. The next issue will appear on September 5, 1984.



External Affairs
Canada

Affaires extérieures
Canada

different for each country.

Branch officials also advised about food and water, housing and transportation for Canadian personnel, who had to adjust to local work habits, purchasing procedures and customs clearances.

Typical of some of the conditions under which they worked is this description in a memorandum from a representative in Africa: "There is one main road through the project area and it is unpaved. Roads through smaller villages are not often wide enough to take a Land Rover vehicle.... The only river in the photo mapping area forms the boundary with another country. In the dry season the river has little or no water in it. An attempt will be made to mark the main channel on photographs.

Trails and many of the smaller villages have changed locations to be near a water source. It is quite common for a village to move several miles each year as land becomes less productive and water resources disappear."

Resourcefulness

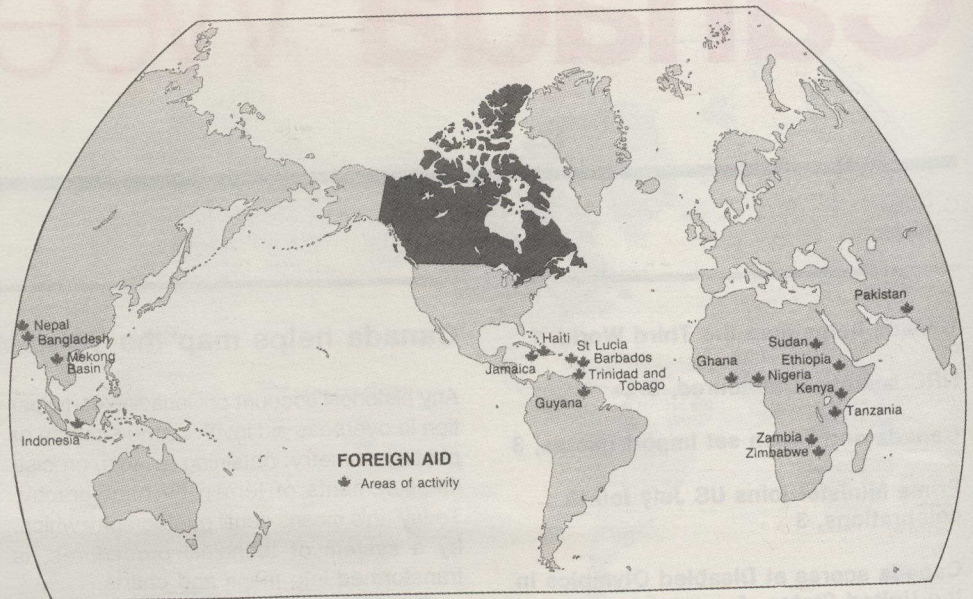
Common to all projects was the resourcefulness of the professionals in meeting and solving formidable difficulties under conditions very strange to them.

In Tanzania, for example, they met an unexpected hazard: war. In the early 1960s Tanganyika (renamed Tanzania in 1964) requested Canada to provide aerial photography, a profile of the land, and photogrammetric compilation. Topographical maps of the area to be covered were to be printed at a scale of 1 : 50 000.

The cost of these services was estimated by Surveys and Mapping experts at \$1 million, spread over five years from 1964 to 1968. The contractor, Spartan Air Services of Ottawa, brought in helicopters and a DC-3 survey aircraft but tensions along the river boundary dividing Tanzania from Portuguese Mozambique were high. The Portuguese were sending fighter aircraft along that boundary and no one could be sure what they might shoot at. They had refused to permit overflights of their territory, which were vital to completion of the photo survey of southern Tanzania. Spartan Air Services went ahead anyway and finished its coverage, fortunately without encounters with fighter aircraft.

Nepalese contract

The infrastructure needed and assumed in Canada often did not in fact exist. In 1977, Nepal awarded an air survey contract to Capital Air Services of Ottawa through CIDA. The firm was to mobilize three



Foreign aid activities by EMR's Surveys and Mapping Branch, 1958-1983.

aircraft to complete aerial photography in three months.

The foreign aid co-ordinator, James I. (Bing) Thompson, who had been to Nepal previously to study the project feasibility, had warned Ottawa authorities.

Weather reporting facilities were virtually non-existent. Even the three aircraft were delayed because they happened to arrive on a religious holiday with no border officials on hand to validate their entry. The air base building was incomplete, with inadequate electrical and water facilities. Canadians had to construct special filtration equipment to enable the project to proceed.

Sometimes the climate was a problem. In March 1962 Canadian Aero Service of Ottawa and Pathfinder Engineering of Vancouver were awarded a contract with Nigeria to map 73 555.66 square kilometres for \$1 300 000. Clear skies are essential for satisfactory aerial photography but in this part of Africa clouds often form in the morning and persist throughout the day. A haze rises when winds carrying fine particles of sand blow off the Sahara.

Challenge met

Engineers of the firm, under direction of Dr. J.M. Zarzycki, now director of Surveys and Mapping Development Division (EMR), met this challenge with two approaches. First, by aerial triangulation a horizon camera determined the tip and tilt of the aerial camera at the moment of exposure. Second, a camera with a special super-wide lens enabled 1 : 40 000 scale photography at 3 538 square meters just below the main belt of haze. A Doppler instrument in the aircraft guided it on a predetermined flight path and

measured distances. In addition special Kodak infrared aerographic film allowed some penetration of the haze, substantially increasing the number of possible days for aerial photography.

Lack of adequate air-conditioned storage for preserving photographic materials was often a problem in tropical climates. In one instance seven large boxes of priceless photo plates were left exposed to heavy rainfall and high humidity. As a result, films were flown to Ottawa for suitable storage even if they were not to be processed there. However, one Asian nation for security reasons refused to authorize the export of aerial film for processing, although they had no suitable photogrammetric equipment of their own.

Benefits to both sides

Whatever the challenges, the benefits from Canada's foreign aid work flow to both donor and recipient nations. Canadian engineers, surveyors, pilots, aircrew and mappers, as well as professors and teachers, have been sent abroad. And many foreign personnel have been brought to Canada for university training and for practical experience.

Third World students have come to Canadian universities for training in surveying and mapping, under the auspices of CIDA and its predecessors. From 1968 to 1972, they were invited to attend summer survey training schools staffed and operated by Surveys and Mapping Branch. Staff members were invited on an exchange basis to developing countries to share their Canadian knowledge and know-how.

Foreign aid work provides Canadian air survey firms with a chance to keep men and

aircraft, usually inactive during the winter, in use the year round. They expand their knowledge and skill, especially in mapping, to meet and overcome new challenges, improving their effectiveness back home. And EMR's Surveys and Mapping Branch, through its inspection and reporting functions for CIDA, has widened its own perspective on the world.

Ottawa files are filled with communications conveying satisfaction with our help in solving surveying and mapping problems in the Third World. Third World government departments refer to the results daily, as Canadian airphotos are used not only for topographical mapping but also for building and improving roads, and building dams and irrigation systems. Forest inventories, mineral and oil exploration, water resource assessment and land use programs all depend on Canadian air surveys.

(Article from GEOS.)

General election called

Prime Minister John Turner has called a federal general election to be held September 4, 1984. Because of the election, the visit to Canada of Queen Elizabeth and the Duke of Edinburgh, previously scheduled for July 14-27, is expected to take place in the fall, following the visit of Pope John Paul in September.

Canada and Japan set import quotas

An understanding between Canada and Japan for the continuation of the orderly development of Japanese motor vehicle exports to Canada until the end of fiscal year 1984-85 was announced recently by the former Minister for International Trade, Gerald Regan.

Mr. Regan said that he had just been informed by the Japanese authorities that the level of Japanese passenger car exports was not expected to exceed 166 000 units in the current fiscal year from April 1, 1984 to March 31, 1985 on the basis of an anticipated total Canadian market of 917 000 passenger car units.

This is the fourth such understanding with Japan. The previous understanding, which terminated on March 31, 1984, provided that passenger car exports would not exceed 202 600 units over 15 months.

Mr. Regan noted that, since the conclusion of the last understanding with Japan, domestic sales of passenger cars had increased by over 18 per cent. As the Canadian market trends were continuing to

improve steadily, there was a real possibility that the Canadian market could substantially expand beyond 917 000 units.

For this reason, the new understanding with Japan includes an agreement to review the situation in early January 1985 when information about the actual level of Canadian passenger car sales for calendar year 1984 becomes available. At that time, if it becomes clear that the Canadian market has substantially expanded beyond the 917 000 unit sales, Japanese car exports could moderately increase further, provided that the over-all level of Japanese exports for fiscal year 1984-85 will not exceed 170 400 units.

The export forecast level for fiscal year 1984-85 will probably result in a Japanese share of the Canadian market of approximately 18 per cent. The minister noted, in this context, that under a similar export arrangement for the same 1984-85 period between Japan and the United States, the Japanese share of the US market was also expected to be about 18 per cent.

Prime Minister joins US July fourth celebrations



Prime Minister John Turner (right) greets a young member of the pipe and drum corps from Illinois as Mrs. Martha Robinson, wife of US Ambassador Paul H. Robinson, looks on. The occasion was the ambassador's annual July 4 party held at his residence in Ottawa.

NRC scientists honoured

Four National Research Council (NRC) scientists have been cited by the US National Aeronautics and Space Administration (NASA) for their work in mapping the electrical currents in space.

Ronald Burrows, Don Wallis, Margaret Wilson and Terry Hughes of the NRC's Herzberg Institute for Astrophysics formally received NASA's Group Achievement Award at a recent ceremony.

The four scientists analyzed data gathered by MAGSAT, a satellite launched in November 1979 to study the Earth's crust and electric currents in the ionosphere and magnetosphere.

NASA said the MAGSAT data helped scientists to provide accurate measurements 20 times better than anything ever done before of the Earth's magnetic field.

Canada scores at Disabled Olympics in the United States

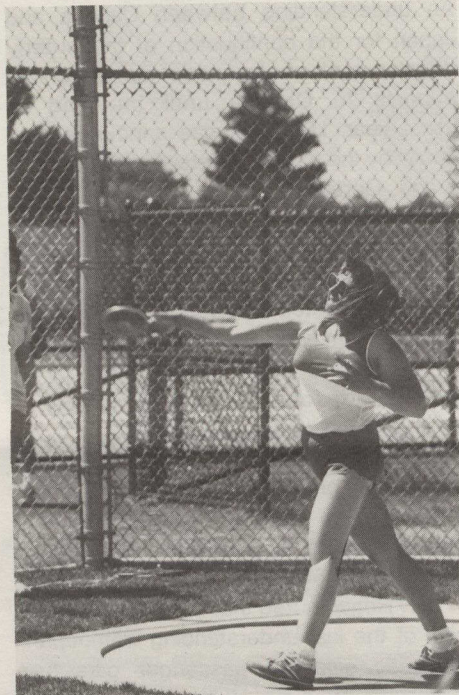
With a medal count of 149 (48 gold, 52 silver, 49 bronze), Canadian athletes finished third in a field of 54 countries at the third International Games for the Physically Disabled, held in Uniondale, New York, from June 17 to 29. Our blind, amputee and cerebral palsy athletes trailed only the United States and Britain in the standings.

The Disabled Games are held every four years, usually in the same country as the able-bodied Olympic Games. The first Disabled Games took place in Toronto in 1976; in 1980 they were held in Arnhem, Holland, because of some difficulty of staging them in the USSR.

Ordinarily they include wheelchair, blind, amputee, and cerebral palsy athletes. This year, however, the wheelchair games are being held separately in Stoke-Mandeville, England, where disabled sport was born as a form of rehabilitative therapy during the Second World War.

Disabled athletes generally practise sports similar to those enjoyed by able-bodied athletes. In some sports, particularly shooting and archery, they compete in world-class able-bodied events as well.

Competitors are divided into classes by the degree of disability (level of paralysis or amputation, degree of blindness, etc.), and the rules of the sport are modified accordingly, but never more than necessary. In blind track events, for example, the totally blind runners in the short (100-metre) events run toward a caller who modifies his chant to tell the runner if he is straying out of his proper lane. In longer distance events, the athlete is tied by the wrist or elbow to a



Stefania Balta of Toronto, gold medallist in amputee shot put and discus.

sighted guide runner, who must himself be a good athlete.

Standards of performance in disabled sport are improving each year, and Canadian athletes at Uniondale met tougher competition than they did four years ago, when our blind and amputee athletes placed first in their categories at Arnhem. Nonetheless, Stefania Balta of Toronto was able to keep her gold medals in amputee shot put and discus, ahead of Australian and American rivals.



Goalball, played by blind athletes, is a game in which teams, three-a-side, are guided only by the sound of a bell inside a medicine ball. The Canadian women's team won a silver medal.

Goalball

Some of the events are designed specifically around the disability of the athletes that participate in them. Goalball, played by blind athletes, is a game of tactic and reflex, played in total silence in a space the size of a volleyball court. Soccer nets stretch across the width of the court and the players, three-a-side, are spaced across the net with a neutral zone between the two sides. All are blindfolded to remove any vestige of sight. At the whistle, the server drives a heavy medicine ball across the court — it must never leave the floor and the defenders must stop it any way they can, guided only by the sound of a bell inside the ball. The Canadian women's team, won a silver medal in this sport, losing in the final match to the world champion American team.

A significant new element was added to these Games when it was announced that, for the first time, disabled events would be featured as a demonstration sport at the Los Angeles Olympics from July 28 to August 12, 1984. Among the wheelchair racers who qualified for this ground-breaking event were five Canadians — Rick Hansen of Vancouver, Andre Viger of Windsor, Mel Fitzgerald of St. John's, Angela Ieriti of Toronto, and Debbie Kostelyk of Edmonton.

Following the Los Angeles Games, Rick Hansen will begin to work on his next project — a round-the-world wheelchair expedition to publicize Vancouver's Expo 86.

Videotex system for education

A computer-assisted system for education on Telidon (CASE-T), developed by the University of Guelph and Tayson Information Technology Inc. of Toronto, was announced recently. CASE-T enables teachers and trainers to develop their own online instructional or information system on terminals in their own offices. Graphics, written information and branching logical paths are possible; students may access the packages created by their instructors from any terminal or microcomputer with a NAPLPS decoder.

Features of CASE-T include record-keeping and provision for electronic mail so that students can communicate with their instructors. An instructor can design a test that selects questions drawn randomly from a master list. The package is capable of handling as many as 50 local users, although it would normally be used by about 20 teachers and a manager to supervise organization of individual data bases created by instructors or users of the system.

Improved bomb sniffer

Scintrex Ltd. of Toronto smells the scent of higher profit this fiscal year as a result of production of a new bomb sniffer and additional applications of the technology now on the drawing board.

The company's annual meeting was highlighted by the first public demonstration of the EVD-1 explosives vapour detector, developed by the National Research Council for the federal Department of Transport. Scintrex has world rights to the device and will begin marketing it to military and civilian security forces this September, company president Harold Seigel said.

The Transport Department has placed an initial order for 40 sniffers, which will sell for between \$15 000 to \$20 000 each. "We'll be coming in at a higher price than other devices because of the greater

sensitivity of the EVD-1," Mr. Seigel said.

The sniffer is essentially a portable gas chromatograph that can detect trace amounts of certain gases given off by explosives. A small battery-operated wand-like device containing a glass ampule that collects an air sample is removed from the machine.

The ampule is then placed in the analyzer, which is the size of a small suitcase, and a digital reading of the sample is given in two minutes. The device detects trace amounts to a sensitivity of a few parts a trillion, compared with existing devices that give readings down to several parts a billion.

Mr. Seigel also said Scintrex was developing new versions of the sniffer for other uses.

An undisclosed federal government department wants a version to sniff out illegal stills. Scintrex simply has to make a different ampule and reprogram the device's micro-processor to enable it to "sniff" ethanol alcohol, which is given off during distillation.

National R and D centre

To meet the challenge of economic realities by improving the skills of Canadian managers in the world marketplace, a new \$12-million National Centre for Management Research and Development is to be established at the University of Western Ontario (UWO).

Dr. George Connell, UWO president, in Ottawa to participate in the announcement of federal government aid for the project, said that the university was enthusiastic about the opportunity to co-operate with the government of Canada and the business community in a new enterprise "dedicated to research in an area critical to the nation's future".

The new facility, which will come under the auspices of UWO's School of Business Administration, will be established with the assistance of a \$4.2-million contribution from the federal Industrial and Regional Development Program. The university will invest \$3 million and will raise the remainder from the private sector.

Industry Minister Ed Lumley said that the centre would study ways of improving entrepreneurship, productivity and methods of conducting international business, with the aim of developing "world class" management talent for Canadian industry. Specifically, the centre will investigate how such functions as marketing, operations management, information and control systems, financing, human resources management, and business-government relations can contribute to improvements in Canada's performance in these key areas.

Drug detector

The machine could also be used to detect drugs. And the military wants a version that can sniff explosive fuel vapours that leak from torpedoes.

Scintrex has resolved the "outstanding impediments" it had in delivering its MK-22 explosive ordnance detectors to the US Navy and shipments this year will translate into higher revenue.



Action Photographies

Harold Seigel, president of Scintrex demonstrates new bomb-sniffing equipment.

The company has also strengthened its defence marketing by appointing a former military attaché to Peking as director of defence sales.

Further contributions to the company's profit will come from sales of its exploration equipment, including an \$800 000 order to India. Diversification will more than make up for the decline in shipments of its nuclear power monitoring instruments.

Expo 86 logo flies far and wide



CP Air, the official carrier for Vancouver's 1986 World Exposition, recently launched the EXPO 86 Empress of Canada — the first of four 747, EXPO 86 carriers. Within the next few months, the EXPO 86 logo also will appear on the Empress of B.C., the Empress of Vancouver and the Empress of Expo, all CP Air carriers. The planes will fly to EXPO 86's major markets of the United States, Hong Kong, Australia and Europe.

Detection of muscular dystrophy cause

An important step forward in the search for a gene that causes the most common and severe form of muscular dystrophy has been made at the Hospital for Sick Children in Toronto.

Researchers have found a way to zero in on the gene, which so far has defied detection despite intense efforts by scientists in many parts of the world. The discovery may provide a better way to determine whether some women who risk having children with the disabling condition are carriers of Duchenne muscular dystrophy, Dr. Ronald Worton of the hospital's department of medical genetics said. It may also help detect muscular dystrophy in a fetus.

Over the past two years, Dr. Worton

and co-worker Catherine Duff conducted the laboratory studies that led to the findings. He says interest in their research has been so great among genetic scientists that "it's been like working in a goldfish bowl, so many people have dropped in to see how we're doing".

It is not known how the gene causes muscular dystrophy, but Dr. Worton says it is believed the gene instructs a cell how to make a muscle protein. If the gene is not working, that protein is lacking and muscles weaken and shrivel.

The debilitating disease, which causes sufferers to fall frequently and have difficulty standing and climbing stairs, typically affects boys and often leads to early death.

Sale to China

Northern Telecom International Limited has been awarded a contract for the supply of an SL-1 VLE (very large enhanced) digital private branch exchange (PBX) for the Garden Hotel in Guangzhou, People's Republic of China. The contract is worth approximately \$1 million (Can.).

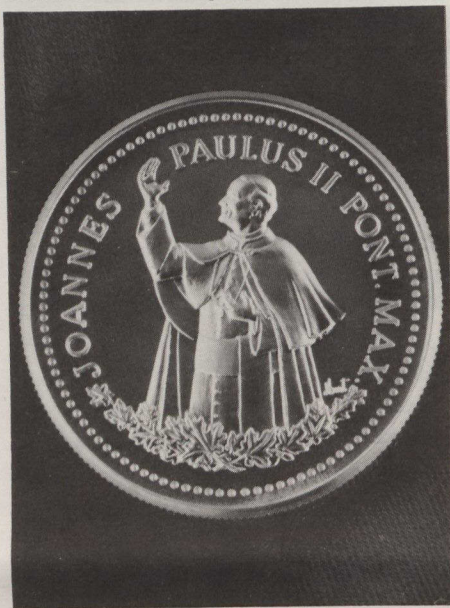
The Garden Hotel, scheduled to open partially in mid-1984 in eastern Guangzhou, formerly Canton, in southern China, is a joint investment of Lee Garden Hotel in Hong Kong and the Chinese government. It comprises a hotel and an office block with a total of 2 500 extensions, all of which will be served by the fully digital SL-1.

This is the third SL-1 sold to China to provide communications for hotels. The others were to the Bai Yuen Hotel, also Guangzhou, and the Beijing Hotel in Beijing, formerly Peking.

The SL-1 is the largest selling digital PBX in the world. More than 9 200 systems, serving an equivalent of more than three million lines, have been sold in 42 countries since it was introduced in 1975.

The SL-1VLE is being manufactured at the Northern Telecom plant in Belleville, Ontario.

Medal marks papal visit to Canada



The official medal commemorating Pope John Paul's visit to Canada is now on sale.

The medal, heavily plated in 23-karat gold, was created, minted and marketed by International Gold Marketing (Canada) Ltd., an Ottawa-based firm that trades in precious metals.

One of the first of the medals, which come in a velvet-lined leather case, was presented to Pope John Paul at a ceremony in Rome on May 19.

The medal, the only one authorized by the Canadian Conference of Catholic Bishops for the papal visit, costs \$36 until August 15 and \$45 from August 15 until September 30.

Dora de Pédery-Hunt, sculptor of Canada's first \$100 gold coin, was hired to



design the medal and it was minted by Lombardo Mint Inc. of Sherbrooke, Quebec.

On one side is a sculpted profile of the Pope, his right arm raised in greeting.

On the reverse side is the coat of arms of Pope John Paul as well as three doves as symbols of peace.

The first 100 000 coins have been minted and are now on sale in the US and Ireland, as well as Canada.

They can be obtained by sending name and return address, with cheque, money order or charge card number, to I.G.M. International Gold Marketing (Canada) Ltd., P.O. Box 8399, Alta Vista Terminal, Ottawa, Ontario, K1G 3H8. US - I.G.M. (Canada) Ltd. mailing, shipping centre, 78 Church St., Saratoga Springs, New York, 12866.

New Canadian air routes circle the globe

Using a combination of Air Canada and CP Air flights, some enterprising traveller may lay claim next year to being the first person to circle the world exclusively on Canadian scheduled air carriers, according to *The Globe and Mail*.

He or she will have the choice of travelling east or west. By starting in Montreal, the traveller will be able to fly to London, Frankfurt, Bombay and Singapore on Air Canada, and at that point be almost exactly half way around the world.

He or she can then pick up a CP Air flight in Singapore and touch down in Hong Kong and Tokyo before returning to Canada over the Pacific and landing back in Montreal.

The flight will probably take the best part of two days.

The last links in the chain will begin to fall into place next January when Air Canada launches service to Bombay and Singapore through London.

It will be completed later in the year when CP Air adds Singapore to its Tokyo-Hong Kong service, subject to agreement being reached with Japan and Hong Kong.

National Gallery exhibits contemporary art

A major retrospective of contemporary art, *Reflections: Contemporary Art at the National Gallery of Canada since 1964* opened recently in Ottawa's National Gallery of Canada. More than 130 works of art in all media produced by Canadian and foreign artists during the past 20 years will occupy the first, fourth and fifth floors of the gallery.

The large summer exhibition highlights many of the most important contemporary works of art owned by the gallery and presents them in a free-flowing installation that emphasizes themes, styles, materials, formats and content.

"*Reflections* offers a broad overview of the contemporary collection," states Diana Nemiroff, assistant curator of Contemporary Art and organizer of the four-month exhibition. "It is a unique occasion for the public to see the extent of this important collection and also to reflect on the extremely diverse nature of the art production of the past 20 years."

Ms. Nemiroff has selected 42 sculptures and installations, 44 paintings and 48 works on paper to illustrate the complex evolution of recent art trends. Programs of videotapes and experimental films by artists, presented during the course of the exhibition, will also reflect the interest of contemporary artists in new media.

The retrospective begins with a select display of sculptures and works on paper by American Pop artists, including Roy Lichtenstein, Andy Warhol and James Rosenquist. The movement towards radically

simple form in American sculpture of the Sixties, which culminated in Minimal art, may be seen in a number of works by important representatives of the movement, such as Dan Flavin, Donald Judd, Carl Andre and Robert Morris.

The present survey indicates Canadian artists' awareness of international trends, while confirming the original and independent character of their production. Works by Canadian artists such as Guido Molinari and Charles Gagnon, show a fluency of expression in the international idiom of abstract painting, while the N.E. Thing Co. and Michael Snow, the latter internationally known for his experimental films, are represented by works that made a significant contribution to the movement called Conceptual art.

At the same time, as the exhibition demonstrates, the local, regional environment has continued to be a major source of inspiration for a large number of artists whose work has a distinct, personal and difficult to classify character.

According to Diana Nemiroff, "it is the diversity that makes this period such a fascinating one. An explosion of art categories has occurred in the past 20 years. The exhibition reflects the challenge that current art production poses for the National Gallery. The collection should mirror the dynamism and permutations of today's art, while attempting to classify this creative force within the more static parameters of art history and research".

Canadian folk painter featured

The most untainted view of Canada may not be in the work of professional painters, but in what has been called a 'people's art', reflecting the lifestyle, concerns and values of a society. *Francis Silver 1841-1920*, an exhibition of 33 paintings and murals opened recently at Toronto's Art Gallery of Ontario.

Silver's work, a direct response to the social, political, and economic issues particular to his times and the region, is characterized by spontaneity, simplicity, rough draughtsmanship and uncommon colour.

Francis Silver was born Francis da Silva in Portugal in 1841. He landed in Nova Scotia as a teenager, probably as a crew member of a saltfish vessel. He worked as a sailor, gardener, carpenter and coachman, and despite a lack of artistic training, he undertook the painting of murals on carriage houses and basement walls. Soon he was exploring political, religious and social themes through art.

Political issues such as the fisheries dispute in the 1870s and reciprocity with the United States, biblical themes, and local scenes — ships at sea or in the yards — formed Silver's artistic repertoire. His Portuguese roots are in evidence in such details as patterned borders on wood panels.

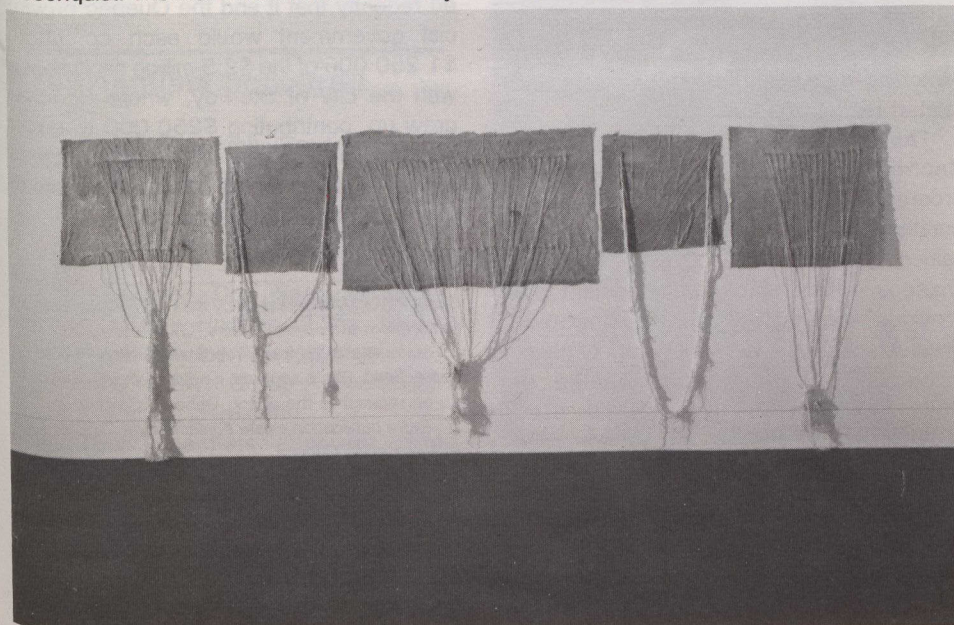
Computers featured at Ontario Science Centre

"The Artist as a Young Machine" is the theme of a new exhibit at the Ontario Science Centre in Toronto.

The show, which runs until October, will explore the relationship between the arts and the computer, offering visitors the opportunity to personally experiment with state-of-the-art machinery.

Its resources include more than 50 computers ranging from micro systems developed by the Science Centre itself and machines made by well-known manufacturers such as Apple, Digital Equipment, Atari and Commodore to mainframes used for sophisticated computer animation.

The hands-on features include touch-draw techniques to create art on a computer screen. Also included are computer paintings using palettes with 16.8 million colour possibilities, and changing the video image of your own face by using the computer's digitizing features.



National Gallery of Canada

For David, sculpture of rubberized wadding and cotton string, by Canadian artist, An Whitlock.

News briefs

The third Montreal International Trade Fair will be held at the Palais des Congrès September 12 and 13, 1984. The fair, sponsored by the Montreal Board of Trade, will feature exhibits from some 30 countries including Denmark, Germany, the United States, Brazil and Austria.

A fellowship in human rights research named after the late chief justice Bora Laskin of the Supreme Court of Canada has been established. The Bora Laskin National Fellowship in Human Rights Research will be awarded annually, beginning in the 1985-86 academic year. The one-year fellowship will allow research on themes and issues relevant to human rights issues in Canada. One purpose is to develop expertise in human rights involving the arts, humanities, social sciences, journalism and law.

Former External Affairs information officer Mairuth Sarsfield and lawyer Johanne Lafrance-Cardinal have been appointed to the board of directors of the Canadian Broadcasting Corporation (CBC). Mairuth Sarsfield of Ottawa, was senior information officer and deputy to the director of information of the United Nations Environment Program in Nairobi, Kenya. After joining the Department of External Affairs in 1971, she undertook a number of foreign assignments before accepting her recent UN post. Johanne Lafrance-Cardinal was called to the Ontario bar in 1980 and currently practises law in Cornwall.

An artificial intelligence computer has been introduced by Xerox Canada Inc. of Toronto. The Xerox 1108, one of the 1 100 series of scientific information processors, is an advanced version of the Xerox Star. It uses Interlist-D software, a Xerox-designed variation of the LISP-B programs.

The University of Guelph and IBM Canada Ltd. of Markham, Ontario, have signed a co-operative agreement to create and integrate agricultural information systems. Computers donated to the university by IBM Canada will be used in the classroom and for research.

The Export Development Corporation (EDC) has announced the signing of a \$68.0-million (US) financing agreement with the Republic of Turkey to support a sale to Turkey by Northern Telecom International Limited of Mississauga, Ontario. The sale covers the first phase of a \$320-million (Cdn.) five-year contract concluded last year between Northern Telecom and the General Directorate Post, Telegraph and Telephone Administration of Turkey, the fifth major

Canadian pedals to victory



Canapress

Canada's Kelly-Ann Way raises her arm as she reaches the finish line, winning the 70-kilometre, eighth stage of the Tour de France women's cycling rally in Pau, France. Miss Way, 19, of Windsor, Ontario, completed the distance in one hour 52 minutes and 39 seconds to halt a string of seven consecutive stage victories by riders from the Netherlands. Hilary Matte of Toronto placed fourth behind Miss Way to help move the Canadian squad into third place over-all in the five-country, six-team competition.

telecommunications equipment supply contract concluded between them during the past 16 years. It involved the supply of digital switching equipment, telephone sets and related technical services.

The US Defense Construction Supply Centre, Columbus, Ohio (DCSC) has ordered through Canadian Commercial Corporation (CCC) an additional 23 road graders valued at \$1 232 875 00 (US). This purchase is in the form of an amendment to a previous contract awarded to Champion Road Machinery Ltd., Goderich, Ontario, through CCC for graders valued at \$827 212 (US). The graders will be used at various US military bases for road construction and snow removal. This contract brings Champion's business volume through CCC, from April 1963 to date, to approximately \$3 million.

Canadian Commercial Corporation (CCC) has awarded contracts totalling \$630 000 to Comeau Sea Foods Limited,

Saulnierville, Nova Scotia, and Fishery Products Ltd., St. John's, Newfoundland, for the supply of 600 tonnes of fish to Fischimpex of Rostock, German Democratic Republic (GDR). The contract, signed between the GDR and the CCC, is the second in the past eight months.

Bingham Willamette of Burnaby, British Columbia, has been awarded a contract worth \$31 million to supply primary heat transport pumps and shut down cooling pumps to the Cernavoda nuclear power facility in Romania. The Export Development Corporation is financing this sale under a \$680 million (US) loan granted to the Romanian Bank for Foreign Trade covering the sale of two CANDU nuclear power stations by Atomic Energy of Canada Ltd.

Luke Rombout, former director of the Vancouver Art Gallery, has been named chief consultant to Expo 86's fine arts program. A major international exhibit is planned to feature world-renowned paintings, sculptures and photographs in a 1 800-square-metre gallery on the Expo site in Vancouver.

Northern Telecom Ltd. of Mississauga, Ont., announced recently that its subsidiary Northern Telecom Data Systems and Nokia OY. of Finland will co-operate in supplying data processing and office system terminals throughout Europe. Northern Telecom Data Systems is a unit of Northern Telecom PLC, Nortel's British subsidiary.

Canada's first permanent, world class speedskating oval is to be built in Ste-Foy, Quebec, to honour Olympic champion Gaetan Boucher, who won two gold medals and a bronze at the Sarajevo Winter Olympics. The federal government announced recently that it and the Quebec provincial government would each contribute \$1 250 000 of the \$2.5-million capital cost, with the city of Ste-Foy, where Boucher grew up, contributing \$250 000 to cover the land, landscaping and professional fees as well as taking on the operational costs of the 400-metre artificial track.

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