Canada Today/d'aujourd'hui magazine

Issue No 13 November 1986

Canada shows the world

Canada's aerospace industry on show at Farnborough

Canada offers UK investors access to all North America

Conquering the world from Oromocto, NB

Vickers reaps the benefit of locating in Canada

In this issue

Editors
Richard Starks
Miriam Murcutt

Published by
Canadian High Commission
Public Affairs
Canada House
Trafalgar Square
London SW1Y 5BJ
Tel: 01-629 9492

Design
Christopher Stanbury

Production
Barry Wright

Printing
Thompson & Tompkins Ltd

Typesetting
Type Out

Acknowledgements
Aerospace Industries
Association of Canada

3 Canada offers UK investors access to all North America

5 Canada's financial system — competitive, active and growing

6 Conquering the world from Oromocto, New Brunswick

7 Vickers reaps the benefit of locating in Canada

8 Canada's aerospace industry on show at Farnborough

10 Canada takes the lead in transportation

12 Mosaics
Economy
— Canada gains in competitive sweep stakes
Business
— Marks & Spencer buys subsidiary
— Market terminal helps buyers
International
— Canada places moratorium on African debt
— Canada pledges aid for Ireland
Medicine
— Painless insulin injector developed
— NRC develops meningitis vaccine
Technology
— Waterbombers test fire-fighting foam
People
— BC Premier retires
— New agent general for Saskatchewan
— Maple Leaf Club seeks members
Sports
— Olympic tickets already on sale
Culture
— Shaw papers for Guelph University
— BBC celebrates Canadian music
— Walter Susskind, director of The Toronto Symphony

14 New era of painting exhibited at Canada House

16 Clans gathering in Nova Scotia

Subscriptions
Any change of address should be notified to our subscription secretary, Keith Vines, at Canada House.

ISSN 0226-6685

Other Canadian government offices in the United Kingdom

Canadian High Commission
Macdonald House
1 Grosvenor Square
London W1X 0AB
Tel: 01-629 9492

Front cover
The Canadian Forces' Snowbirds *aerobatic team fly CT-114 Tutors built by Canadair Ltd.*

Editorial

By OECD estimates, the Canadian economy will enjoy real GNP growth in excess of three per cent which places our country among the highest of the seven leading OECD economies. In 1986, the value of Canadian domestic production will exceed a healthy $250 billion which follows a rate of expansion in 1985 (4.5%) that only Japan was able to match. This continuing strong growth, led by strong manufacturing and service sectors is impressive given the downturn in energy and agriculture.

Canada is therefore a major market in its own right — particularly for UK companies wishing to expand overseas. Increasingly, Canada is being seen as both an end market and a gateway to the entire North American marketplace.

UK companies investing in Canada find that the business culture is very familiar. It is distinctly North American, but it also has some characteristics that are noticeably British — a parliamentary democracy, for example, and a similar code of practice for conducting business.

In effect, UK companies find a British-style system of government and law, set in the context of a strong free-enterprise economy and stable environment, which offers a familiar and profitable business culture.

They also find that they can gain easy access to all of North America — one of the largest and richest markets in the world.

Last year, the value of Canadian goods and services sold in the US was more than £45 billion. This is far more than any other country sold, including Japan. In fact the province of Ontario alone exports more to the USA than Japan.

In this issue, we examine some of the reasons investment in Canada by UK companies has recently soared (it rose by close to $2 billion last year), and why the UK remains the second largest source of foreign investment in Canadian with some $10 billion of assets.

We also report on a British company that has a series of profitable ventures in Canada. And we profile a Canadian company that has been particularly successful in world markets from a base in Maritime Canada.

Finally, we take a look at Canada's aerospace industry, which was very much on display at this year's Farnborough Air Show. It is now the fifth largest in the world, and exports more than 80% of its output which is a higher percentage than in any other country.

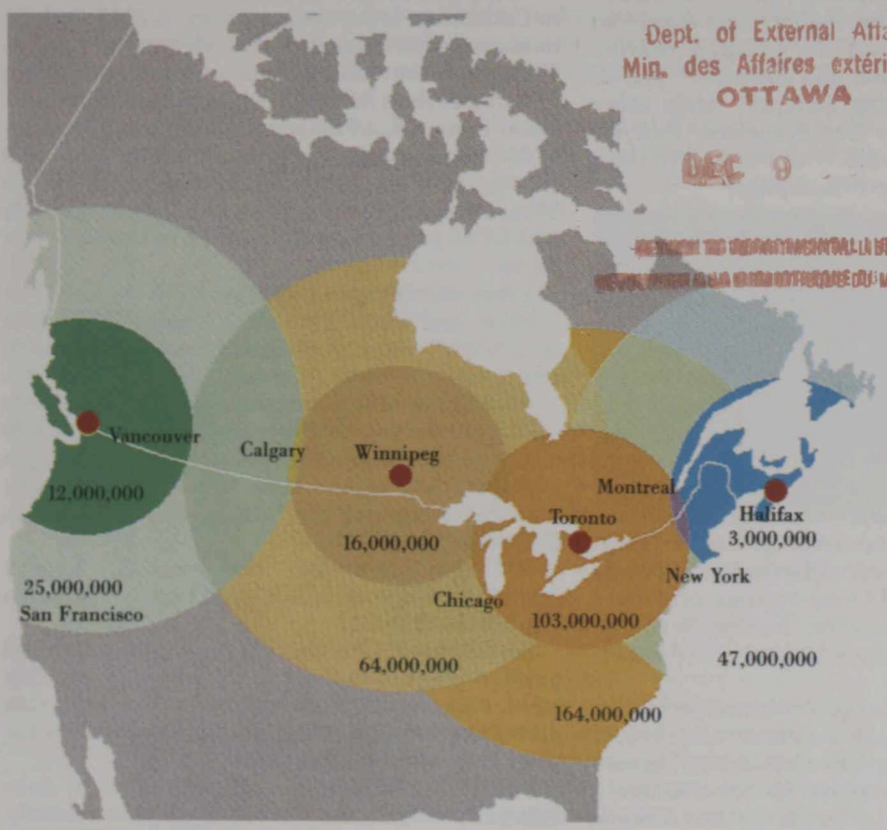
Canadian High Commissioner

Canada offers UK investors access to all North America

In the past two years, Toyota, Suzuki, Hyundai, American Motors and General Motors have committed $4.3 billion to investment in Canada. The objective has been the same in each case — not only to take advantage of a strong and expanding Canadian market but also to exploit an adjacent and accessible US market from a lower-cost Canadian base.

With the seventh largest economy in the western world, Canada also offers rich opportunities for UK companies seeking to expand their operations overseas. It is a significant market in its own right, but increasingly, as free-trade talks continue with the US, it is becoming an important base from which UK companies can reach all of North America. As such, it offers direct access to a market of close to 300 million people — a market that is one of the largest, and certainly the richest, in the world.

Last year, Canada's GNP reached $453 billion, an increase of nearly 4.5% over 1984, making the Canadian economy the seventh largest in the western world. This year, that position will be further strengthened as the Canadian economy continues to expand: by OECD estimates, Canada will have a GNP growth rate in 1986 which will be second only to that of Japan.



Small circles show population reached by truck in one day, large circles — 2 days.

Canada has a thriving free-market economy that is broad-based and diverse. It is recognised as the western world's richest resource base, but that, of course, is only part of the picture. Manufacturing accounts for more than 35% of the country's domestic output — and fully 75% of its exports are manufactured goods or end products.

Furthermore, the rate of growth in manufacturing has been averaging 5.8% per year since the end of the 1982 recession. At that time, Canada's real domestic product in manufacturing was $23.1 billion, but by the end of 1985, it was more than $27.4 billion.

Meanwhile, the level of manufacturing investment has kept pace — especially foreign investment within the last two years. Some 420 of the Fortune 500 companies now have active operations in Canada. Out of 720 British-controlled companies in the Financial Times 1000, 208 currently have subsidiaries in Canada. And of course, investment from the UK has been moving ahead in leaps and bounds. Last year, 92 new UK investments were made in Canada in the amount of some $1.8 billion. This was part of a surge of foreign investment that totalled $12.3 billion.

Fourth richest country

The reasons for UK investor interest in Canada are numerous and varied, but to a large extent they stem from the fact that Canada is able to combine a North American free enterprise economy with a British-style system of government and law. The result is that economically the country is energetic and dynamic and open to change, while politically it is stable and democratic and predictably consistent.

This combination has allowed Canada to enjoy both a high level of social services and a high standard of living. GNP per capita makes Canada the fourth richest country in the world and a valuable market in its own right.

Disposable income is high, and has been growing at an average rate of 9.8% per year since 1980, so that by 1984 it had reached an average of $26 367 per worker.

Eighty-two per cent of Canadian households now own cars (a higher percentage than in Japan, France, Germany or the UK); 99% own refrigerators and radios; 98% televisions and telephones; 77% washing machines; and 24% video recorders. In addition, some 60% of Canadian families own their own homes.

Access to all North American market

But what really makes Canada appealing to UK investors is the access that it offers to the entire North American market.

Canada is one of the world's leading trading nations; in fact, among the OECD summit countries, only West Germany is more export-oriented.

More than three million Canadian jobs depend upon exports — nearly one quarter of the country's

total work force. In the manufacturing sector alone, upwards of 1.2 million people are employed directly or indirectly in export-related activities.

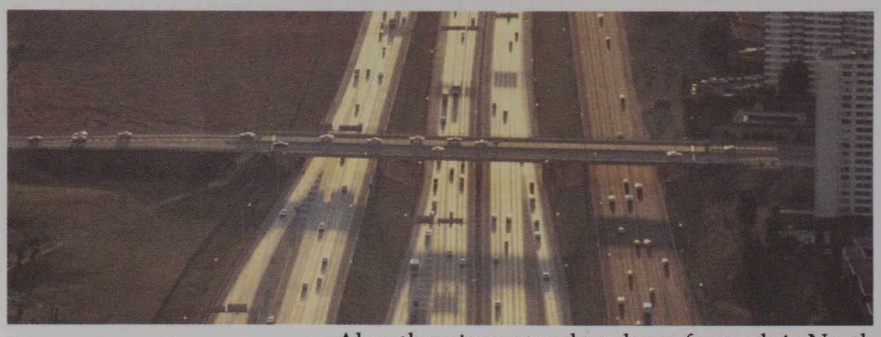
What's more, the importance of exports to Canada is growing. Between 1975 and 1985, the level of Canadian exports increased at an average annual rate of 13.6%, so that by 1985 exports accounted for 27% of the country's GNP.

Canada maintains active trade relations with all major industrialised nations, so these exports are shipped worldwide. However, by far the biggest portion are sent south of the border to the United States.

In 1985, Canada sold more than $91 billion of goods and services to the United States. That is more than Japan sold, and it is more than the UK, Germany and France sold *combined.*

Canada and the US have the largest trading partnership in the world. The two countries do more than $160 billion in trade each year (no other countries come close to that total), so that each one is the other's best customer.

It is not hard to see why North America is rapidly becoming what in effect is a single market. The larger Canadian cities and towns are all within 100 miles or so of the Canada-US border, so that major American centres — including New York, Chicago, Seattle, Minneapolis, Philadelphia and Boston — are all within one day's trucking distance; while other important US centres — San Francisco, Denver, Kansas City and Nashville — are only two days away. (See diagram on previous page)



A motorway on the outskirts of Toronto.

Also, there is a natural tendency for trade in North America to flow north-south within regional markets that ignore the border. The main reasons: proximity of suppliers and customers, similar business practices, a common business language, and shared time zones and climates.

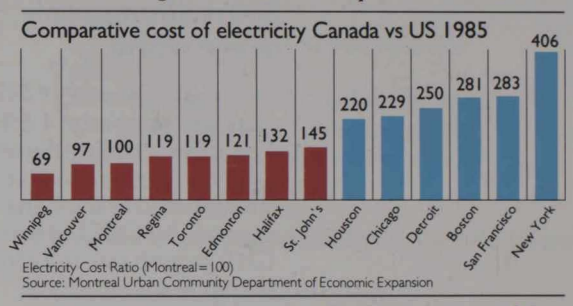
In addition, trade between Canada and the US has been enhanced by such long-standing — and liberal — trade agreements as the Auto Pact and the Defence Production Sharing Agreement (which effectively eliminate the border as far as the car and defence industries are concerned).

According to GATT, some 80% of all Canadian exports will be entering the US duty-free by 1987, and a further 10% will be carrying duty of less than 5%. That situation will prevail as a result of the Tokyo Round of negotiations concluded in 1979.

However, the chances are that duties and tariffs could be substantially lower than even the GATT levels already set, as a result of the free-trade negotiations now taking place between Canada and the US. It is too early to forecast what the outcome of these negotiations will be; but a further liberalising of trade is very much part of the philosophy of both governments.

Canada attracts major corporations

Many international companies have already taken advantage of Canada's premium position in the North American market. Among them: Toyota, Siemens, Ikea, ICI, Unilever, Volvo, Pechiney and Olivetti. In addition, several US firms (Westinghouse, United Technologies and Litton Industries, for example) have set up specialised operations in Canada and given them world product mandates.



Among the many benefits that have attracted them to Canada are lower energy prices. A 1985 study of industrial users showed that electricity rates in Toronto, Montreal and Vancouver were more than 75% *lower* than in New York, and more than 50% lower than in San Francisco, Chicago or Houston.

At the same time, the price of natural gas is also substantially lower in Canada than in the US. In 1984, the average price for industrial users in Canada was $3.62 per million BTU, while in the US it was $5.96.

Large consumers of energy (such as ENI, Air Liquide and Gould Inc) have located in Canada specifically to take advantage of these lower costs — and the greater security of supply.

A further benefit is that labour costs in Canada are significantly lower than those in the US, particularly when the industrial heartlands are compared. As an example, in August 1985 the average hourly manufacturing wage in Ontario was $11.59 and in Quebec it was $10.91.

In sharp contrast, the average hourly manufacturing wage in Michigan was $17.04 and in Ohio it was $15.28.

Furthermore, Canada's universal health care and pension plans reduce the cost of benefits paid by employers, so that the differences in labour costs are even greater than a straightforward comparison of wage rates would indicate.

Finally, construction costs can also be substantially lower. As *Forbes* magazine recently reported, TIE/communications of Shelton, Connecticut, a manufacturer of telephone systems, can serve as a fitting example. It recently constructed two similar plants — one in Quebec and the other in New Jersey.

The plant in Quebec was completed ahead of schedule — at a cost that was a full 30% below the cost of the plant in New Jersey. The main reasons: competition among Quebec builders plus some generous grants from the Quebec and Canadian governments.

Canada's financial system — competitive, active and growing

The Canadian financial system is highly sophisticated and internationally competitive, offering a full range of services to potential UK investors accessible in Canada or through London offices of Canadian firms. The industry is traditionally organised into four major subsectors — chartered banks, trust and mortgage loan companies, insurance companies and securities firms, the first three respectively accounting for 40%, 30% and 12% of total assets.

Among the chartered banks, the top six control assets of nearly $400 billion, and the top three are among the 50 largest in the world. They are the major source of external debt financing and, while a primary source of short-term working capital, they also engage directly in leasing and extend a range of long-term loans (including plant expansion, export financing, etc).

The centralised structure of the banking system means not only accessibility to services across Canada but also services around the world: the 12 domestic chartered banks offer a variety of services (savings and chequing accounts, deposit receipts, personal and commercial loans, bankers' acceptances, currency trading and market information, etc.) at over 7400 branches throughout Canada and at some 300 offices in over 40 countries abroad. They additionally have correspondent relationships with 5000 banks world wide.

The 'big six' (Royal Bank of Canada, Bank of Montreal, Canadian Imperial Bank of Commerce, Bank of Nova Scotia, Toronto Dominion and National Bank of Canada — all with London offices) control over 95% of both assets and deposits of the domestic banks.

Their strength and stability has been evidenced in their 17.3% growth in aggregate earnings over the last reporting year.

Also ready to serve foreign investors are major foreign banks which provide in their Canadian offices essentially the same range of services as domestic Canadian banks: loans, deposits and commercial services. Since ownership restrictions were removed on foreign banks in 1980, their number has increased to 58 and their market share of the Canadian banking industry has increased to 16%.

Trust and mortgage companies are deposit taking institutions similar to the chartered banks but not normally providing a full range of commercial banking services. They generally invest funds in residential and shorter term mortgages on a wide variety of commercial and revenue-producing properties. Businesses may finance their operations through these institutions either on a term basis or on mortage security.

Although the primary role of insurance companies is risk underwriting, insurance companies can deploy premium income in business financing for intermediate (5-10 years) or long term (over 10 years) requirements. They can for example be a competitive source of financing for longer term requirements on real estate transactions.

As in the UK, Canadian securities firms or investment dealers join those with capital with those in need of it. This process can be accomplished by underwriting new public security issues or offering new issues to the public on a 'best effort' or agency basis; or by placing corporate securities with private individuals or corporations. Ninety-five per cent of all securities transactions (more than $700 billion) are handled by members of the Investment Dealers Association of Canada, the national self-regulating body. On a per capita basis, Canadians raise twice as much capital as Americans.

There are five stock exchanges, located in Toronto, Montreal, Vancouver, Calgary and Winnipeg. Listing a corporate stock on a Canadian exchange is usually quite simple. Each new listing must meet certain minimum requirements, similar to SEC requirements.

With over 80% of the dollar volume in Canada, the Toronto Stock Exchange is the country's largest. From 1982 to mid 1985, it out-performed both the London and New York exchanges.

Canada's bond market is also well developed with major corporations regularly raising capital by issuing bonds and debentures. Securities dealers usually handle the underwriting and distribution of these securities. An 'over the counter' secondary market ensures liquidity.

Sales finance companies provide a wide range of services to both consumer and commercial clients. Consumer loans generally cover such items as consolidation of personal debts, purchase of cars and household appliances, and vacations. On the commercial side, sales finance companies handle vehicle fleet leasing or equipment financing.

Credit unions are cooperative associations which primarily accept deposits and offer mortgage and personal loans. Many provide loans to small business, chequing facilities, term deposits, travellers' cheques and lines of credit.

Venture capital companies generally make investments in the range of $500 000 to $5 000 000. They offer assistance and management advice to those

Assets of the 'big six'.

A major Canadian bank's trading room in London.

businesses with which they have invested. Canada leads West Germany, France and Japan in availability of risk capital.

Government sources: The Federal Business Development Bank is a Crown corporation which helps most types of business in Canada, particularly those of small to medium size. The FBDB offers three principal services: (1) financial services (loans, loan guarantees, and financial planning with special attention to exporting); (2) investment banking; (3) management services such as counselling and training.

Export Development Corporation is a Crown corporation whose purpose is to develop Canada's export trade. It does so by offering services in three broad categories: insurance, guarantees and export financing. Any business in Canada can use EDC's services if: (1) there is an export sale; (2) the transaction is economically sound; (3) the buyer is credit worthy; and (4) the goods or services have a Canadian content of at least 60%.

Each province also has its own financial agency which provides financial assistance in the form of a direct loan guarantee to companies in that province. These agencies complement rather than compete with other financial institutions.

Canada has no foreign exchange controls: all profits, dividends or royalties can be remitted at will.

For more specific information on sources of financing, call Bob Fournier at the Canadian High Commission on 01-629 9492, extension 681.

Conquering the world from Oromocto, New Brunswick

One company that has found Canada to be an ideal base from which to conquer the world is Process Technology Limited, a manufacturer of semiconductor products and processing equipment. Last year, it won Canada's highest award for exports, and along the way picked up national awards for both entrepreneurship and for marketing.

Oromocto, New Brunswick, seems an unlikely base from which to tackle international markets in a competitive high-technology field. But Process Technology Limited has found it to be anything but a handicap.

George Jenkins (left), receiving Canada Award for Excellence from federal minister André Bissonnette.

Since the company was founded in 1982, its sales — and its exports — have soared. Revenues from sales were $634 000 during the first year, but had increased to $7.4 million by the third year.

Meanwhile, exports have increased so that they now represent some 95 per cent of the firm's sales volume, and include sales to most of the major semiconductor manufacturers such as Motorola, Intel, National Semiconductor, Signetics, Bendix, Mitel, Perkin Elmer, Monsanto, IBM, Bell Labs, Fairchild, Xerox, Ford Aerospace, Northern Telecom and AT&T.

In addition to making semiconductor sales throughout the United States and Europe, the company has sold deposition systems to customers in Japan and Israel.

The result is that the company last year won Canada's highest export distinction — a Canada Export Award. In addition, it won two Canada Awards for Excellence — a gold for entrepreneurship and a silver for marketing.

Detailed marketing plan

To develop high-tech business in a remote section of New Brunswick, a detailed marketing plan was prepared at the outset. A vice president in charge of marketing was hired to provide the technical knowledge essential for sales, which were targeted to major semiconductor manufacturers rather than minor users of process equipment.

Furthermore, to provide rapid service for product delivery, an aircraft was purchased to connect with US airlines and their major markets.

The company also employed marketing representatives in several countries, including five serving the US market, one in Britain, one in the Netherlands and one in Japan.

First in World

All products manufactured by Process Technology are new entries to the Canadian export and domestic markets.

The company's initial licence from Bell Northern Research was to manufacture a superior low-pressure chemical vapour deposition (LPCVD) system for depositing thin films on silicon wafers that had been developed by George Jenkins, founder of Process Technology, while employed with Bell Northern and Northern Telecom.

The generation of layers on silicon and gallium arsenide wafers is essential in the fabrication of integrated circuits.

Process Technology developed the first com-

PTL employee working on gas panels in LPCVD system.

mercially viable boron nitride process in the world. This system is now used to manufacture X-ray masks.

The company also pioneered processes to deposit thin films on 125-millimetre and 150-millimetre wafers, and has successfully marketed the equipment for these processes.

Wafer service for 200-millimetre wafers is also being offered. This work requires the continual modification of quartzware systems to provide efficient delivery of reactant gases to the wafer surface. In addition, research and development work is proceeding on the gas panels and control systems to improve delivery of gases to the process tube. Much of this work has led to improvements already incorporated in the firm's marketed systems.

In 1983, Process Technology also developed a robotic wafer loading system with soft-landing capability. This system is now in commercial production.

Products interrelated

The company's high-technology semiconductor products and processing equipment are considered to be among the best in the world. They include low-pressure and atmospheric gas panels; source cabinets; gas cabinets; specialised quartzware for use in LPCVD systems; complete systems for the deposition of thin films on silicon wafers; and silicon wafers pre-coated with thin films.

All the elements in the product line are interrelated and are often sold together as a total system. Systems and processes are also custom designed for special process applications.

Vickers reaps the benefit of locating in Canada

Among the UK companies that have run up successes in Canada is Vickers PLC. It bought Vickers Instruments Canada Inc (VICI) at the beginning of 1985 from the US corporation, Bausch & Lomb.

When VICI was offered for sale, Vickers Instruments (UK) identified that the scanning electron microscope manufactured and developed be VICI directly complemented its own newly developed line width measurement systems, since both were aimed at the same semiconductor market sector. VICI, at that time, had already made a significant impact on the North American semiconductor market despite its limited sales resource, while Vickers Instruments was still endeavouring to break in.

Strategically, therefore, the acquisition provided a key opportunity for Vickers Instruments to promote its own product through the contacts already made by VICI; in turn, its worldwide sales and marketing structure would be able to expose the VICI product to previously unexplored marketplaces.

Here's how Allan Dickinson, president of Vickers Instruments North American operations describes his company's experience in Canada.

"With the rapid growth the company is experiencing, it is becoming apparent that a larger facility is essential. Consequently, plans are in hand to extend the existing plant by some 50%.

Ottawa has long been titled 'Silicon Valley of the North', because of the number of high-tech industries located there. As a result, there is an abundant supply of high-calibre, technically qualified personnel in the vicinity. This avoids costly recruiting and relocation expenses when new employees are required. Also, the research and development department is able to keep up-to-date with the changing facets of technology.

In general, Canada has a great deal to offer an employer, particularly when compared to its neighbour, the US. Wage and salary expectations are considerably lower than in the high-tech areas of the US, and property prices remain way below the footage values of the California/Massachusetts high-tech regions.

Canada also offers state education and health care, thus adhering to a social structure comparable to that of the UK.

Ottawa itself is the headquarters of the National Research Council of Canada, an organisation that actively encourages development and research through the awarding of specific grants — a factor that greatly contributed to the initial success of VICI.

The Canadian government is a strong advocate of growth and development, and so provides financial backing to suitable Canadian-based businesses. For example, partial grants are available to assist in the promotion of Canadian products abroad.

As well as providing assistance on the home front, the Canadian government offers financial support to foreign organisations expanding into Canada — which highlights the importance that the country places on foreign investment.

However, the greatest benefit to companies, particularly those of UK origin, is firstly, the unique relationships Canada enjoys with both the UK and the US; and secondly, the fact that the Canadian way of life has many similarities to that of the UK.

Consequently, UK companies can relocate key management personnel without the burden of educating such employees in a new way of life.

From an administrative angle, it is far easier for a company to set up a Canadian facility than to open a US division, since the staunch backing of the Canadian government — both through financial loans and immigration practices — is so strong in support of such ventures.

Also, import/export procedures from Canada to the US are far more favourable than those experienced directly from the UK.

Therefore, simply by virtue of its proximity, Canada provides a gateway for foreign investors to reap the benefits of the North American marketplace without incurring the expense associated with an American operation."

Canada provides a number of gateways for investors.

Canada's aerospace industry now fifth largest in world

Various aerospace companies displayed Canada's advanced state-of-the-art metal fabrication and integrated electronic circuitry at Farnborough.

Canada's aerospace industry — with annual sales of $5 billion (expected to double by the end of this decade) — is the fifth largest in the world. It is also truly international. With a small domestic market, the industry has been forced to look overseas for new markets that would allow it to maintain its rate of growth. The result: It now exports a higher percentage — more than 80% — of its output than any of its competitors.

In early September, the industry's expertise was on display at Farnborough in the international trade exhibition — Farnborough International 86 — which accompanied this year's air show.

Altogether, 17 Canadian aerospace companies, under the auspices of the Aerospace Industries Association of Canada, exhibited at the show, representing the most important sectors of the Canadian industry. They ranged from fixed wing airframe manufacturers to aircraft engine builders, and from avionic and electronic firms to specialised metal machining companies.

They covered both the civil and the defence markets, and they included the nation's top three aerospace concerns — de Havilland, Pratt & Whitney and Canadair.

Worldwide sales

De Havilland — recently taken over by Boeing of Canada Ltd — is a world leader in the field of short takeoff and landing (STOL) and other commuter aircraft. de Havilland planes now fly in more than 90 countries.

Its Dash 7 is the only aircraft that conforms to all the noise and landing requirements of the new STOL facilities being built in London's docklands.

De Havilland also manufactures the Dash 8. It too is aimed at the commuter market and has recorded worldwide sales.

At Farnborough, de Havilland announced that Hanson Aviation Inc of Salisbury, Maryland, has placed an order for six de Havilland Dash 8 aircraft and taken an option on 18 more. That order brings the total number of orders to 180, since the twin turbo prop commuter aircraft was introduced into service in 1984. If all options are turned into firm orders, the number of Dash 8 turboprops sold will reach 200.

In addition to the sale, de Havilland announced at Farnborough that it has signed an agreement with Short Brothers of Belfast, under which the two parties will jointly study the requirement for a new generation of transport aircraft by regional airlines and commercial operators around the world.

Leading producer of engines

The Dash 8 is powered by two PW100 turboprops designed and manufactured by Pratt & Whitney Canada. The Quebec-based company has developed a worldwide reputation as the leading producer of small gas turbine engines.

It has annual sales of close to $700 million; employs more than 7500 people; and its engines power a wide variety of aircraft in 144 countries (including the new BAE advanced turboprop airplane which was launched at Farnborough).

Pratt and Whitney used the Farnborough air show to unveil the PW300 for turbo fan business aircraft in the 1990s, as well as the PW901A which has been selected for the Boeing 747-400.

These PW300 series of engines will be used to power corporate aircraft in the medium-sized range.

Among the PW300 engines' selling points will be the absence of a gear box which greatly reduces the weight and complexity of the engine.

During the Farnborough International 86 air show the Duke of Edinburgh, Canadian High Commissioner Roy McMurtry, and officials inspect a model of the new London Docklands STOLport. The de Havilland Dash 7 is to date the only airliner meeting all of the landing requirements.

Dash 8 showing the livery of an airline in eastern Canada.

Canadair jets undergoing final assembly in Montreal just prior to delivery.

Role being extended

The medium-sized range of corporate aircraft for which the PW300 is designed is considered to be one of the most promising sectors of the market. Right in the centre of that sector is the long-range Challenger business jet, manufactured by Canadair.

More than 100 Challengers have been delivered to corporate customers, and the aircraft's role is now being extended to include such functions as flight inspection and calibration, air ambulance and electronic warfare training.

At Farnborough Canadair also launched an improved CL-215T multi-purpose amphibian, the rugged twin-engine aircraft designed for a variety of roles, including forest fire-fighting, spraying, maritime surveillance, and search and rescue. In addition it manufactures a number of remotely piloted vehicles, which have a surveillance and target-acquisition role.(see article on page 12).

Canadair was recently privatised by the Canadian government. In a deal announced in August and closed in October, the government sold Canadair to Bombardier Inc of Montreal.

Specialised expertise

Canada's aerospace expertise is not confined to frame manufacturing. The industry also includes dozens of companies that have developed state of the art, expertise in selected areas. Among those participating at Farnborough were: Atlantis Aerospace; Canadian Astronautics; Canadian Marconi; Cercast; Computing Devices Co; Diemaster Tool; Fell-Fab International; Field Aviation; Garrett Canada; Haley Industries; Indal Technologies; Litton Systems Canada; Micronav and Reed Stenhouse.

These companies work 'behind the scenes', producing high quality systems, sub-systems, components and accessories. Examples of their products include landing gear and actuators, flat panel displays, cabin heaters, fuel controls, radar tracking components and navaids. Support activities include precision machining, designing custom aircraft interiors and providing repair and overhaul capabilities.

At Farnborough, Micronav Ltd of Sydney, Nova Scotia, signed a licensing agreement with Ferranti plc to manufacture and market Micronav MLS equipment in the UK, European Community and certain other regions, (see article on page 10).

In addition CDC, Fathom Oceanology and Plessey Marine (UK) announced an agreement to produce a dipping sonar for Naval application.

About 60 000 people employed

Altogether, the industry employs about 60 000 people in communities across Canada. And about 20 per cent of all research and development in Canada's manufacturing sector is conducted by companies in the aerospace industry.

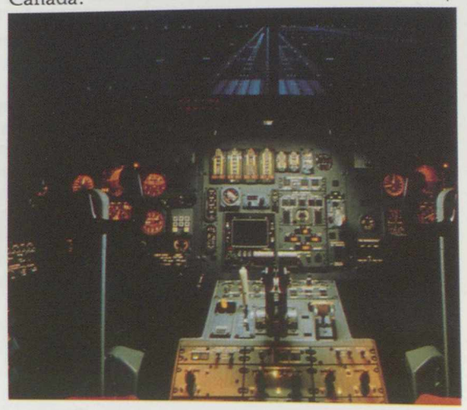
Canada is the leader in the production of small gas turbine aircraft engines with Pratt & Whitney Canada holding a majority of the world market.

From 1975 to 1985, the industry invested some $2 billion in research and development, with the Canadian government contributing (in the form of repayable loans and grants) about 30 per cent of that total.

In addition, Canadian aerospace companies frequently work in cooperation with their overseas counterparts. Pratt & Whitney, for example, has joined up with Motoren und Turbinen Union (MTU) of West Germany to help develop its PW300 engine. The partnership was set up to share some of the financial risk: Developing the PW300 will cost an estimated $500 million.

Pratt & Whitney is also working with Rolls Royce, and has signed an agreement to manufacture in Canada Rolls Royce's RTM 322 helicopter engines.

Canadian aerospace companies have also invested overseas. For example, Comdev and Leigh Instruments have both established themselves in the UK. In return, several UK companies — attracted by the Canadian market and by the direct access that Canada offers to all of North America — have crossed the Atlantic and invested in Canada. Among the subsidiaries they have established: Canadian Marconi, Dowty Canada and more recently MEL Canada.



Canada is a leader in the development and production of flight simulators for both commercial and military use.

Canada still taking the

There is a story that is told in Canada about the young visitor from the UK who was planning his first visit. He would be landing in Toronto, but his parents in London were worried that he would not be able to find his way around on his own. They wired a relative in Vancouver and asked her to meet his plane. A day later, they received a wire back, saying, 'You meet him. You're nearer.'

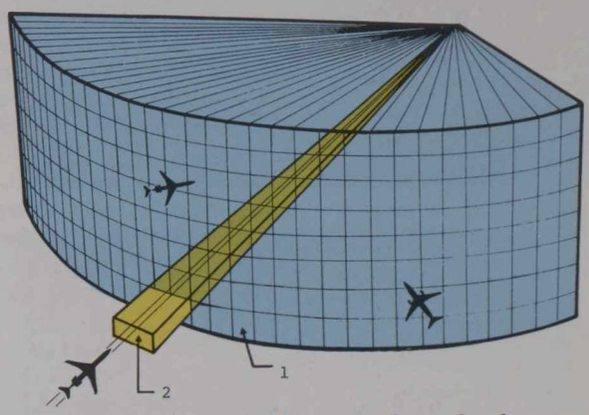
Unless they have visited Canada, few people in the UK realise just how big the country is. They may know that it is the second biggest country in the world. But they don't have a *feel* for what that really means.

Canadians do. They are also aware that with a population of 25 million, they live in one of the least populated countries in the world.

Because of this, Canada has always regarded transportation and communications as being extremely important in terms of linking the various parts of the country together. For this reason, it has developed a world reputation as a leader in these fields.

In the past, *Canada Today* has reported on a number of Canadian developments in transportation and communications. In this issue, we report on some of the latest ones — to give an indication of the range of activities in which Canada is still taking the lead.

Microwave landing system promises safer flights



Range comparison of microwave and instrument landing systems
1. MLS proportional coverage
2. ILS proportional coverage

Micronav Limited of Sydney, Nova Scotia, is the Canadian entry in the upcoming multi-billion-dollar world market for microwave landing system (MLS) airport equipment.

MLS has been adopted by the International Civil Aviation Organisation as the future electronic guidance aid to bring aircraft to safe landings in bad weather. Over the next ten years, all of the world's airports will replace their earlier-generation instrument landing system (ILS) guidance equipment with the new MLS units.

The microwave signals offer much higher accuracy than today's ILS, and provide a number of other major benefits to pilots, who will use special receivers in their aircraft.

Canada is in the forefront of the international conversion to MLS. The Department of Transport has stated its intention to install over 150 systems at airports across Canada. The first of these will be installed next year at the Toronto Island Airport, to guide commuter de Havilland Dash-7 and Dash-8 STOL aircraft.

The new MLS, using the latest electronic technology and linked to computers aboard aircraft, will greatly extend the use of airspace around airports by establishing several approach paths for landing instead of a single ILS path.

The range of the new system is 70 nautical miles wide (to an altitude of more than 6000 metres), out to a distance of 20 nautical miles. This compares with a range of 27 nautical miles for the ILS.

The basic MLS elements are an approach azimuth antenna, an approach elevation antenna and distance measuring equipment. They provide information on the angle of an aircraft's elevation with the runway, as well as continuous data on distance from touchdown.

This information is transmitted to computers on the airplane, allowing the pilot to use curved, segmented and high-angle approaches to landing, in contrast to the low angle, straight-in approach of the ILS.

Another benefit is that below 60 metres, ILS signals are subject to ghost signals reflected from buildings or other large objects, whereas the microwave signal is not affected by geography and it cannot be bent by an obstruction. It is also less sensitive to environmental conditions, which can disturb ILS signals.

A test MLS unit has been installed at Ottawa International Airport to gain technical and operating experience. An MLS system is also operating at Jasper, Alberta, to provide accurate aircraft guidance in mountainous terrain. In addition, five private MLS installations are under consideration by companies and provincial governments for use in remote airports.

Installation of the units in Canada is being undertaken along with the federal government's new radar modernisation program, which will eventually lead to the pre-programming of an aircraft's flight from take-off to landing with many stages of the flight under the supervision of computers.

lead in transportation

Skytrain leads world in rapid transit

This summer, the world came to Vancouver to attend Expo 86, and many of the millions of visitors arrived on one of the world's largest and most advanced, fully automated urban transit systems — Vancouver's new Skytrain.

The Canadian-developed and manufactured Skytrain system was completed on schedule (in January) and on budget ($845 million). The light rapid transit system runs for 13 miles from Vancouver's central core to the suburbs. Skytrain's gleaming white, blue and red cars travel underground through Vancouver's downtown, then rise for the remainder of the line on an elevated structure.

The system is connected with trolley buses and boats in Vancouver, and the neighbouring municipalities of Burnaby and New Westminster. The resulting integration means a 30—50 per cent reduction in travelling time for most of Skytrain's transit riders.

Designed by the Urban Transit Development Corporation of Ontario (now owned by Lavalin Inc in Montreal), Vancouver's new transit system features a major technological innovation, the linear induction motor (LIM). The LIM is essentially a six-feet-long electric motor stretched out flat.

An alternating electric current surges through copper wire in the LIM and produces a complementary current in a metal plate alongside the rails. The two currents are not in step — one is constantly behind the other — so two magnetic fields attract each other and try to join together. However, they never quite make it. Instead, the motor slides along above the steel plate and pulls the train with it.

The LIM needs no gear or transmission, because it acts independently of friction between the train wheels and rails. For limited braking, the motor turns into a generator absorbing the momentum of the vehicle until the mechanical braking system kicks in (below 6 miles per hour). There is also an emergency magnetic brake, which clamps onto the running rails.

Skytrain's steerable axle-trucks allow wheels to follow rails on curves rather than scraping against them. This reduces friction, noise and wear on the wheels. The steerable truck feature also extends the life of curved rails by an estimated 10 to 20 times, generating a considerable cost saving.

Skytrain also offers fully automatic, driverless train control. Yet the system's total cost stacks up well in comparison with others in North America. In fact, on a cost-per-kilometre basis, Skytrain is the cheapest transportation system in North America.

All-terrain vehicles win export orders

For the past nine months, Canadian Foremost Limited of Calgary has been supplying the Union of Soviet Socialist Republics with 50 of its special heavy-duty vehicles.

The sale, worth more than $25 million, is the largest contract obtained by the Canadian-owned manufacturing company, but it is just one of several dozen that the company has won in recent years.

One of the Foremost's divisions, the Transportation Equipment Group, specialises in the design and manufacture of low-ground-bearing-pressure wheeled and tracked all-terrain vehicles. The vehicle-line payload capacities range from 3.6 to 64 tonnes.

Equipped with all-wheel drive and articulated steering, Foremost's Terra-tyred, low-ground-bearing-pressure vehicles are designed for maximum mobility in marginal terrain conditions. Its specially designed low-pressure tyres evenly distribute loads over a large area, thus improving vehicle traction and effectively increasing vehicle mobility and gradeability.

The wheeled vehicles can be fitted with a wide variety of auxiliary equipment to meet special job requirements. Supplied with a deck, they can become versatile logistical support units, able to transport loads weighing up to 64 tonnes across rough terrain.

The wide flexible tracks on the tracked vehicles substantially reduce ground bearing pressure and provide greater traction, allowing them to transport heavy equipment, supplies and personnel across the softest terrain.

Foremost all-terrain vehicles are used by many industries for a wide range of functions, including pipeline and powerline construction, geophysical exploration, mining and construction, heavy oilfield hauling and logistical support units for many resource development projects in remote areas.

In 1985, only about 20 per cent of the company's sales were in Canada. The vehicles have gained international recognition and are sold for use in many countries and regions around the world, including the US, Southeast Asia, South America, the Soviet Union, Antarctica, Mexico and the Middle East.

Delta 100 all-terrain vehicle.

Mosaic

Economy

Canada moves up to sixth in competitiveness ranking
According to the European Management Forum, Canada's economic competitiveness improved to sixth among 22 countries, one notch higher than last year.

'This resource-rich country – with a huge, affluent and accessible market at its doorstep – harbours great potential,' the Geneva-based private economic research group said in its annual world competitiveness report.

Two years ago, Canada placed eleventh in the rankings, but was upgraded to seventh last year after the group said the country had improved its ability to exploit its potential.

Canada and Japan were the only countries in the top 10 to improve their competitive rankings from the 1985 report.

Business

Marks and Spencer buys rest of subsidiary
Marks and Spencer has made a $111 million offer for all the shares of the company's Canadian subsidiary that it does not own. The British company has always wanted 100% ownership of its Canadian operation.

After recent talks with Investment Canada, the restrictions on ownership were lifted. There are almost 4.6 million shares outstanding, and options for a further 84 000 shares.

Instant market terminal aids prospective buyers
Prospective buyers visiting Canadian exhibits at international trade fairs can now obtain up-to-the-minute detailed information on all aspects of the relevant Canadian industry, including essential details about a specific company, at the touch of a selector button. The new computer terminal, when installed at national exhibits, gives exporters a significant advantage in the quest for new markets.

The terminal, developed by Avcor Info Display Systems of Toronto, integrates microcomputer technology with Telidon, the world's most advanced videotex information retrieval system. Each unit consists of a full colour video display, a standard computer keyboard, a high quality printer and an electronic link to a Telidon terminal.

The interested buyer accesses the stored data through the keyboard and information flashes on the screen in up to five languages. By pressing another button, the buyer receives instant high quality print-outs of the text on the screen. If additional details about a product or source are required, the computer retrieves the information through the Telidon link and prints out the data in letter format minutes later.

International

Canada willing to place moratorium on African debt
Canada is willing to place a moratorium on payments of $750 million of official Development Assistance debt owed by Sub-Saharan African countries, former External Relations Minister Monique Vezina announced recently in a speech at the United Nations.

Some $250 million in payments on that debt of $750 million due between now and the year 2000, would be delayed under the proposal, Vezina outlined to a special UN session on Africa.

The moratorium, which would be negotiated in renewable five-year segments, would give African countries 'the room to manoeuvre that they need to put their economies back on a solid foundation.' To be eligible, the countries concerned would need to implement an economic programme of structural adjustment. The minister encouraged other donor countries to join in the debt moratorium.

Vezina's address to the Special General Assembly Session on the critical economy situation in Africa outlined an extensive plan of action to provide debt relief and aid to the region near the Sahara. She announced that Canadian voluntary organizations will participate in 2000 small-scale projects in the region before the end of 1987.

Canada hopes to see a new mechanism established for multilateral aid, which would see international funds go directly to small villages, producers and farms, Vezina said. Ottawa has donated $20 million for this purpose.

Canada pledges aid for Ireland
Canada has agreed to contribute up to $10 million over ten years to Northern Ireland and the Republic of Ireland for economic and social development programmes, Prime Minister Brian Mulroney has announced.

Mulroney said the contribution to the International Fund for Ireland, set up after last November's Anglo-Irish agreement, is being made at the request of Irish Prime Minister Garret Fitzgerald and British Prime Minister Margaret Thatcher.

The contribution will include loan guarantees and cash raised on a matching basis with the private sector.

Medicine

Painless insulin injector available for diabetics
The Preci-Jet 50, a Canadian-made power injector that permits someone to take insulin without a needle, is now available for the country's estimated 100 000 diabetics, some of whom require four or five insulin injections daily.

Following years of research and testing at a Montreal hospital, the power injector is being manufactured by Advanced Medical Technologies Inc of Charlottetown, Prince Edward Island. It is available for about $750.

The Preci-jet 50 delivers insulin under air pressure through a hole in the skin many times smaller than that made by a hypodermic needle. The insulin spreads over a wider area, resulting in a more rapid and even absorption.

Two important benefits to diabetics are that the injectors are painless and do not cause a build-up of scar tissue.

National Research Council develops vaccine for meningitis
A new vaccine that could eradicate bacterial meningitis among young children has been developed by researchers at the National Research Council in Ottawa. With continued success in tests on the vaccine over the next year, it is expected that the vaccine will be a viable product within ten years.

Bacterial meningitis, an infection and inflammation of the membranes that envelop the brain and spinal chord, is considered to be one of the last major childhood diseases. A vaccine for adults and older children is already available, but there is none for babies and young children who are more susceptible to the disease as they haven't developed any natural immunities. Of the 764 cases of bacterial meningitis in Canada in 1982, 510 were in children younger than four years and 258 in babies younger than a year. Further, the prognosis of the disease is very devastating and among those infected, some 5–10 per cent die while another 10–20 per cent sustain some type of brain damage.

While the number of children suffering from the disease in Canada remains relatively low, the situation is much worse in countries with lower standards of hygiene.

Technology

Waterbombers fight fires with new extinguishing foam
A Canadian company, Wormald Fire Systems, has developed a new fire extinguishing agent that enhances the forest-fire-fighting capability of Canadair's amphibious waterbomber, the CL-215, which is the only aircraft in the world specifically designed to fight forest fires.

The chemical agent, Lorcon-Silvex, is mixed with the water that is picked up by the CL-215 twin-engined aircraft through a special on-board injection system developed by Aerospatiale of France and modified by Canadair Limited of Montreal, Quebec. When the mixture is released into the air, it becomes a foamy white blanket that clings together as it falls on its target.

About 40 per cent of the foam is absorbed by trees and plants and the rest seeps down to the ground and penetrates up to 25 centimetres into the undergrowth to prevent fires from burning underneath. Little foam is vaporised and the mixture smothers much of the fire's smoke.

The mixture has been successful fighting fires in France and Spain. It has also been employed by the British Columbia forestry ministry for use on large fires.

People

BC premier decides time right to retire

Premier Bill Bennett of British Columbia says his job is done and he is quitting public life. He made the announcement at a news conference, catching even his own cabinet by surprise.

The shock came a scant three weeks after Bennett stood with Prince Charles and Princess Diana at the opening of the Expo 86 world's fair – widely viewed as a launching pad for a 1986 election campaign and a bid for a fourth successive term of office. But Bennett, insisting it is time for political renewal, said: 'The time to have changes within a party is when things are good.'

He has been succeeded as premier by Bill Vander Zalm, 52, who was sworn in on August 6. Vander Zalm also assumed the finance portfolio.

The Premier said that his decision to take over the finance portfolio reflected his determination to take a 'hands-on' approach in sharing the province's financial and economic development policy.

'I have some innovative ideas and strategies to bring about new employment for British Columbians and the operations of the Finance Ministry are very closely linked to those plans', he said.

The transfer of power ended a Bennett family dynasty that began when W A C Bennett – Bill Bennett's father and founder of the Social Credit party – led the Socreds to office in 1952.

For 30 of the past 34 years, a Bennett has been at the head of the party and government in British Columbia. The New Democratic Party held office from 1972 to 1975.

Vander Zalm, who beat 11 other candidates to win the party leadership, promised an open and honest government that will listen to the people and resolve conflicts through co-operation.

He said he will hold meetings with business, labour and community groups in every region of the province as part of his commitment to govern by consultation.

A new morality for government was a major theme in his first address as premier. He said he wants to ensure there are conditions and guidelines that 'leave no doubts whatsoever in the minds of the public as to the ethics and integrity of those who serve in public office.'

Paul Rousseau appointed Saskatchewan agent general

Paul Rousseau has been appointed agent general in London for Saskatchewan. After accepting his appointment, Rousseau resigned his seat in the Saskatchewan legislative assembly.

A former cabinet minister in the Saskatchewan government, Rousseau was first elected in the 1978 provincial general election. Born in 1929 in Fort Frances, Ontario, he completed his primary and secondary education there. He moved to Regina in 1960. He is the former president and general manager of a car dealership. He and his wife, Janine, have five daughters.

Maple Leaf Luncheon Club starts drive for members

The Maple Leaf Luncheon Club has started a new drive to increase membership. The club was founded in 1927 to foster stronger business, family and social links in the Anglo-Canadian community. Membership is extended to anyone, regardless of nationality, who has connections with Canada. Many members are associated with Canadian businesses, the Canadian High Commission and provincial houses.

Luncheon meetings are normally held on the third Tuesday of the month. Members are encouraged to invite guests. Most luncheons have been held at the Cafe Royal in Regent Street, London but venues are varied for special occasions.

Annual events include the Christmas cocktail party and the June International Day at Epsom races, when tickets are made available for the members' enclosure.

Sports

Winter Olympic tickets already on sale

More than 1.5 million tickets for the 1988 Winter Olympics in Calgary, priced between $15 and $75, went on sale September 30. Jim McGregor, co-ordinator of the ticket sales programme, says it is the first time that tickets to a Winter Olympics have been available 17 months before the sporting events begin. All sales during the first few months must be by mail order.

The Games are scheduled for February 13–28, 1988.

Culture

Shaw papers for University of Guelph

The University of Guelph in Ontario has acquired a $100 000-plus collection of recordings, books, notes and manuscripts by George Bernard Shaw.

The university also houses the archives of the Shaw Festival, the only theatre devoted solely to the work of the Dublin-born playwright, who died in England at the age of 94.

The collection belonged to the American scholar and writer, Dan Laurence, literary adviser to Shaw's estate. It includes all known recordings of Shaw's voice, about 200 photographs (many dated by Shaw), and an excellent collection of play proofs used for rehearsals, with changes in the text made by Shaw and the actors.

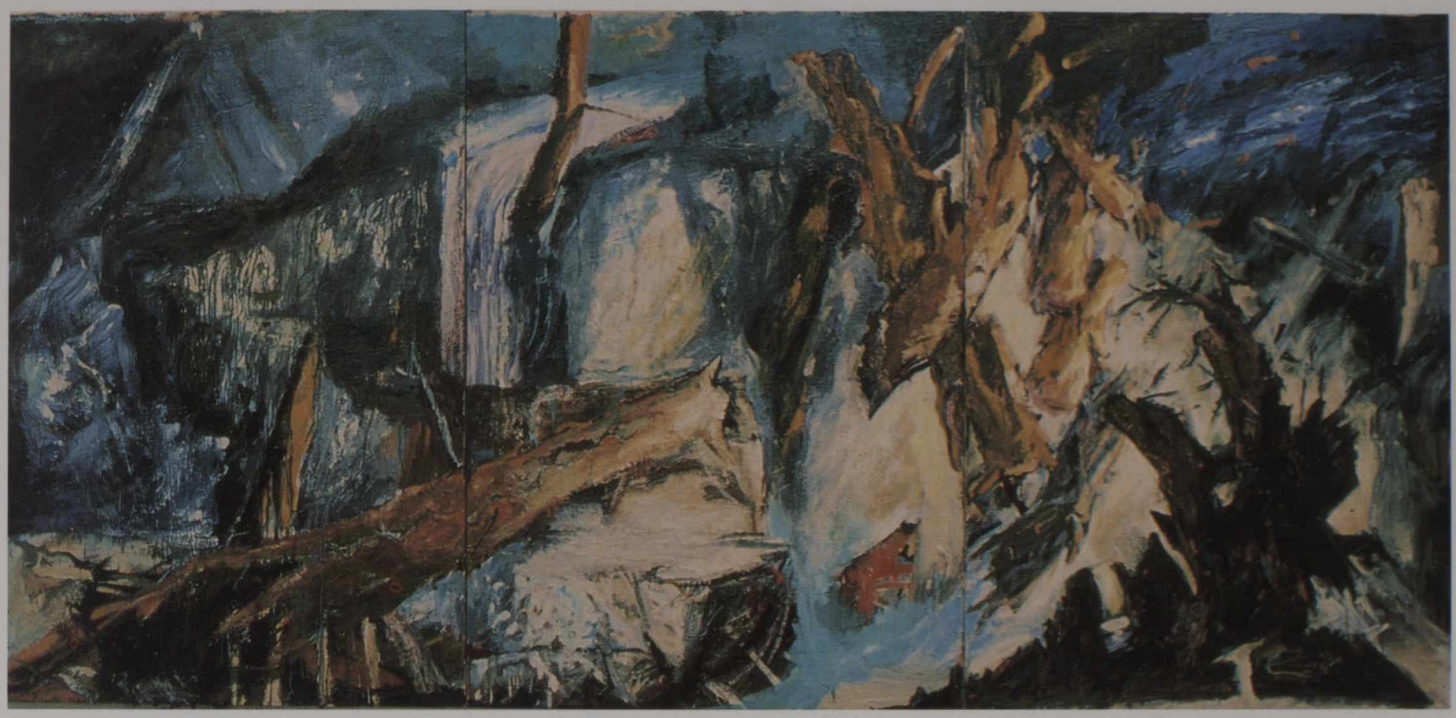
BBC 3rd programme celebrates Canadian Music Year

In the first week of September, coinciding with the visit to the UK by the Toronto Symphony, the BBC broadcast 22 programmes, either by Canadian artists or containing works by Canadian composers. Highlights included the first broadcast by the BBC Welsh orchestra (conducted by Andrew Davis) of Glen Buhr's Beren And Luthien; a recital of Canadian violin music given by Dennis Simons, the Canadian leader of the BBC Philharmonic Orchestra; music by Claude Vivier, recorded at last year's Almeida Festival; and a performance of Serge Garant's Quintet played by the Societé de Musique Contemporaine du Québec. The Stravinsky concert from the Edinburgh Festival and the London Promenade concert by the Toronto Symphony Orchestra were also broadcast.

Walter Susskind, director of The Toronto Symphony, 1956–65

In our last issue, relating the history of The Toronto Symphony, a reference to Walter Susskind, the orchestra's director from 1956–1965, was erroneously omitted. Under his guidance the orchestra's repertoire was expanded, including first performances of a number of Canadian works, as well as first performances in Canada of works from the international repertory. He was also responsible for the foundation of the National Youth Orchestra of Canada.

New era of painting on show at Canada House



Derek Root
Explosion in the landscape, *1985; enamel, oil and tar on canvas; 223×323cm*

In the summer of 1984, the Vancouver Art Gallery mounted an exhibition that by many accounts was the most important to be held on the west coast of North America for at least ten years. The exhibition, featuring works by eight young Canadian artists, was one of a series of artistic events which helped to establish Vancouver as a major creative centre. It also brought to everyone's attention the most recent developments that had taken place in the figurative painting tradition in Canada.

Four of these young artists — Angela Grossman, Graham Gillmore, Attila Richard Lukacs and Derek Root — are all recent graduates of the Emily Carr College of Art and Design in Vancouver. For three years, they worked closely together, and today, they still share a studio and think of themselves as a group — so much so that they have been labelled by their contemporaries as the 'the Gang of Four'.

In the two years since their first showing in Vancouver, they have had an impact on the Canadian art world that one critic has compared with the impact that the Young Contemporary shows had in Britain during the early 1960s.

At that time, artists like David Hockney, Peter Blake and Allen Jones helped launch the British Pop movement which came into being as a reaction against the influence of American abstract expressionism, and was to dominate British art for the next decade.

Today, critics are saying that 'the Gang of Four' are exerting a similar influence on the Canadian art scene, except in this context they are challenging the principles of the 'Realist' school of Canadian painting.

For seven weeks at the end of this year — from December 18 to February 3 — works by the four artists will be exhibited at the Canada House Cultural Centre in Trafalgar Square, London (open Monday to Friday, 10.00am to 5.30pm).

The exhibition will be coming to London after a successful showing in Paris.

Says Scott Watson, Curator of the Vancouver Art Gallery: 'These paintings rivet one's attention, for this is the first generation of Canadian artists to take a perverse stance, to shrug their shoulders in mock incomprehension when asked to account for themselves.

'They are young, at the very beginnings of their careers as artists and will lead lives well into the next century. They are cunning, talented and already, to accept them is to accept a mild poison. We can only wish them well in concocting yet stronger doses.'

Here's how Watson describes the works that will be on display in London.

In their scale and in the immediacy of their gestures, the works of the young painters owe a great debt to the New York School of the post-war years, but the belief from which the works are born is utterly different.

Attila Richard Lukacs
Il y a quinze ans que je n'ai pas su ca, *1985; enamel, oil and tar on canvas; 259×487cm*

Graham Gillmore
You do not belong to you, *1985; oil, tar, horn and enamel on canvas; 427×274cm*

In the 1940s, a combination of existential lament for the human condition and an ardour for spiritual truth created the urgency of the abstract expressionist project. 'The Gang of Four' working in the fifth decade of the Cold War era, are de facto decadents. They revel in decrepitude and the opulence of ruin.

Nietzshe comes to mind when contemplating the production of these artists. The works are a combination of the brutal, the artificial and the 'innocent'; thus, to paraphrase the German philosopher, they speak all at once to the three senses of the modern soul.

The gratification these paintings offer is disturbing. Their sensual appeal is immense, the subject matter arouses our curiosity, the aura of transgression gives us a feeling of liberation from outmoded values. And, if the world of these paintings seems as if it comes to us from nineteenth century chambers long ago sealed shut by the avant-garde impetus of modern art, we nonetheless must recognize it as our own exhausted and ennervated historical moment.

Derek Root's *The Hunter Home from the Hunt* — executed in a brilliant palette of putrescense, illuminated not by a new dawn but by the last flicker of light from the age of reason — presents us with a baroque heap of straw and slaughtered deer crowned by an infant.

Attila Richard Lukacs' large painting of a stadium is a pastiche of nineteenth century academic spectacles.

Angela Grossman's ghostly figures are literally embedded in the rubble and wreckage she paints them on. They emerge from the cheap plywood panels like stains.

In Graham Gillmore's transfigurations, we find ourselves inside a realm that is partly alchemical laboratory, partly crypt and entirely inside the body and its functions.

All four painters work their surfaces extensively, scraping, scratching, digging, as if they were excavating an archaeological site. Problems of composition are solved by casual reference to the piles of reproductions which litter their studio. These same reproductions are the source of many of the figures in the paintings.

This pillage of European art history is conducted more or less frivolously and with nostalgia, like rifling through an old trunk in an attic. As North Americans, these painters are animated by the inarticulate and restless energy which is the basis of the New World experience.

Angela Grossmann
The Wedding, 1985; *enamel, oil and tar on wood; 155×290cm*

Angela Grossman
Born in 1955 in London, England, moved to Canada in 1971. She studied journalism in Toronto and then attended the Emily Carr College of Art in Vancouver. Since 1982 she has exhibited in a number of Vancouver art galleries as well as the 49th Parallel Gallery in New York. She is at present working in a studio in Paris funded by the Canada Council, (an award for one year).

Graham Gillmore
Born in 1963 in Vancouver, he attended the Emily Carr College of Art in Vancouver. Since 1983 has exhibited mainly in Vancouver galleries and took part in an exhibition of Canadian painters in Minneapolis, Minesota, USA.

Attila Richard Lukacs
Born in 1962 in Edmonton, Alberta, moved to Vancouver in 1981. He studied at the Banff School of Fine Arts and then went on to the Faculty of Fine Arts at the University of Victoria. Since 1983 has shown his work in a number of Vancouver galleries as well as in Houston, Texas, USA.

Derek Root
Born in 1960 in Vancouver, he has exhibited his work in a number of Vancouver galleries since 1982. He is at present working in London, England.

Clans gathering in Nova Scotia

Halifax, Nova Scotia

You don't have to be Scottish to enjoy next year's International Gathering of the Clans in Nova Scotia. If you like good food, good times and good people, then Nova Scotia is one place you should be in the summer of 1987.

The International Gathering of the Clans lasts for six weeks of music, games, contests, singing, dancing, story telling, eating and drinking. Scots — and others — from all over the world will join together for this biennial festival to celebrate their heritage.

Since 1979, the location of the festival has alternated between Canada and Scotland — making 1987 the third year that Nova Scotia has hosted the festival. In 1983, 91 000 people journeyed to Nova Scotia to take part; on one historic day, there were more than 6000 Rosses gathered at the Ross Museum celebrating the Ross family's own gathering.

Not all Nova Scotians are of Scottish descent, of course. There are areas of the province where French, Irish, Dutch, German and pre-Confederate Americans established themselves. The first Scottish settlers reached the province in 1773, settling in Pictou and starting the wave of Scottish migration that gives the province its rich Scottish heritage — and, of course, its name.

Summer festivals with a Scottish flavour have long been popular in the province. Until 1979, they were held individually, and it was only after Nova Scotia approached the International Gathering Trust in Edinburgh, asking if it would sponsor international gatherings in Nova Scotia, that the festivals were grouped together under a single banner.

The principal new festival, set up to celebrate the opening of the International Gathering, is the Nova Scotia Tattoo. It will take place in Halifax, from June 27 to July 2 next year. The Tattoo is pure spectacle. It's the largest show of its kind in Canada and considered to be one of the top three Tattoos in the world.

Genealogical surveys

This year, the Scottish Societies Association of Nova Scotia is holding genealogical surveys to help people trace any members of their family who may have lived in Nova Scotia at some time. The province prides itself on its sophisticated record keeping, and while it cannot provide family trees for everyone, it can help those who have some information about their ancestors — where they lived, when they arrived, and so on.

Scots have been settling in Canada for more than 350 years — as indicated by such Nova Scotia place names as Antigonish, New Glasgow, St Andrews, Glencoe and Iona. Many of the major Scottish Clans have branches in Nova Scotia — for instance, the Camerons, who are holding two clan gatherings in Halifax and Yarmouth in June and July; and the Chisholms, who are holding a gathering in Antigonish on July 14.

Among the events planned for the 1987 International Gathering is the Fisherman's Regatta at Pugwash on July 1. The Regatta celebrations are held on the shores of the Northumberland Strait, where warm water and beaches offer seaside fun and relaxation.

The 1987 Antigonish Highland Games (to be held July 10—12) will commemorate The Games' 126th year. Competitors will come from Canada and the United States to test their skills and enjoy the fun and competition. Featured events are the kilted golf tournament, Highland ball, massed pipe band parade, piping and drumming competitions, highland dancing tattoo and concerts under the stars.

In Pictou, the Lobster Fisheries Carnival starts on July 9 and lasts three days. There will be lobster boat races, lobster suppers, a great parade and outdoor concerts.

Even small communities such as Whycocomagh (pronounced why-cog-o-ma) will put on an impressive celebration. There'll be fiddling, piping, piano playing, Gaelic and English singing, step dancing and highland dancing — leading up to the festival's finale on August 8 at St Ann's.