

# Canada Weekly

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## Canada's natural gas reserves larger than estimated

The National Energy Board's estimate of established natural gas reserves in the conventional producing areas of Canada at the end of 1978 is 66.1 trillion cubic feet (Tcf) — 4.7 Tcf more than the Board estimated for year-end 1976 in its Northern Pipelines report. The revised figures are contained in a new report, *Canadian Natural Gas Supply & Requirements*, released by the Board on February 28.

Other main conclusions of the latest report are:

In the Mackenzie Delta-Beaufort Sea area, the Board finds no change to be required in the 5.3-Tcf estimate of established marketable gas presented in the Northern Pipelines report. The estimate of established reserves of marketable gas in the Arctic Islands has been increased from 7.3 Tcf to 9.2 Tcf. A meaningful estimate of established reserves in the East Coast offshore areas is not possible at this time.

Growth in demand for natural gas in existing markets will average 3 per cent a year from 1978 to 2000. For the year

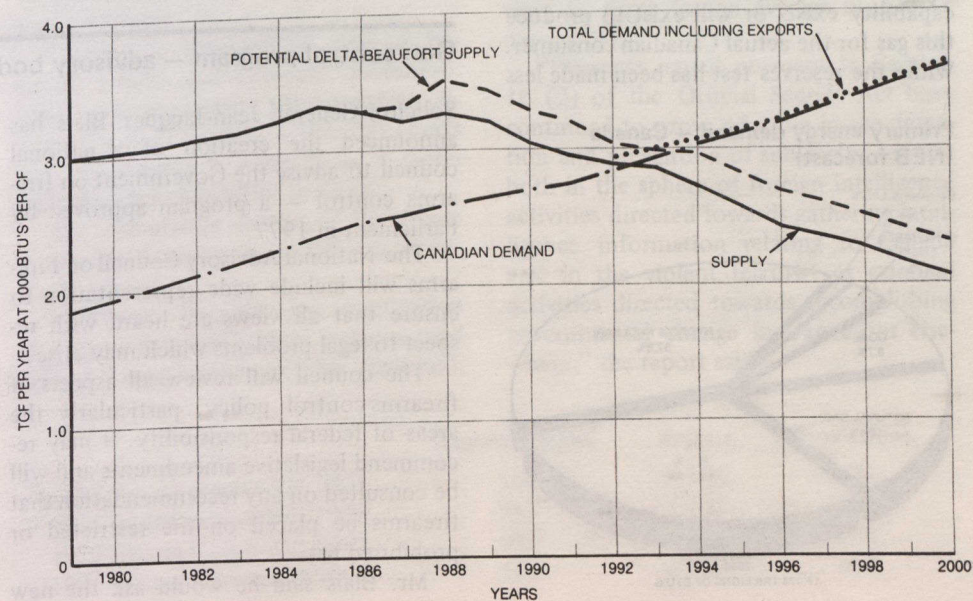
1990, the forecast is some 11 percent lower than the forecast shown in the Northern Pipelines report. This reduction results from a lower forecast of economic activity and a lower demand for natural gas for the generation of electricity than was contained in that report.

### Expansion markets

The Board has made an estimate of potential sales of natural gas in expansion markets in Quebec and the Atlantic provinces which might take place. It has made allowance for this demand as part of Canadian requirements, recognizing that the justification for such expansion will be required to be demonstrated in a subsequent hearing.

Under certain conditions, the Board estimates, additional net sales of natural gas east of Ontario might be approximately 180 billion cubic feet (Bcf) in 1990, rising to some 255 Bcf in the year 2000. The amounts of imported oil which might be displaced by additional sales of natural gas in Quebec and the Atlantic provinces

Gas supply/demand balance for conventional producing areas (NEB forecast)



Thirty-five years ago March 23... Maurice "Rocket" Richard scored all Montreal Canadiens' goals in a 5-1 win over the Toronto Maple Leafs. During his 18 seasons in the National Hockey League, The Rocket led the Canadiens to eight Stanley Cup victories and five other Cup finals. He retired at age 39 in 1960.

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are some 80 thousand barrels a day (Mb/d) in 1990, increasing to some 110 Mb/d in the year 2000.

### Tests determine surplus

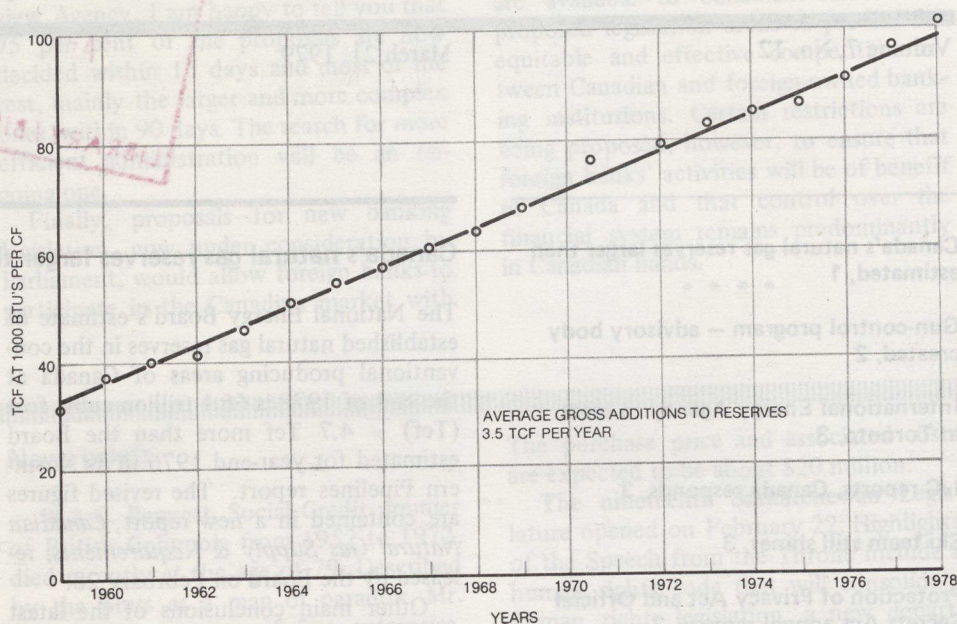
The Board has concluded that the determination of a surplus of natural gas should be made using three tests: current deliverability; current reserves; and future deliverability. All three tests would have to be met before the Board would deem a surplus to exist.

If a surplus were found to exist under all three tests, the Board would then consider applications to export all or a portion of this surplus. If these applied-for exports depended only on deliverability from reserves already found, the Board would consider granting firm export licences. For any portion of the period for which applied-for exports depended on deliverability from established reserves plus estimated future additions to reserves, the Board would only grant conditional export licences. That is, if the ability to deliver gas from additions to reserves turned out to be less or if Canadian requirements proved to be greater than had been estimated when the licence was granted, these conditional exports could be reduced or revoked.

### Domestic protection

The addition of the deliverability tests provides a degree of protection to Canadian consumers that did not exist under the previous procedure. That is, before allowing exports, the Board now requires not only that there is a sufficient quantity of natural gas in the ground to meet future Canadian needs, but also that the capability exists or will exist to produce this gas for the actual Canadian consumer. While the reserves test has been made less

Initial established marketable reserves — conventional producing areas



stringent, the over-all protection for Canadian requirements provided by the new procedure is greater because of the deliverability standards that are imposed.

In the latest report, the Board illustrated its new procedure for determining the amount of surplus. Because of the deliverability tests, the surplus found could vary somewhat, depending upon the pattern of the annual export quantities and the term of the export being considered.

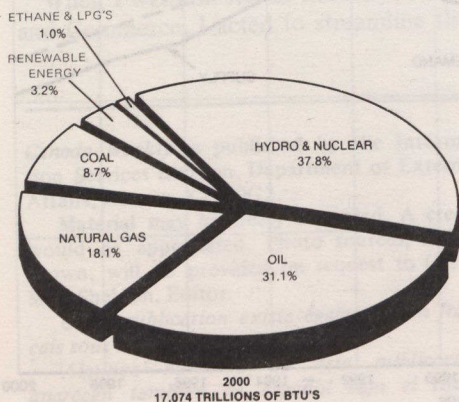
The Board found that surplus gas exists and that the approximate volume of the surplus is 2 Tcf which could be exported over a period of approximately

eight years. (A projection of deliverability has been made, based on production capability, assuming no market constraints. This capability, 3.5 Tcf/year in 1979, reaches a peak in 1981 at 3.8 Tcf/year, then declines, reaching 1.9 Tcf/year by the year 2000, the end of the forecast period.)

The Board has concluded that ethane should be treated as a separate product, as are ethylene, propane and butanes, in the determination of gas surplus.

(For more information, please contact the National Energy Board, Trebla Bldg., 473 Albert Street, Ottawa, Ontario, Canada K1A 0E5.)

Primary energy demand — Canada (NEB forecast)



### Gun-control program — advisory body created

Solicitor-General Jean-Jacques Blais has announced the creation of a national council to advise the Government on firearms control — a program approved by Parliament in 1977.

The National Advisory Council on Firearms will include wide representation to ensure that all views are heard with respect to legal problems which may arise.

The council will review all aspects of firearms-control policy, particularly the areas of federal responsibility. It may recommend legislative amendments and will be consulted on any recommendation that firearms be placed on the restricted or prohibited list.

Mr. Blais said he would ask the new

body to make recommendations on the need for more education on firearms safety. The ten provinces and two territories, which are responsible for firearms safety training, are members of the council.

“In my view,” said Mr. Blais, “firearms-safety education extends well beyond the mechanics of safely using, transporting and storing guns, important as this is. It extends to better informing all Canadians about the role of firearms in our society, the need for them as well as the problems they create and the controls necessary to ensure that they may continue to be used and enjoyed by responsible Canadians.”

## International Energy Agency to meet in Toronto

The 20 member nations of the International Energy Agency (IEA) have accepted Canada's invitation to hold the next ministerial meeting of the governing board in Toronto on May 21-22.

The last meeting, held in Paris in October 1977, was chaired by Minister of Energy, Mines and Resources Alastair Gillespie. At that meeting, ministers adopted a decision establishing objectives for total oil imports and 12 principles of energy policy as guidelines for the implementation of national measures in such areas as conservation, use of more plentiful fuels, and expansion of indigenous energy supplies.

The meeting in May will review progress by member countries in response to those objectives and assess the world energy situation with particular reference to recent international developments affecting the oil market. It will also consider ways of encouraging the expansion of steam coal production and trade within the IEA.

## Protection of Privacy Act and Official Secrets Act annual reports

The use of electronic surveillance by police in Western Canada recently contributed to the arrest of five persons and resulted in seizure of 13.6 tons of marijuana with a street value of \$35 million, Solicitor-General Jean-Jacques Blais reported recently.

The information is contained in the Solicitor General's annual report under the Protection of Privacy Act which reveals, under a legal requirement, the number of interceptions of private communications conducted by the police in Canada for federal offences. There were 712 authorizations granted in 1978, and three applications were denied.

Applications for interceptions must be approved by a designated investigator's superiors and an agent specially designated by the Solicitor General — usually a law officer of the Crown. A judge of a superior court of criminal jurisdiction or a judge as defined in Section 482 of the Criminal Code must also be satisfied by a statement under oath that the interception is necessary and is indeed the only way of

## IJC reports, Canada responds

Canada has conveyed to the International Joint Commission (IJC) a formal response to the recommendations to Governments contained in the IJC's Fifth Annual Report on Great Lakes Water Quality.

The report identified several of the recommendations in the 1976 Report of the Great Lakes Water Quality Board to which the IJC believes Canada and the United States, as parties to the Great Lakes Water Quality Agreement, should give priority consideration.

Canada and the province of Ontario recently completed a comprehensive review of Great Lakes water quality matters in light of the report. The combined response informs the IJC of the specific status of Canadian federal and provincial programs and expresses continued support of the objectives of the agreement.

Copies of the Canadian response may be obtained from: Canada-United States Relations Division, Intergovernmental Affairs Directorate, Corporate Planning Group, Department of Fisheries and Environment, Ottawa, K1A 1C7.

obtaining the necessary evidence.

Although the seizure in Western Canada was the most spectacular, through the use of electronic surveillance, other very substantial quantities of illicit drugs were prevented from reaching the neighbourhood traffickers and users. These are: heroin, 2.5 kilos; cocaine, 2 kilos; hashish, 29 kilos; hashish oil, 7.6 kilos; and marijuana, 467 kilos.

There is a considerable time-lag between arrests and eventual conviction. Many cases concerning authorizations obtained in 1975 are still before the courts and the number of convictions is therefore expected to increase in 1979.

The cumulative nature of the figure is demonstrated by using 1975 as an example.

"It is very clear that the interception of private communications is being used only as a very last resort," Mr. Blais said.

## Ski team still shines

The Canadian men's downhill team placed five in the top ten at the U.S. national downhill skiing championships in Lake Placid, New York, last month.

"That shouldn't come as a surprise to anyone," said Ken Read, the 24-year-old Calgary skier ranked among the top three downhill racers in the world. "We've been coming on strong for the last five years."

Read, twice a winner on the World Cup circuit, finished fourth in the race down the 3,028-metre course with an 832-metre vertical drop. Toronto's Steve Podborski placed third, Dave Murray of Abbotsford, British Columbia was fifth, Dave Irwin of Thunder Bay, Ontario took seventh place and Robin McLeish of Kanata, Ontario shared tenth place.

The comraderie of the Canadian skiers was noted by a U.S. team official. "I've never seen a group so together with each other, so caring about how the other guy was doing," he said. "They were just beautiful to watch in those bright yellow suits coming down the hill and then gathering at the finish line to cheer their teammates."

"However, electronic surveillance remains an essential tool if certain types of crimes are to be contained."

## Official secrets

The Solicitor General also tabled his annual report to Parliament on the Official Secrets Act, which indicated that a total of 392 warrants were issued and that they were in force for an average of 244.71 days.

"Warrants issued pursuant to Section 16 (2) of the Official Secrets Act have continued to prove of value in the detection and prevention of subversive activity both in the sphere of foreign intelligence activities directed towards gathering intelligence information relating to Canada and in the violent terrorist or criminal activities directed towards accomplishing governmental change in Canada or elsewhere," the report said.

	Authorizations	Arrests	Convictions
1975 figures reported in 1975	562	1,208	196
1975 figures reported in 1976	562	1,492	514
1975 figures reported in 1977	562	1,523	836
1975 figures reported in 1978	562	1,557	968

## Quebec champions of Canada Games

It was just as well that Quebec had the top weightlifters at the 1979 Canada Winter Games in February. Somebody had to carry all the medals home.

Quebec took away 47 gold medals, six of them in weightlifting, and 20 silver and 26 bronze from the two-week competition in Brandon, Manitoba. Ontario claimed 20 gold, 31 silver and 20 bronze.

### Points formula

The points formula awards ten points to the team performing best in each sport. The second team gets nine, the third eight, and so on to eighth place. Half-points separate the last four competitors, so that the bottom-placed province or territory still gets a point.

So the tie-breaking point was at stake as Quebec's experienced basketball team, led by Linda Marquis's 18 points, defeated Ontario 71-52 and took the overall title by 186.5 points to 185.5. British Columbia was third with 156 and Manitoba defeated Alberta for fourth place, 136 to 134.5.



CP laserphoto by Fred Chartrand

Quebec basketball players Marie Codere (11), Wendy Verrecchia (15) and Karen Diaz (10) wildly react to the announcement of Quebec's victory in the tie-breaking basketball game with Ontario. The result of the game determined Quebec's place as over-all victor in the two-week competition.

Saskatchewan followed with 101.5 points, Nova Scotia with 98, New Brunswick with 92, Newfoundland with 77, Prince Edward Island with 61, the Yukon with 27.5 and the Northwest Territories with 19.

Quebec's basketball, badminton and table tennis teams did not lose a game. Its fencers took nine of a possible ten gold medals, its speedskaters won seven out of ten and its synchronized swimmers swept the solo, duet and team titles. The judo team won four out of six classes and the women gymnasts topped the standing in spite of the four gold medals won by 12-year-old Bonnie Wittmeier of Winnipeg.

Two Quebecers collected four golds each — Sylvie Daigle of Sherbrooke in women's speedskating and Yves Dion of Ste. Foy in men's gymnastics. Jean Pichette of Ste. Foy won three men's speedskating races.

Ontario's top medal winner was gymnast Brad Peters of Brampton with three gold medals, a silver and two bronzes.

More than 5,000 athletes from all ten provinces and the territories participated in the events, many of which took place in the \$3-million Canada Games sports complex, which features a 50-metre swimming pool, regulation ice surface, three racquetball courts and a 400-metre speedskating oval.

An excellent existing facility in Brandon, the Keystone Complex, which houses a 5,000-seat arena, was the site of the opening and closing ceremonies as well as the final competitions of many events. More than \$375,000 was spent to upgrade facilities in the Brandon area.

Events included hockey, gymnastics, figure skating, boxing, basketball, racquetball, cross-country and alpine skiing, speedskating and synchronized swimming.

## Canada/EEC fisheries accord

Secretary of State for External Affairs Don Jamieson and Minister of Fisheries and Oceans Roméo LeBlanc have announced provisional implementation of the Agreement between the Government of Canada and the European Economic Community on Fisheries. EEC vessels have been authorized to begin fishing in accordance with Canadian regulations for their 1979 allocations from stocks in the Atlantic 200-mile zone, which are surplus

to Canadian needs.

The short-term accord, which terminates on December 31, was initialled by Canadian and EEC negotiators in Ottawa last July. Arrangements are being made for its formal signature in Brussels very soon, and subsequent implementation.

"Acceptance of this interim agreement marks a step forward in Canada-EEC cooperation in fisheries," Mr. LeBlanc said. "It provides a basis for allocations to the EEC in Canadian waters in 1979, and ensures that there will be no increase in the catch of salmon of Canadian origin off West Greenland for this year.

"The agreement also provides a sound basis for the continuation of negotiations aimed at achieving a long-term agreement on future co-operation in fisheries and in the trade of Canadian fish products between Canada and the European Economic Community," said Mr. LeBlanc.

## Manitoba leader in fight against child abuse

Manitoba has become one of the first provinces in Canada to have the medical profession formally join with a branch of government in the fight against child abuse, provincial Health and Community Services Minister Bud Sherman announced recently.

With advice from specialists in Mr. Sherman's department, the College of Physicians and Surgeons of Manitoba has issued a 21-page physicians' protocol to assist in the detection of child abuse. Manitoba's multi-disciplinary approach to treatment and the physician's role in this approach are major themes of the protocol, which includes the names, addresses and telephone numbers of related services and agencies.

Mr. Sherman noted that since September 1976, there had been consultation on child abuse cases by his department, the Attorney-General's department, police, child-caring agencies, and health professionals. The Children's Centre at the Health Sciences Centre and St. Boniface General Hospital, both in Winnipeg, have also been very active in the prevention of child abuse.

The minister said the inter-agency cooperation that had developed in recent years was reflected in better reporting of child abuse cases recorded by his department's registry.

# News of the arts

## Museum stuffed with birds

The National Museum of Natural Sciences in Ottawa recently acquired an important collection of more than 200 stuffed birds, the property of the late A. Bourignon, a member of the Ottawa Field-Naturalists' Club until his death in 1968.

Commenting on the collection, *Le Droit* journalist Pierre Ouimet, wrote:

"The specimens of the Bourignon collection are preserved and stuffed with astonishing accuracy.... Indisputably, the taxidermists...have reproduced the colours, poses and attitudes of these birds in a very lifelike manner.



Le Droit photo by Paul Chiasson

*Bittern and infant.*

"The collection includes a wide variety of volatiles, from the tiny ruby-throated hummingbird weighing barely two ounces (56 g) to the majestic 12-pound (5.40 kg) whistling swan. There are also magnificent specimens of eagles, owls, and a loon dubbed the "diver" in Europe because of its ability to spend relatively long periods under water.

"In addition to the most common birds of this area, such as the American robin, the blue jay and the black-capped chickadee, the collection includes rarer birds such as the black common raven and the turkey vulture....

"...the rarest bird in the collection is undoubtedly a summer tanager, a small, entirely red bird which must have wandered thousands of kilometres from its natural habitat."

## School population changes shape

Fluctuations in the school-age population, which have plagued education planners throughout the 1970s, are going to get worse, not better. This is the conclusion of a new study based on 1976 census data which has just become available.

Statistics Canada's, *The Class of 2001* projects the size of Canada's three school-age population groups to the turn of the century. The report studies the implications for enrolment, teacher hirings, finance, and employment opportunities for young people.

### Demographic factors

Fertility and migration have changed the shape of the school population. The decline in fertility (average number of babies *per* woman of childbearing age), which began about the early 1960s, was sharper than expected. The resultant drop in births, immediately after the postwar baby boom, produced waves in the young population.

The number of elementary children in the country is likely to continue to drop until the early 1980s from 3.69 million in 1976 to 3.29 million. Numbers will level off for a few years, rise about 10 per cent to the mid-1990s, and then fall again.

The secondary age group is now decreasing. The low point is projected to be 1.46 million in 1990, about 24 percent fewer than present figures.

As the younger age groups mature, the same fluctuations will affect the post-secondary population, although there will not necessarily be a corresponding rise and fall in post-secondary enrolment, as many social and economic conditions influence students' decisions to continue their education. The group should peak at 3.36 million in 1982. It will fall to a low about 2.65 million by the middle of the 1990s.

### Migration impact

Migration has counterbalanced or exaggerated the impact of fewer births. Over-all, during 1977-78 Canada gained an average 1.5 residents *per* 1,000 population, a total of 34,700. But migrants were not distributed equally among the provinces. Alberta's net migration of 34,000 gave a rate of increase of 17.9 *per* 1,000 — nearly triple what it had been only four years earlier. Quebec had a net loss of

## Research on aging

The Ontario government is setting up a research agency on aging to be given \$1.5 million over the next three years.

Provincial Health Minister Dennis Timbrell made the announcement in a speech to a medical symposium on aging, in Ottawa last month.

"While our interests are primarily health-related, like increasing knowledge of the nutritional requirements of the aged, research will not be limited to medical concerns.

"This group will support research into a broad range of issues, including ways of enabling older people to live independently in their communities."

In his speech, Mr. Timbrell noted there were 140,000 more senior citizens in Ontario today than there were ten years ago. And population projections show that by the year 2000, Ontario will have more than 1.3 million senior citizens.

45,000 or minus 7.2 residents *per* 1,000, in contrast to its 1973-74 loss of 2,000 or minus 0.3 *per* 1,000.

Projections of the three school-age populations in the Atlantic provinces, Quebec, Manitoba and Saskatchewan suggest that the next increase will fall far short of the baby-boom peak, and the subsequent decline will be steeper than any yet experienced. On the other hand, the age groups in Alberta and British Columbia are expected to rise to the baby-boom level or higher before the turn of the century.

## Posthumous award

The Cross of Valour, Canada's highest decoration for bravery, was awarded posthumously to Thomas Hynes by Governor-General Edward Schreyer at an investiture at Government House March 9. It was accepted by his mother.

Mr. Hynes, 19, of Fortune Bay, Newfoundland, died on December 29, 1977, when he dived through a frozen pond and saved the life of his eight-year-old cousin.

During the ceremony, Mr. Schreyer presented one Cross of Valour, nine Stars of Courage and 18 Medals of Bravery.

## Commonwealth Day observed

Commonwealth Day was observed in Canada and throughout the Commonwealth on March 12, the second Monday of March, in accordance with a proposal made by Prime Minister Trudeau at the 1975 Commonwealth Heads of Government Meeting held in Kingston, Jamaica.

The observance of Commonwealth Day is intended to emphasize the value Canada attaches to its association with the Commonwealth's 40 countries, representing many races and cultures.

A varied program of events marked the day in Canada. Special inter-faith services were held across the country, and in Ottawa there was a display of the flags of the Commonwealth nations in Confederation Square and a reception hosted by Commonwealth High Commissioners.

## Drifting snow reduced to a mathematical model

Drifting snow can bury entire buildings, cover roadways and make aircraft landings impossible.

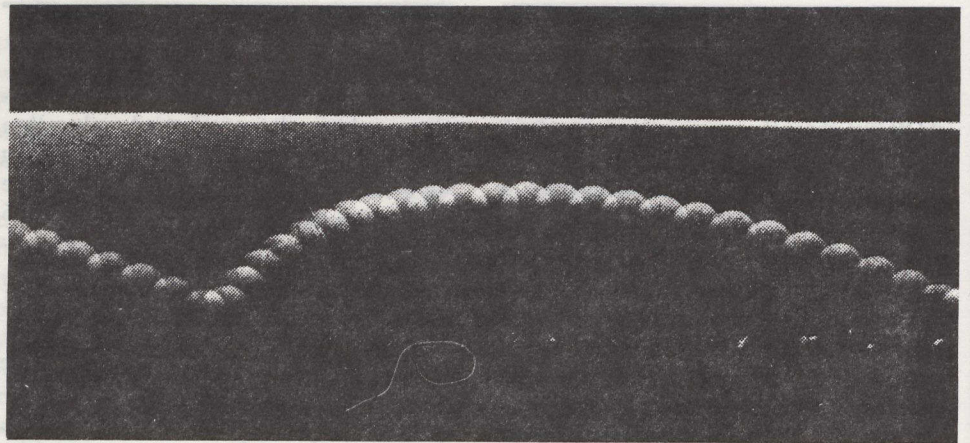
While experience has shown that snow drifting is strongly affected by temperature variation, humidity and solar radiation — all of which contribute to the formation of cohesive forces between snow crystals — research on drifting has been done, until now, only on non-cohesive particles such as sand or dry snow and has failed completely to solve many of the practical problems people face in the Arctic.

However, Dr. J.S. de Krasinski, a professor in the department of mechanical engineering at the University of Calgary, and Dr. J.T. Szuster, a visiting researcher from the Technical University of Warsaw, have now completed a research project on the effects and implications of cohesive forces on drifting snow.

The results are better than originally expected, says de Krasinski, and confirm known experimental data on sand and snow drifting without cohesive forces.

It was apparent that even comparatively weak cohesive forces have a great influence on drifting — the higher the cohesion, the higher the wind velocity required to lift the particles off the ground.

Once the results of the tests were analysed and the data fed into a com-



*A centrifuge was used to study strength of cohesive forces on particles the size of snow flakes as well as models the size of ping pong balls. The stroboscopic photograph (above) shows a ping pong ball in a moving stream of water (used to simulate wind).*

puter, the researchers developed a mathematical model which will accurately predict the effects and implications of cohesive forces on drifting snow.

Meteorologists will now be able to predict how much drifting will occur at certain temperatures, or on a sunny day as compared to a dull day.

"The model can even be used to predict such refined details as the effects on a solid particle's landing characteristics due to its rotation and the attracting forces between the particles on the ground," says Dr. Szuster.

"This is very basic research but it will have many practical applications," he comments. "Our results can be applied, not just to snow drifting, but to sand drifting, silting in rivers and even dust problems arising from transporting coal in pipelines.

"More research is needed but an important chapter in the drifting mechanism has been opened."

The research project was sponsored by Imperial Oil Limited.

*(From the University of Calgary Gazette, Vol. 8, No. 9, December 1978.)*

## Test-tube potatoes

A scientist at Agriculture Canada's research station at Morden, Manitoba, has pioneered a method of growing potatoes in test tubes.

"From this meagre beginning," says scientist Andy Russell, "enough tubers are produced in two years to get growers started on a new variety. In effect we can get a tonne of potatoes from a test-tube plant."

The idea began with a technique involving tissue culture, used at Agriculture Canada's Vancouver Research Station, where it is used in the evaluation of plant diseases.

"The time needed to build up the necessary stock to get growers started is much less than the old method. We also save space and disease problems are greatly reduced," Mr. Russell explains. "Sanitation is much easier because we can keep the cultivars disease-free in the test tubes and later in the greenhouse."

From a plant with ten leaves, Mr. Russell roots cuttings under conditions of long day-length in a greenhouse. Each cutting produces another plant that is transplanted into flats and can in turn be used to produce ten more cuttings. The process continues until the necessary stock is produced.

"We even get a little bonus in that many of these plants in fact produce small tubers in the flats. These are also used in the multiplication process," the researcher says.

He stresses the main use of the system is to get potential potato varieties to growers as quickly as possible and to obtain an early evaluation from industry. Mr. Russell predicts a substantial increase in potato acreage on the Prairies in the next decade.

"There were 42,000 acres of potatoes grown in Manitoba alone last year," he says. "Another 20,000 acres were grown in Alberta and Saskatchewan. This could increase by at least 10,000 acres by 1988."

# News of the arts

## Unusual film at the ROM

A poignant Ojibway legend has been made into an unusual film, titled *The Man, the Snake and the Fox*, which was shown recently at the Royal Ontario Museum in Toronto.

The film, 15 minutes long, combines live action and puppetry, as Basil Johnston of the museum's Ethnology Department relates the legend to a group of Indian children. Large puppets, fully articulated, with moving heads, arms, legs, mouths and eyes, act out the tale. One of them is able to notch his bow and arrow and shoot it.

*The Man, the Snake and the Fox*, based on a traditional tale, was written by Basil Johnston and directed and produced by Tony Snowsill. The character voices are all done by Indian actors. The audience of children featured in the film come from the Wandering Spirits Survival School in Toronto, and the title song is sung in Ojibway by Edna Manitouwabi. The film, which is in colour, is sponsored by the Department of Indian Affairs and Northern Development. It will be distributed by the National Film Board of Canada.

## New organ hits right chord — and is bound for Chicago

Electronics technician Neil Shaw has developed an electronic organ that he claims sounds like a traditional pipe organ.

The evaluation committee of the Chicago Symphony Orchestra thinks so too, calling the Shaw instrument "the only electronic organ that has the integrity, warmth and versatility necessary to be a fit companion to our great orchestra".

When he began, Mr. Shaw designed electronic organs which were, in his words, "not much better than those produced by other manufacturers — they mixed sounds electronically rather than acoustically as done with the traditional pipe organ — I thought I could make some improvements".

The improvements created a brand new instrument: a "multi-channel, multi-sound" organ, each note separately generated through its own electronic circuit. The notes "mix with themselves in the auditorium space rather than within electronic circuitry".

The electronic hardware fits into a

compact bank of drawers about one-eighth the space required for organ pipes and costs about 35 percent less to build. Maintenance costs are also lower. As well, the Shaw organ is always in tune — not the case with the traditional models.

Aided by the Ontario government's \$52,000-venture capital loan in the early 1970s, Mr. Shaw proceeded to take out international patents and to market his new Concept Organ. Custom installations were made in schools and churches in both the U.S. and Canada.

Negotiations concerning the installation of a Shaw concert model (the first of its kind) in Chicago's Orchestra Hall are now in progress. Cost of the instrument is estimated at \$250,000.

The Burlington, Ontario, technician looks forward to expanding his business abroad, especially in the European market.



Neil Shaw, president and founder of Shaw Organs Inc., has developed a new electronic organ which evokes enthusiastic responses from both musicians and purchasers.

## Stereo views of James Esson

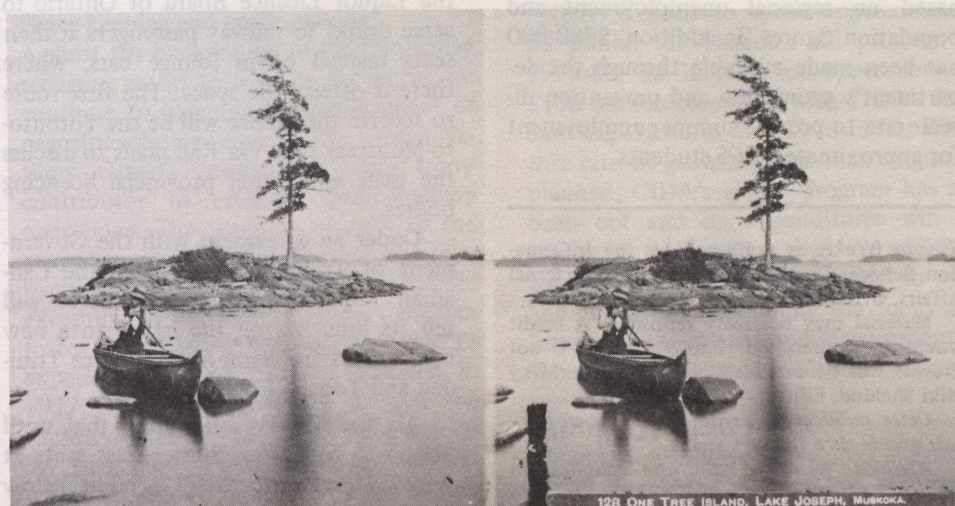
Fifty-seven photographs printed from the James Esson collection of original stereo glass negatives will be on view at the Public Archives until April 30.

Esson's stereographs date from the late 1870s and early 1880s, when he travelled widely to produce hundreds of titles in a dozen series, each defined by theme or geography. Buildings, street scenes and parks form views devoted to such cities as Ottawa, Toronto, Hamilton and Guelph; natural landscape and recreational pastimes make up much of his larger collections, *Among the 1,000 Islands* and *The Scenery of the Northern Lakes of Canada*.

Archivist Joan Schwartz explained how stereographs like *One Tree Island*,

Lake Joseph, Muskoka, were produced: "Esson used a binocular camera fitted with two lenses several inches apart to record the same scene from slightly different angles roughly corresponding to the perspective of the human eye. The resultant double image on a single glass plate facilitated the printing of card-mounted stereographs which, when viewed through a device known as a stereoscope, produced a single image with the realistic sensation of three-dimensional space."

"A box of stereo views and a stereoscope were common fixtures in the Victorian parlour. Card-mounted stereographs provided an entertaining and educational diversion until the early decades of the twentieth century," she added.



James Esson's One Tree Island, Lake Joseph, Muskoka.

## News briefs

The Canadian Government has accepted an Israeli request that Canada undertake the protection of Israeli interests in Iran, following the break in diplomatic relations between the two Middle-East nations.

Higher food costs increased the cost of living during January to a 12-month rate of 8.9 per cent, compared with 8.4 per cent a month earlier.

Indonesia and Canada have signed a technical co-operation agreement worth \$2.77 million. The Canadian aid will be spent on hydro-power generating projects in Irian Jaya (West New Guinea) and Bengkulu, Sumatra, and steam power projects in north Sumatra.

Yvon Beaulne, former Canadian Ambassador to UNESCO and now Canada's Ambassador-designate to the Holy See, has been elected Chairman of the thirty-fifth Session of the United Nations Commission on Human Rights. Ambassador Beaulne, nominated for the position by France and seconded by Senegal, Poland, Brazil, and Pakistan, was elected by acclamation. Canada, which is serving a three-year term (1979-81) on the 32-member commission, now meeting in Geneva, was also a member from 1963-65 and 1976-78.

A \$920,000-program administered by National Health and Welfare will enable voluntary health agencies, non-profit organizations or other voluntary groups interested in administering short-term summer health projects to hire about 400 students across Canada this year. Allocation of funds and student positions are based on regional unemployment and population figures. In addition, \$780,000 has been made available through the department's promotion and prevention directorate to provide summer employment for approximately 265 students.

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

Canada was second to Japan during 1978 as the leading supplier of manufactured goods to the U.S., according to a report published by the U.S. Commerce Department. The change represents a major shift in U.S. trading patterns, reducing Canada to second place for the first time.

A new nationwide network of cable television companies linked by satellite will be in operation next autumn, following an announcement by Communications Minister Jeanne Sauvé on February 27. The Federal Government will allow companies to own and run their own satellite earth stations, ending Telesat Canada's monopoly on ownership.

The Federal Government will spend \$113.5 million this summer on the Canada Summer Youth Employment Program, says Minister of Employment and Immigration Bud Cullen. Last year's program required \$94.8 million. The 1979 program is expected to place approximately 266,000 young Canadians in public and private sector jobs, of which 64,000 will be created directly by federal departments. This is an increase of some 12,000 jobs over those created last summer.

China has awarded a \$69-million contract to Control Data Canada Ltd. of Mississauga for 12 Canadian-designed Cyber 170 series computer systems to be used for geophysical exploration and oil and gas research.

Alberta Premier Peter Lougheed has announced the creation of a permanent endowment fund that he said should provide \$25 million to \$30 million annually for medical research. He hopes the program will attract researchers and scientists from other parts of Canada.

Via Rail has been given permission by the Liquor Licence Board of Ontario to serve drinks to railway passengers at their seats instead of in lounge cars, where there is often little space. The first route to receive the service will be the Toronto-Montreal run. Via Rail plans to discuss the issue with other provincial licencing bodies.

Under an agreement with the Government of Trinidad and Tobago the Canadian Imperial Bank of Commerce will sell its branches on the island to a new bank called the Bank of Commerce Trinidad and Tobago Limited.

Air Canada has announced that until May 7 it will offer charter-class seats at prices 10 percent to 42 percent below regular charter fares.

Domtar Incorporated of Montreal plans to participate in a joint venture with Canadian Hunter Exploration Ltd. to acquire and develop natural gas reserves in the Deep Basin area of Alberta and British Columbia. The company will initially spend \$10 million to \$20 million.

This country's economic performance in the 1970s ranks among the top three industrialized nations, but Canadians still expect "that we should do better", G. Osbaldeston, secretary of the Board of Economic Development Ministers, says. He noted that the economy's strong points have been job creation, capital formation and manufacturing production.

Canada has agreed to reduce its oil imports voluntarily by 5 per cent or about 80,000 barrels a day, beginning April 1, as part of an International Energy Agency agreement, Energy Minister Gillespie has confirmed.

Placer Development will spend \$85 million to develop a gold and silver mine near Houston, British Columbia. Production "start-up" is scheduled for October 1980.

Canada will give Pakistan a \$10-million loan to finance the purchase of 30 locomotives, the Federal Government has announced.

After-tax profits for industrial corporations totalled \$13.58 billion in 1978, up 28.7 per cent from the 1974 figure, when profits last reached a peak, Statistics Canada reports. The average wage for all industries in 1978 was \$267 a week, up 50 per cent from the 1974 level.

The Ontario government has announced plans to provide jobs for more than 13,500 young people this summer through a \$19-million program called Ontario Experience '79.

Consumer credit outstanding at the end of 1978 totalled \$35.76 billion, up 14.8 per cent from \$31.16 billion reported a year earlier, Statistics Canada reports.

Canada has become the world's largest fish exporter, with value rising in 1978 to \$1.1 billion, up more than \$300 million from 1977, D. Tansley, deputy minister of the federal Department of Fisheries, has told the Fisheries Association of British Columbia.

Owing to a six-month delay in the proposed construction of a \$4.7-billion oil sands plant at Cold Lake, Alberta, oil will not begin to flow until the middle of 1986 at least, say officials of Esso Resources Canada Ltd.