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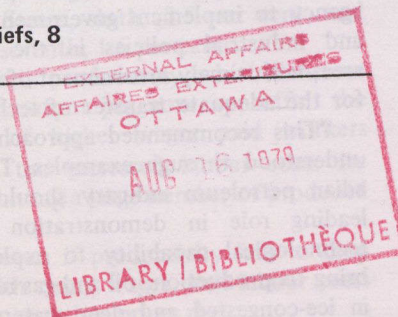
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### Ten years ago today...

The Official Languages Act was passed by Parliament declaring English and French to be the official languages in Canada and providing for services to the public in both languages.

## Science Council of Canada outlines programs for energy self-sufficiency

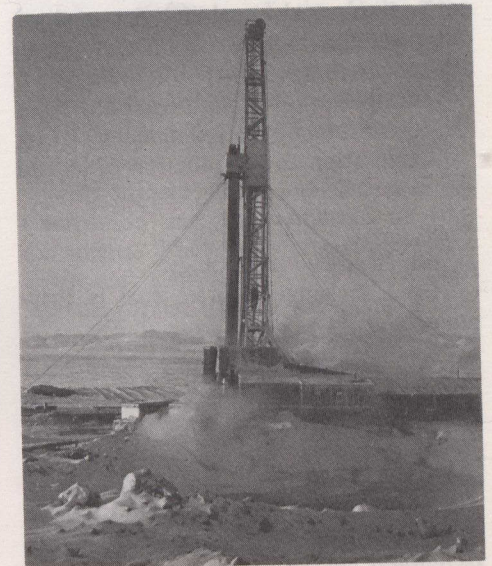
*Canada must rapidly develop its energy options to reduce expenditures for continually increasing costs for imported oil and to meet long-term energy requirements with self-sufficiency as its goal.*

*The key to new energy resources lies in "research, development and demonstration" with the emphasis on an organized strategic technological demonstration program, says the Science Council of Canada in its recently published report, Roads to Energy, Self Reliance — The Necessary National Demonstrations. It recommends that the Government and industry embark on 11 specific demonstration programs, which would cost \$3.8 billion over the next 30 years. The following are highlights from the Council's report.*

Oil remains the dominant energy factor, says the report. "In spite of serious concerns with respect to an assured supply of oil in terms of political pressure or war, Canada can still expect the supply of crude oil and natural gas to remain in reasonable balance with requirements, for the next few decades," says the study.

In the meanwhile a new energy era is beginning and initiatives must be taken to "improve the security of the oil supply" consistent with federal and provincial political realities, says the report. To accomplish this Canada must: diversify foreign sources of supply; consider geographic proximity and international transportation factors; permit strategic storage of energy and contribute to the development and control of pipelines, tankers and deep-water harbours.

Because of the relatively high cost of domestic energy alternatives to oil, the report predicts that within a short period of time Canada will "import foreign crude no matter how expensive". The Government at present is encouraging energy conservation and the Council stresses that all systems must function at maximum efficiency in order to reduce energy losses. Conservation will also be a "stabilizing factor to cushion the deteriorating balance-of-payments situation and to buy the time required for establishing domestic energy-delivery systems," according to the study.



Drilling for oil in the Yukon Territories.

The Council advises that Canada must immediately substitute imported oil, with "domestic oil, natural gas, coal, wood and other forms of energy....This will require local and long-distance delivery systems". The study notes that "as an industrial country with an ample supply of natural resources and a small population, Canada stands a better chance than most of becoming self-reliant".

### Planning Energy Use

"...Canada's future energy systems will be shaped as much by political and social concerns as by technical and economic

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considerations," the study predicts. Federal and provincial governments, industrial and financial organizations and academic institutions must co-ordinate and define the roles they will play in planning Canada's energy supplies for the years ahead, according to the Council.

The pivotal energy transition period will begin around 1990, says the study, with "a significant supply and use of heavy oils, oil sands, coal and nuclear energy. Conventional crude oil and natural gas will increasingly be allocated to critical and special uses. Early in the next century, Canada can expect substantial supplies, in aggregate, of liquid and gaseous hydrocarbons from coal, as well as energy from biomass and solar radiation. Emphasis must be placed on programs that will facilitate the necessary technical and economic transitions".

The Council recommends the following technical demonstration programs:

#### *Fossil fuels*

##### *Oil and gas*

- Technological capability for exploration and production of oil and gas in ice-congested waters.
- Transportation of hydrocarbons from the high Arctic by marine mode.
- Exploration and production of oil and gas in very deep waters.

##### *Coal*

- Fluidized-bed technology.
- Land reclamation after coal is strip-mined.

##### *Nuclear energy*

- Irradiated fuel management and disposal systems.
- Feasibility of the thorium cycle - inclusive of economic and systems aspects.

##### *Renewable energy*

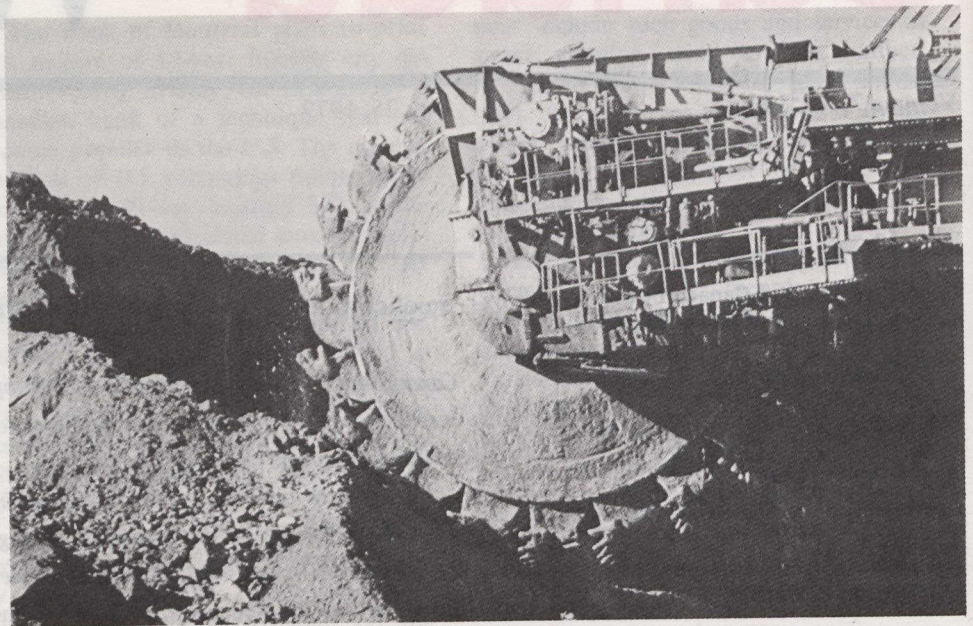
- Generation of gaseous and liquid fuels from forest and agricultural residues - with an assessment of economic and commercial factors related to biomass energy technology.
- Solar water and space heating systems.
- Energy generation from solid wastes.

##### *Conversion technologies*

- Co-generation of electricity and heat - inclusive of economic and management aspects.

#### **Long-term policies and priorities**

Based on these concepts and on the relative magnitude of potential future



*A bucketwheel capable of scooping up over 50,000 tons of oil sand a day.*

contributions, says the report, "it would seem pertinent to recommend a tentative or preferred "shopping list" of sources or technologies". Energy sources and technologies that must receive appropriate attention, in order to have the required long-term impacts, can be ranked in decreasing order of priority:

- Nuclear fission: more efficient use of fuel resources
- Oil sands: *in situ* enhanced recovery processes
- Effective utilization of conversion energy in planned situations such as industrial parks
- Solar water and space heating
- Efficient energy use: new industrial processes
- Efficient energy use: continued commercial and residential building improvements
- Coal: conversion to liquid and gaseous fuels
- Energy storage: all systems
- Energy from biomass and solid wastes
- Efficient and advanced energy conversion
- Transportation efficiency
- Portable fuels: such as new hydrogen systems
- Consumer products: optimized materials and recycling
- Oil sands: new mining technologies

#### **Funding and management**

With regards to funding and management of research, development and demonstration, the report states:

"...Fossil fuels have historically been developed by the private sector in Canada. Recognizing this, the designated private firm (or the public-private consortium) is likely to be the chosen instrument for demonstration programs and the principal source of funds. In the nuclear energy field, the Crown corporation, Atomic Energy of Canada Limited (AECL) is obviously the most appropriate institution...."

"When an industry or a business firm is identified or designated as the chosen instrument for implementation of an energy policy, the onus is on government to play an enabling role through provision of financial support, the setting of an appropriate regulatory framework, and the use of ancillary government agencies to support and monitor the activity. When a government agency receives the mandate, however, the onus is on that agency to implement government energy and industrial policies in the relevant area, with timely involvement of industry for the adequate transfer of technology.

"This recommended approach is best understood through examples. The Canadian petroleum industry should play a leading role in demonstration of the technological capability to explore and bring to production, oil and gas resources in ice-congested and deep waters. Since the offshore and northern regions fall within federal jurisdiction, the federal government must design and enforce direction-setting regulations and encour-

*(Continued on P. 8)*

## Prime Minister travels to Africa for Commonwealth meeting

Prime Minister Clark will visit four African nations from July 28 to August 11, but the focal point of the trip will be his attendance at the Commonwealth Heads of Government meeting in Lusaka, Zambia.

The Prime Minister will visit Cameroon to discuss a wide range of bilateral and international issues with President Ahmadou Abidjo and will also visit Canadian aid projects and meet Canadians living in the country, July 28 to July 31.

Mr. Clark will attend the Commonwealth Heads of Government meeting being held August 1 to August 8. Queen Elizabeth II plans to attend the conference along with heads of government from the 40 Commonwealth countries around the world. These meetings, which take place every two years, allow heads of government to consult on major international political and economic issues and review programs of Commonwealth co-operation. The situation in Southern

Africa and economic relations between developed and developing countries are expected to be the main issues of discussion. While in Lusaka, the Prime Minister will also discuss bilateral relations between Canada and Zambia with President Kaunda.

Following the Lusaka meeting, Prime Minister Clark will travel to Tanzania on August 9 and 10 and will visit Kenya on August 11. While in Dar-es-Salaam and Nairobi, Mr. Clark will meet with Presidents Nyerere and Moi, visit educational and agricultural aid projects and meet Canadians in these countries. On his return trip home, Mr. Clark will meet with Canadian troops in Lahr, Germany.

The Prime Minister will be accompanied by his wife Maureen McTeer, the Secretary of State for External Affairs Flora MacDonald, the Minister of State for CIDA Martial Asselin, Member of Parliament Douglas Roche, and representatives of federal departments.

## Canada gains in productivity

Canada ranked third among the world's seven leading industrial countries in manufacturing productivity gains registered during 1978, according to the U.S. Labour Department.

The productivity of workers in Canadian manufacturing, a key factor affecting inflation, rose 4.2 per cent.

By contrast, productivity by Japanese workers rose 8.3 per cent last year, highest among the seven industrialized countries. France was second, with a 4.9 per cent gain; West Germany, fourth, 3.7 per cent; Italy, fifth 2.9 per cent; the United States, sixth, 2.5 per cent, and Britain, seventh, 1.6 per cent.

A rise in productivity, which measures units of output per hour, can offset the impact of higher wages paid workers because the increased labour costs are spread among a large number of produced goods.

However, if productivity fails to keep pace with rising wages, unit labour costs increase, and thus prices rise.

The U.S. Labour Department said hourly compensation for manufacturing industries in Japan rose by 6.3 per cent last year, less than in any of the other seven countries.

Hourly compensation rose by a high of 16.9 per cent in Britain. Italy was second, with compensation up 13.9 per cent, followed by France, 13 per cent; the United States, 9.5 per cent; West Germany, 7.2 per cent; and Canada, 7 per cent.

Unit labour costs in Britain were up 15.1 per cent; followed by Italy, 10.6 per cent; France, 7.7 per cent; the United States, 6.9 per cent; West Germany, 3.4 per cent; and Canada, 2.7 per cent. In Japan, unit labour costs declined by 1.8 per cent.

## Governor-General visits western provinces

Governor-General Edward Schreyer is travelling extensively across Canada this summer.

Mr. Schreyer and his family began a week-long private visit to their home province of Manitoba on July 5. A week later the vice-regal family moved into three private rail cars, used by visiting heads of state at Expo 67.

They continued on to Calgary and Edmonton on July 19 where Mr. Schreyer met with native leaders to discuss the status of early treaties. The Governor-

General, at present, is taking his usual canoeing holiday visiting northern Alberta, Saskatchewan and Manitoba, and will return July 30.

In early August the Schreyers will visit some of Manitoba's ethnic festivals including an Icelandic celebration in Gimli and a Ukrainian one in Dauphin. A picnic in the Manitoba town of St. Lazare is also planned, as well as visits to the Selkirk Fair and Thompson's Nickel Days Celebration.

The northern Ontario town of Kenora is also slated for a vice regal visit.

## Order of Canada appointees named

Retired hockey star, Bobby Orr, broadcaster, Gordon Sinclair and National Ballet principal dancer Frank Augustyn were among 62 Canadians recently named to the Order of Canada by the Governor General.

They along with 16 others were selected as Officers of the Order, the second of three classes of appointment. Thirty-nine others were made Members of the Order, which was created in 1967 to recognize achievement in various fields of endeavour.

The highest degree of the order is Companion and was conferred on four Canadians. They are retired Supreme Court of Canada judge Wishart Flett Spence, former Quebec vice-premier Paul Gerin-Lajoie, the Most Rev. Georges-Henri Levesque, former president of the National University of Rwanda, and University of Toronto professor John Polanyi.

Also included in the list of Officers were: the Most Rev. Maurice Baudoux, former archbishop of St. Boniface, Manitoba; Sylvain Cloutier, deputy-minister of Transport Canada; Vianney Decarie, University of Montreal professor and president of the Canadian Commission for UNESCO; Jacques de Tonnancour, artist; Monique Mercure, actress; Joseph Morris, former president of the Canadian Labour Congress and Dr. Ian Sinclair, chairman and chief executive officer of Canadian Pacific Limited.

Among those appointed Members of the Order were: Dr. Alexander Brott, founder-conductor of McGill's Chamber Orchestra; Art Dixon, former speaker of the Alberta Legislature; Louise Drouin-Savard, Court of Canadian Citizenship judge and Claire Haddad, fashion designer.

## CIDA joins children's exhibit

The Canadian International Development Agency (CIDA) recently announced its participation in a children's exhibition at Man and His World in Montreal.

"In this International Year of the Child, CIDA wanted to draw attention to its concern for the rights of the child and highlight the aid programs designed specifically for children in developing countries," said Minister of State for CIDA, Martial Asselin.

During the summer, the "Children of the World" pavilion will present an exhibit on the rights of the child and show for the first time a film entitled *Children*. Three other films, *Water - The Hazardous Necessity*, *Development Without Tears*, and *Exploding Cities*, in addition to slide shows on CIDA's international role and photographs of the world's children, will also be presented.

The project, carried out in co-operation with the Director-General of the Exploration pavilion and the United Nations Children's Fund (UNICEF), is intended to make Canadians more aware of the quality of life in Third World nations where children represent the majority of the population.

Last spring, CIDA's President announced plans to provide two forms of multilateral aid in honour of the International Year of the Child. The joint Red Cross-UNICEF Committee received a cheque for \$832,790 for its program aimed at informing Canadians about the situation of children in the Third World, and UNICEF was awarded a grant to conduct aid programs for the world's children.

The agency supports the United Nations Declaration of the Rights of the Child which affirms the right of every child to receive adequate nutrition and medical services, including pre-natal care, to be given an education in order to become a useful member of society, and to be brought up in a spirit of peace and universal brotherhood.

## Canadian manufacturing in better competitive position

Canadian manufacturing is in its best competitive position since 1970, according to a study by the Bank of Montreal.

In an analysis of Canadian manufacturing performance in the past two years, published in the July issue of *Business Review*, the bank concluded the industry has improved.

"Output, employment and capacity utilization have all increased substantially." As long as cost increases can be held in check, says the study, the industry is in a good position.

Furthermore, the bank says it expects that the results of the current round of world trade negotiations will have an

important positive impact on Canadian manufacturing. "With tariff barriers lowered by up to 40 per cent and with about 80 per cent of Canadian industrial exports now to enter world markets duty-free, there is a significant expansion potential for Canadian manufacturing."

Unlike manufacturers in the European Economic Community, the United States and Japan, Canadian manufacturers have been at a disadvantage as production runs have been limited by the relatively small size of the domestic market.

## Relief worker lauded for humanitarian contribution

Dr. Lotta Hitschmanova, the founder and executive director of the Unitarian Service Committee of Canada (USC), recently received the 1979 Royal Bank Award for her contribution to humanity.

The award, consisting of a gold medal and \$50,000, is presented annually for "outstanding contributions to human welfare and common good".

Dr. Hitschmanova came to Canada from Czechoslovakia under an emergency visa, in 1942, and three years later founded the USC to assist child victims of the Second World War. The Ottawa-based organization has expanded in the intervening years to become a development agency in Third World countries.

Last year the USC raised \$3.9 million to support aid programs in Vietnam, Lesotho, Botswana, Indonesia, Greece, Bangladesh and Nepal.

In 1952, Dr. Hitschmanova became the first Canadian relief worker invited by the United Nations into war-torn Korea, and in 1976 she was the first representative of a Canadian agency to be asked into Vietnam by the Hanoi government.

J.V. Clyne, Chairman of the award selection committee said, "It is entirely fitting that someone who has dedicated most of her life to helping children should be the recipient of the Royal Bank Award during the International Year of the Child."



Dr. Lotta Hitschmanova, founder and executive director of the Unitarian Service Committee of Canada receives the \$50,000 1979 Royal Bank Award and gold medal from W. Earle McLaughlin, chairman of the bank's Board of Directors.

## Post offices and produce go metric

Post offices went metric recently and in three Canadian cities produce now is available in metric quantities.

Canada's 8,000 post offices have been determining postage according to weight in grams and kilograms instead of ounces and pounds, since July 1. The rates are basically the same, say Post Office officials. It costs 17 cents to mail a first-class letter weighing a maximum of 30 grams; one ounce equals 28.3 grams. The new rate for first-class letters or small parcels weighing a maximum of 50 grams is 26 cents.

Consumers in Peterborough, Ontario, Sherbrooke, Quebec and Kamloops, British Columbia, now can buy meat, fruit and vegetables in kilograms as part of a pilot project to test metric conversion plans. Advertisements for weekly sales are listed with measurements in small print next to the old imperial measurements. Items such as hamburger, potatoes and apples are being sold by the kilogram. Produce across Canada is expected to be sold in metric quantities starting next year.

## First mass produced solar collectors

Industrial history was in the making as Canada's first mass produced solar collectors rolled off the assembly line of Temperature Specialities Manufacturers Limited in Downsview, Ontario.

"We're the first in conveyor line production of solar collectors in Canada," Tibor Lucas, president of the firm, explains. "Our technology in this field has advanced to volume production using factory-type manufacturing as opposed to handicraft methods."

The Temspec solar collectors are large rectangular metal boxes with crystal white glass lids, through which the black collector plates are visible. Copper pipes are carefully soldered to the inside of a copper plate which has been coated with nickel, then with black chrome electroplating.

"This black chrome electroplating ensures 50 to 60 percent more heat retaining efficiency as compared with simple black paint," stressed Mr. Lucas. "And we have a unique, continuous soldering technique that we used for the first time in Canada in solar collectors."

The black plates then join a conveyor line where galvanized steel boxes have been filled with a "degassed" fibreglass insulation. The collector plates are installed in boxes, over which is secured a sheet of special, low-iron, tempered glass that allows 92 per cent of the sun's rays to penetrate. The plates and glass are meticulously cleaned during the final steps.

"This is important," Mr. Lucas emphasized, "because each unit is hermetically sealed afterwards." All the panels are extensively tested under water pressure.

The whole production, which will heat the complete service water system in a nearby hospital, took about three weeks to complete.

The Temspec solar collector method functions as a hot water heating system. Hot water is circulated and recirculated through a series of pipes into a storage tank, passing through the collectors in which the temperature might go up to 400 degrees Fahrenheit without water circulation.

"Our company has many years of experience in hydraulics as we have been manufacturing liquid heating and air conditioning units for at least seven years," said Mr. Lucas.

He credits Professor Frank Hooper of the University of Toronto for establishing Temperature Specialities as a leading pioneer in the manufacture of solar collectors. In 1975 he played a key role in launching Temperature Specialities on a federal-provincial pilot project to test the feasibility of collectors designed especially for the Canadian climate.

The performance of the Temspec collectors, designed by the professor and manufactured by the company, was pitted against that of similar imported units installed in the house. The imported product cracked and broke under climatic stress but the Canadian-made units remained stable.

Mr. Lucas recommends heating with Temspec solar collectors for two main reasons. About the only cost involved is for the initial purchase of the system and, secondly, there is no worry about ever running out of fuel.

With Professor Hooper's scientific leadership, Temspec will develop improved designs for the government's PASEM program. To be ready for real mass-production, required by the national PUSH Solar program, Omar Elwedini, head of Temspec's research and develop-

ment, who worked on the CN tower and the Pickering atomic plant, will organize what may become not only one of the founders of the Canadian solar industry, but also one of its leaders in manufacturing.

(*Ontario Business News*, May, 1979.)

## University of Toronto sponsors ethnic programs

The University of Toronto is providing ethnic communities in Toronto with a vehicle to learn more about Canadian culture as well as their own.

The university's community relations office has been sponsoring or co-sponsoring special week- and month-long emphases on the music, art, literature and history of ethnic communities. It also presents the requirements for admission and the academic programs of the university to many communities in their own language.

Last year the office co-sponsored a month-long theme, Japanese-Canadians: Past and Future, and India Month, commemorating the 10th anniversary of the association between the University of Toronto and the Shastri Indo-Canadian Institute. A Portuguese Week included lectures on Portuguese Canadians, origins of emigration from Portugal and the classical age of Portuguese culture. This spring there were programs on the history of Blacks in Canada, on aspects of Jewish culture and history, and on Caribbean art, music, literature and history.

The programs are not intended to reflect the politics or popular culture of these communities, according to university officials, but are designed to take a more scholarly look at the backgrounds of ethnocultural groups, using the university's professors and departmental resources.

More directly related to university training are the brochures the office provides informing parents and high school students of the requirements for university admission. The brochures have been printed in Chinese, Greek, Italian, Portuguese and Spanish. Plans are underway for a Korean-language brochure.

As a service to university personnel, the office has participated in organizing cross-cultural workshops on how to deal with the growing multicultural mix on campus. A film series on various cultures is being organized for the fall.

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## Frozen tissue bank a first

The freezing of human joints in a tissue bank will allow Calgary General Hospital to start a joint transplant program, the second hospital in Canada to do so.

Toronto's Mount Sinai Hospital was the first to begin such a transplant program, but it lacks the tissue bank which the Calgary hospital says is the first in Canada.

Joints are stored in the bank at temperatures as low as minus 80 degrees Celsius, keeping them fresh for long periods.

Dr. Norman Schacher, an orthopedic surgeon who helped set up the bank, said it enables the hospital to offer an alternative treatment in certain selected cases of early arthritis.

The doctor, who conducted the first partial joint transplant in Canada outside Toronto in May, and Dr. Douglas Bell, another orthopedic surgeon at Calgary General, combined to set up the bank after conducting partial transplants.

Dr. Schacher removed half of a knee joint of a 17-year-old Alberta student, Richard Dillman, after a large tumor was found in it. The joint was replaced by a joint from a donor who died at the city's Foothills Hospital.

Although the student is still recovering, "he has almost a full range of movement of the knee," Dr. Schacher said.

"But it's still far too soon to tell anything. It will be a year or so before we see whether the implanted bone is going to take."

Without the transplant, the student faced the possibility of the tumor destroying the remaining good cartilage and causing arthritis, an incurable disease.

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## Canadians help map Peru

Canadian scientists are helping Peru to map its rivers, roads and volcanoes, says Margaret Munro in *The Citizen*, June 1979. Canadian remote sensing specialists and Peruvian scientists have been using satellites to redraw Peru's official maps, which were based largely on guesswork.

The Peruvian experts have spent months with their Canadian colleagues learning the art of interpreting maps and photographs relayed by satellite.

Agricultural and mining projects have

been undertaken as a result of information received since 1976 by the Canada-Peru team from the data banks of the U.S. and Brazilian space agencies.

"This information comes from satellite sensors that record the visible and near-infrared light reflected off the land and water below and convert the measurements into radio signals, which are recorded by receiving stations around the world," reports Miss Munro.

"The information is transformed by computers into photographic images, which not only map out the landscape, but can distinguish different types of vegetation, soil and rock, a feat not possible with the naked eye."

Fritz Du Bois, the Peruvian director of the \$620,000 four-year program sponsored by the Canadian International Development Agency, will return to Peru this September with a fully-equipped remote sensing lab and the first scientific library on the subject ever compiled in Spanish. Mr. Du Bois said he hopes his government will eventually be able to afford a receiving station to tap the satellite network. Meanwhile, Peru will continue to purchase data collected by the U.S. and Brazilian agencies and interpret it in the new lab.

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## Marathon golf aids injured player

Professional golfers in Ottawa banded together recently to play hundreds of holes of golf to aid another player seriously injured in an accident last January, reports Martin Cleary in *The Citizen*, June 1979.

The golfers were on the courses from dawn to dusk raising an estimated \$85,000 to \$90,000 for Gerry Thompson, an assistant golf professional at a local club, who was left paralyzed from the neck down after an accident in Florida.

Golf for Gerry Day, as the event was called, was devised to pay Mr. Thompson's medical bills which amounted to \$40,000 while he was in a Florida hospital and to offer him some security in the future. Golf club members and the public sponsored participating golfers a certain amount of money for each hole played.

Don Ferne, a golf pro from Cedarhill golf club, along with Carleton golf club's Greg White played for a total of \$20,000, reports Mr. Cleary.

Mr. Ferne estimated he walked 50 miles on his course as he played 126 holes at \$90 a hole or \$11,340 in total. He began his 13-hour marathon session by hitting his first ball at 4:30 a.m. and finished at 5:30 p.m.

Mr. White, a close friend of Mr. Thompson who was with him at the time of the accident, covered the most holes with 136; at \$65 a hole he added another \$8,840 to the fund. "I was beat after 90 holes and ready to pack it in," said Mr. White, who jokingly asked for a stretcher at the end.

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## Researcher's study of deer aids European wildlife management

A research specialist with the Ontario ministry of natural resources, has developed a wildlife management system which has changed the habits of big game hunters in western and central Europe.

Twice in the last year, Anton Bubenik, a native of Czechoslovakia who has been in Canada nine years, has been presented awards for his research.

Last October, the Premier of Austria presented him with an award for work involving the study of herds of red deer, roe deer and chamois — a goatlike mountain dweller.

In April he won an award for professional accomplishments in wildlife management from the Wildlife Society in Rhode Island.

Mr. Bubenik said his work was important in establishing a balanced social structure in herds and a good relationship between deer and the environment.

He said that since his studies were put into use in Europe the anti-hunting mood has changed tremendously.

His work involves the teaching of selective hunting.

"In Austria, sportsmen have learned to identify deer by age and sex before they shoot, in order to leave the right number of mature and experienced breeding animals," he said.

Mr. Bubenik said the numbers and kinds of animals to be shot are planned before the hunt and hunters must carefully adhere to the shooting plan.

Austrian deer caused considerable damage to the forests before Mr. Bubenik introduced selective hunting to balance the social structure of the herds. Now there is little or no conflict with forestry use of the land.

# News of the arts

## Portraits by Gilbert

*Portraits by Gilbert*, an exhibition of 25 recent colour photographs of prominent Canadians, was opened by the Chief Justice of Canada, Bora Laskin, at the Public Archives in Ottawa, May 8.

"All these portraits have been selected from a series being prepared by Mr. Al Gilbert of Toronto for the collection," said Richard Huyda, chief curator of the National Photography Collection. "Gilbert's reputation and skill have brought him the patronage of many prominent Canadians. We are very happy to announce that a selection of these portraits, fine records of distinguished Canadians by a master Canadian photographer, is now in the National Photography Collection."

Among those photographed are Liona Boyd, classical guitarist; Dr. Charles H. Best, co-discoverer of insulin; Conrad M. Black, chairman of the board of Massey Ferguson; and author-broadcaster Pierre Berton.

Al Gilbert's photographic career began in the Toronto studios which his father Nathan had established in 1920. Over the years, as fashion, interests and technology changed, Gilbert developed a unique style of portraiture that has won him national and international recognition.

Gilbert, voted Photographer of the Year in 1968, 1969 and again in 1973, by the Professional Photographers of Canada, holds the PPOC Master of Photographic Arts Award. A fellow of Britain's Royal



Public Archives of Canada

*A portrait of John H. Daniels, deputy-chairman of Cadillac Fairview Corporation, by photographer Al Gilbert.*

Photographic Society and of the Institute of Incorporated Photographers, Gilbert has received the National Award for Ontario and the Master Photographer, Craftsman degree from the Professional Photographers of America. Notably, he is the only Canadian member of the select group of Cameracraftsmen of America.

Gilbert is a popular and constant guest speaker throughout North America and Europe. He has taught at the West Coast School of Photography in California and at the Universities of Mississippi and Maryland. Gilbert has also served as Portrait Instructor in the New Trends Course of Winona, U.S.A.

## Art for youth

Outstanding art students from Ontario high schools are participating in the Art Gallery of Ontario's summer scholarship course. The course began July 1 and runs to July 28, providing 32 students with a month of concentrated art study and practical experience in the Art Gallery's Activity Centre. The curriculum also includes visits to other art institutions and commercial galleries.

Eligible secondary school students aged 16 and over were selected on the basis of artistic ability and potential development as well as geographical distribution within the province.

A grant from the Ontario government's "Outreach Ontario" program will pay all expenses for travel, accommodation, meals and studio materials.

## Former Stratford actress launches movie career

Jennifer Dale, an *ingénue* actress at the Stratford Festival for three years, has embarked on a movie career that may free her from little-girl roles forever. Last autumn the twenty-three-year-old made her film *début* as a stripper in the Canadian shock thriller, *Stone Cold Dead*. She was soon chosen over 100 actresses — almost all French-speaking — for the starring role in *Suzanne*, a \$1.5-million Canadian movie.

Based on Quebec writer Ronald Sutherland's novel, *Snow Lark*, the film tells the story of a beautiful French-Canadian girl's blossoming into womanhood in the 1950s amidst east-end Montreal poverty and cultural confusion.

Filming is scheduled to start in July.

## Inuit myth illustrated

The Inuit Sea Goddess, a spirit, who is purported to rule over the sea animals and sometimes men's destinies, is featured in an exhibition in the *Highlights of the Collection* series at the Montreal Museum of Fine Arts until September 15.

The exhibition includes sculptures, prints and one painting by contemporary Inuit artists, as well as texts and explanatory charts illustrating traditional beliefs or myths surrounding the goddess.

The Sea Goddess was a central figure in the life of the traditional Inuit; she and other spirits and supernatural forces structured the people's moral and ethical codes. The Inuit believed that those who broke taboos would provoke the goddess' anger and she would then cause starvation (this resulted in her hiding the sea animals), bad weather, sickness or even death.

## Arts briefs

**Birgit Nilsson**, internationally acclaimed Swedish soprano, will appear in a gala concert presented by the Canadian Opera Company at the O'Keefe Centre, October 27. The concert marks Miss Nilsson's first North American concert engagement in five years. Her program in Toronto will be composed of selected German and Italian music.

**Monique Leyrac** has been awarded this year's \$1,000 Calixa-Lavalée music prize by Montreal's St. Jean Baptiste Society. The singer has recorded a dozen albums and pursued an acting career since the age of 14 that has included performances in theatre, television and films.

**Lambros Lambrou**, principal dancer with the Alberta Ballet Company, has been appointed resident choreographer for the 1979-80 season. Mr. Lambrou is to choreograph at least two new works for the company in the coming season.

**Jacob Two-Two and the Hooded Fang**, the film based on Mordecai Richler's children's story, recently won a special award in the Eighth Annual Los Angeles International Children's Film Festival.

**The 80-member Estonian Male Chorus**, making its first North American appearance, will be featured at the Kit-chener Oktoberfest this October. The singers are coming specifically for the annual Ontario festival, but will also sing in Ottawa and Kingston.

## Science Council of Canada

(Continued from P. 2)

age its agencies, such as Petro-Canada, or influence its partners, such as Pan-Arctic, to increase and co-ordinate their efforts in developing the necessary technological capabilities. This will enable early access to oil and gas resources and ensure significant transfer to Canadians of the benefits accruing from such industrial development.

"On the other hand, AECL is clearly the chosen instrument for demonstration of the feasibility of a thorium cycle nuclear reactor. In this case, AECL will need to ensure that Canadian industry becomes involved at the outset, so that an indigenous technological capability and structure of appropriate size is in place by the time the new reactor reaches the stage of commercialization.

"One particularly innovative management structure is the Alberta Oil Sands Technology and Research Authority (AOSTRA), which was set up to capture, hold and manage the intellectual property surrounding *in-situ* oil sands.... It has an initial fund of \$100 million to allocate among contractors, for industrial research and pilot projects related to *in-situ* extraction and production of hydrocarbons from oil sands. AOSTRA is, thereby, a powerful instrument for the implementation of the policies of the Alberta government.

"The sharing of responsibilities with respect to transportation, storage and disposal of irradiated fuel, is an illustration of co-operation between federal and provincial government organizations.

"Merging government expertise, at federal and provincial levels, with industrial expertise in energy-related demonstration projects, will ensure that Canada is able to develop and maintain technological sovereignty in key areas of the energy sector. This sector is, in turn,

inextricably tied to economic, social and political sovereignty."

### The Council's conclusions

The Council concludes that the report's "main thrust is not to make rigid decisions, but — because of uncertainty — to advance a diversified and broadened supply options base, and thus provide, with greater confidence, more choices or future decisions. An important by-product will be an increase in the system's stability".

"National demonstrations are suitable instruments for progressively reducing un-

certainty. Demonstration results, being invested with the "authority of actual presence for all to see", will bring research and development objectives into better focus," says the report.

The Council's conclusions are based on the technological experience of a group of experts, who within the framework of the study during the years 1976-1978, ranked "the various technologies in accordance with technical, economic, and socio-political criteria". The recommended demonstrations must be viewed as extensions of the technologies ordered by priority, says the Council.

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## News briefs

**The Chief Justice** of Canada, Bora Laskin, was given an honorary doctorate from Harvard University at its spring convocation. Others honoured included Helmut Schmidt, Chancellor of West Germany; Sir George Solit, musician; Yves Cousteau, French oceanographer; and Prof. Milton Freidman of Chicago, a Nobel Laureate in economics.

**Directors of the Provincial Bank** of Canada and the Bank Canadian National, both of Montreal, have agreed in principle to merge the two banks. Bank Canadian National ranks sixth in terms of assets among the Canadian banks with assets of \$8.6-billion at April 30, and Provincial Bank ranks seventh with assets of \$5.3-billion. The merger must be approved by regulatory authorities and shareholders.

**Canada's seasonally adjusted unemployment rate** declined to 7.5 per cent in June, its lowest level since December, 1976, Statistics Canada reports. The June rate compares with jobless levels of 7.7 per cent in May and 8.5 per cent in June, 1978. The seasonally adjusted number of unemployed was 831,000, down from 853,000 in May and down from 923,000 in June, 1978.

**A British Columbia company** has been awarded a \$600,000 (U.S.) contract to build an underwater recovery system for the U.S. Navy. International Submarine Ltd. of Port Moody will build the unmanned submersible, to be used mainly in the recovery of torpedoes and other ordnance. The craft is expected to be employed at a weapons range off the British Columbia coast. The underwater craft is scheduled to be completed by the end of November.

**A joint Canada-U.S. tourism study** group has been established to examine the possibility of creating a pass similar to Europe's Eurailpass. But unlike the Eurailpass — a ticket good for unlimited travel on railroads in a number of European countries for a certain length of time — the pass proposed at the seventh annual conference of U.S. governors from six New England States and five eastern Canadian premiers would apply to other forms of public transportation as well. The creation of the pass was a recommendation of a Quebec Tourism Department study group looking into ways of increasing tourism in Eastern Canada and the northeastern United States.

**Department store sales** totalled \$685.1 million in May, up 12.1 per cent from a year earlier, according to Statistics Canada. In Ontario, sales totalled \$248.4 million, up 10.1 per cent from a year earlier; Quebec \$135.3 million, up 11.1 per cent; British Columbia \$107 million, up 15.8 per cent; Alberta \$92.7 million, up 14.4 per cent; Manitoba \$37.6 million, up 9.8 per cent; Saskatchewan \$18.7 million, up 16.2 per cent; and Atlantic Provinces \$45.3 million, up 14 per cent.

**A small pine tree** in Touraine, Quebec, near Ottawa became the roost recently for about 7,000 bees that had followed their queen out of an unknown hive. The bees were spotted by Robert and Diane Vachon who called the police and a beekeeper. The queen bee was lured into a crate baited with honey, and the rest of the swarm slowly followed. The process took about two hours, and curious neighbourhood youngsters kept their calm and their distance. Nobody was stung and the origin of the bees is still unknown.

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