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# Industria et Commerce

# the Mitel Superswitch is more... and less



SX-200 cabinet and attendant console



SX-100 cabinet and attendant console

Trada Mitel understands today's needs. That's why the Superswitch doesn't take up a lot of space. Or use a lot of power or cost Bibliothequa a lot of money. What our innovative Superswitch does do is perform. Better than any other PABX on the market. Which is why major telcos all over the world are already using it.

The Mitel SX-200 is the most compact, full-capability PABX in the world. The SX-100 is the SX-200 in an even smaller cabinet for lower line size applications. Both are incredibly easy to handle and install.

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Something else that's nice about this PABX is that it's ready for any application. It comes with a complete range of operating features. If you can't use all of them, you simply activate those features you need. It has a built-in checking system, too. If a circuit malfunction occurs, Superswitch automatically re-routes subsequent calls. It also identifies faulty circuit cards for rapid replacement. And, as if that weren't enough, the Superswitch has a back-up battery to guard against memory loss should a power failure occur.

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# Canadainthe

# World of Electronics

This directory, published by the Canadian Department of Industry, Trade and Commerce, is your ready reference to more than 350 Canadian electronics companies experienced in serving world markets with quality products and services. We know you will find it of continuing value.

Starting with a brief account of the success and growth of electronics in Canada, the directory lists companies providing electronics equipment and systems, components, and those that provide consulting services. A product cross-index shows you exactly where to look for your particular requirements.

For further information about Canada's electronics industry please contact Electrical and Electronics Branch, Department of Industry, Trade and Commerce, Ottawa, Ontario, Canada K1A 0H5, or the nearest Canadian Trade Office in the list starting on page 73.



5th edition, Printed in Canada. March 1980.



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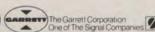
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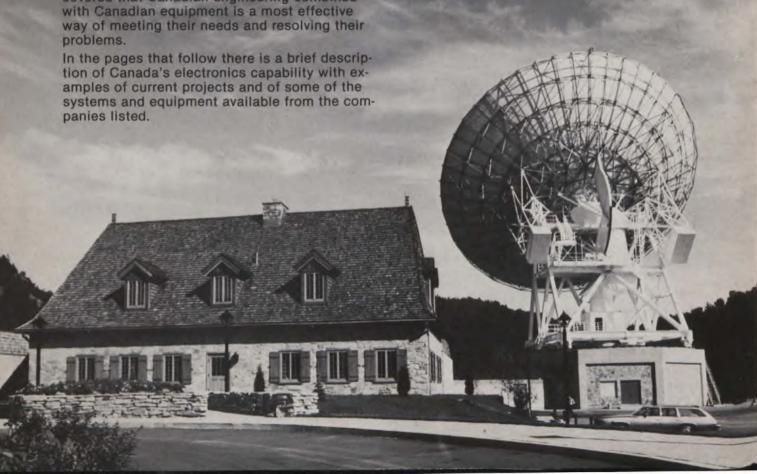
# Introduction

Ranking among the world's leading industrial nations, Canada has an electronics industry with wide capabilities. It serves domestic needs of extraordinary variety and challenge as well as supplying high-technology goods throughout the world.

Canada extends 6,000 kilometres (3700 miles) from Atlantic to Pacific with an area of 10 million square kilometres (3.8 million square miles). The population of 24 million is small relative to the size of the country. It is rich in natural resources which are generally located far from the major population centres.

Because of this, industrial developments related to communications transportation, and the exploration, development, delivery, and processing of natural resources have been emphasized. In mastering its environment and geography Canada has become a world leader in the development and application of the most advanced electronics technology to these industrial problems. Examples of Canadian electronics technology, ranging from small equipment packages to extensive integrated communications networks can be found in more than 100 countries throughout the world. These countries have discovered that Canadian engineering combined with Canadian equipment is a most effective way of meeting their needs and resolving their problems.

Teleglobe satellite earth station at Weir, Quebec.



# Telecommunications

Telecommunications is one of the leading Canadian electronics capabilities. Engineering and scientific skills in this specialty grew from the need to provide a network for broadcast, message. and television transmission across Canada's vast range of geographical and environmental conditions. Today, one of the largest telecommunications networks in the world reaches through six time zones to serve the needs of Canada's communities. The experience gained in the design and installation of this tremendous transcontinental and space system has been made available through Canadian consulting and manufacturing companies to assist in the development and installation of similar high performance systems in more than 40 countries around the world.

It all began in Canada as long ago as 1846 when the first commercial electric telegraph system in Canada was established between Toronto and Niagara, a distance of about 60 kilometres (37 miles).

On August 10, 1876, the telephone inventor, Alexander Graham Bell, successfully completed the world's first long-distance telephone call from Brantford, Ontario, to Paris, Ontario, a distance of about 11 kilometres (7 miles), over the lines of the Dominion Telegraph Company.

From these beginnings, the communications needs of a relatively small population in a large country have led to the development of some of the most efficient telecommunications systems and equipment in the world.

# Telephone Systems and Equipment

Canada, with some 14 million telephones installed, has the eighth biggest telephone population in the world. There are some 58 telephones for every

100 persons or more than one telephone for every two persons.

Telephone systems have progressed from the manually-operated switchboards in operation during the 1890s through step-by-step in the 1920s, No. 5 crossbar in the 1950s, stored program control in the 1960s to digital switches which started to come into service during 1976.

Digital and electronic switchers are among the most important high-technology exports from Canada to the United States and abroad. Canada has earned a world reputation for excellence in production of such

technologies which also include PBXs, microwave communication systems and large scale integrated circuits.

Among the most significant of these technological developments are the digital switchers, produced for both remote and densely-populated urban centres as well as for international gateway application. These switches and sophisticated new transmission techniques will provide the backbone of the Canadian communication networks of the future. They are reliable, efficient, and can operate in only a fraction of the space

Checking the performance of a digital multiplex switcher.



required by earlier electromechanical machines.

Digital switching capability will also gradually be extended into rural areas through the employment of remote line modules homing onto a parent switcher, thereby extending sophisticated urbangrade communication services into lightly-populated areas up to 80 kilometres away.

Telephone terminals have gone through a radical series of developments over the last few years and this evolution will accelerate. Increased use of electronic switchers, and the addition of tone-topulse converters to many rotary dial phones have speeded the trend toward all-pushbutton telephones.

In addition, the replacement of electromagnetic components with silicon memory chips have led to the development and preliminary trial of electronic telephones which in the next few years will be produced in new shapes and equipped with many new service features.

Digital PBXs have also found wide acceptance in business and have been enhanced to provide new features of particular value to small and mediumsized offices. Digital switching capability in the near future will further enhance the abil-

ity of local switchers to perform remotelocated switching functions in the business community.

Highly professional groups of consulting engineering firms provide a full range of services to the telephone industry. These include preliminary investigations, advisory services, design engineering, project management, specialized design and development services.

# Ground-Based Communications Transmission Systems

Over the years since the opening of Canada's first telephone exchange in Hamilton during 1878, Canada has developed a vast integrated grid of telecommunication transmission facilities comprising wire lines, cables — both land and submarine — microwave networks, and satellite earth stations.

Four separate major microwave networks — two at 4 GHz and one at 8 GHz, owned by the TransCanada Telephone System (TCTS), and one at 6 GHz owned by Canadian National/Canadian Pacific (CN/CP) Telecommunications — now span all or part of Canada.

Other major microwave systems carry north-

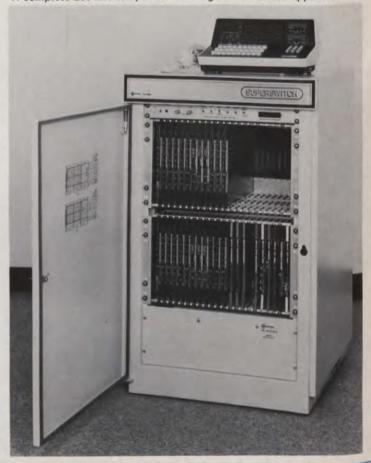
south traffic from the United States border at Alberta to Alaska and from the U.S. border at Manitoba to the shores of Hudson Bay.

Various other microwave networks and spur links are integrated with radio systems — HF, VHF, troposcatter — and other terrestrial services to complete the grid, in excess of 30,000 routekilometres, of microwave systems throughout Canada.

One of the newest developments is the deployment in early

1980 of an 8 GHz digital radio system overbuilt on the existing TCTS 4 GHz analogue system between Toronto and Calgary. This system comprises all-Canadian components and is the longest 8 GHz terrestrial digital system of its kind in the world. Historically, Canada has played a leading role in communications development. In 1901 Gualielmo Marconi received radio signals in St. John's, Newfoundland, from Poldhu, England, thus introducing the first trans-Atlantic telecom-

A complete 200-line telephone exchange for business applications.



munications system. TAT-I (36 circuits), the first trans-Atlantic cable capable of voice transmission, was laid between Canada and Britain in 1956, followed by Contat-I (80 circuits) in 1961, and Contat-II (1,840 circuits) in April, 1974. Other submarine cables in which Canada has an interest include the Pacific cable COM-PAC (80 circuits) laid in 1963, the Commonwealth SEACOM cable to Southeast Asia, the Canada-Bermuda cable, and the ICECAN cable linking Newfoundland with Greenland and Iceland.

The Canadian Overseas Telecommunication Corporation (COTC) was set up in 1950 to establish, maintain and operate Canada's external telecommunications services. Now called TELEGLOBE CANADA. this corporation became Canada's representative on the International Telecommunications Satellite Consortium (INTELSAT) in 1964. Canada's first INTELSAT experimental satellite earth station (SES) was completed at Mill Village,

Final assembly on a telephone terminal for business systems.



Nova Scotia, in 1966, followed by a fully commercial station at the same site in 1969. A third SES at Lake Cowichan on Vancouver Island went into service in 1974 for communications with Pacific Rim countries. A fourth SES, located north of Montreal, went into service in 1979.

Land cables have been in operation in Canada for many years. The largest capacity cable system consists of a pulse code modulation (PCM) buried coaxial cable established in 1975 on the high density 645-kilometre (400mile) route connecting Montreal, Ottawa and Toronto, This cable system was a joint effort of a major Canadian telephone utility and a manufacturer. It is the longest digital system of its kind in the western world. The single sheath, 12-tube cable can carry a total of 20,000 equivalent voice circuits with an information capacity in excess of one billion bits per second.

The increasing use of fiber optic systems throughout telephone companies from the subscriber's premises to long-haul, high performance toll systems will enable expansion of digital transmission at all levels.

Although data communications were effectively introduced in Canada in 1846 with

the establishment of the first telegraph system, they assumed increased importance in 1956 when CN/CP introduced the first automatic switched data service in Canada in the form of Telex. In 1962 TCTS introduced a competitive service, teletypewriter exchange service (TWX). TCTS expanded its long-distance digital data services by introducing DATAROUTE in 1973, the first system of its kind in the world. and DATAPAC in 1976. CN/CP provided INFO-DAT in 1974 followed by INFOSWITCH in 1977. DATAROUTE and INFODAT are nationwide digital data networks, while DATA-PAC and INFOSWITCH are nationwide packetswitching data networks.

**TELESAT Canada was** formed on September 1, 1969, by an act of the Canadian Parliament to own and operate the Canadian domestic satellite system. With more than. 100 satellite earth stations of about 14 different types and sizes ranging from large stations with 30-m (100-ft.) antennas to small transportable stations with 4.5-m (15-ft.) antennas. TELESAT now offers a wide variety of services to even the most remote areas of Canada. The initial system operates entirely at 4/6 GHz. With the introduction of

Anik B in 1978, the system was expanded to include 12/14 GHz service for direct city-to-city downtown service. This service is particularly attractive for data communications.

It is also being used experimentally for direct-to-home television reception in remote areas. Anik B is the first commercial satellite to use both 4/6 GHz and 12/14 GHz bands. New communications capacity will be available on three Anik C series satellites scheduled for launch in 1981-83 by NASA's Space Shuttle and plans are already underway for Anik D later in the 1980s.

Another important development in communications transmission technology took place in 1978 when Canada's Department of Communications announced the development of an advanced terminal for videotex. an international generic term for interactive television technology. Called Telidon, it is capable of producing images with a much higher resolution than currently available equipment. Superiority is also exhibited in flexibility and compatibility of data bases with different terminals and capacity for future growth. A large scale installation and market trial is being planned.



Direct reception from Anik B with this 1.2 metre earth station brings TV to Canada's north.

# Space Communications Systems

Among the member states of the International Telecommunications Satellite Consortium (INTELSAT), Canada ranks tenth in terms of its spacecraft investments. Its industrial centres are linked together and to the Canadian north through the TELESAT network and to the

rest of the world through TELEGLOBE satellites. The Canadian space industry has established a high reputation for standards of excellence and is particularly respected for strengths in the innovative design and manufacture of antennas, transponders, remote manipulators and specialized spacecraft components and control subsystems.



Canadian space involvement was already substantial by 1962 with the manufacture and successful launch of the Relay satellite carrying Canadiandesigned transponders, and continued through the 1960s with the Alouette and ISIS experimental satellite programs. These programs generated a wide range of new and improved subsystem designs and components. Worthy of particular mention are high-reliability electronics, tubular extendible antennas. wide-band antennas and high-power transmitters. During the early 1970s Canadian industry continued to maintain its leading role in developing space technology for

communications and remote-sensing applications. Modern plastics compositions were used for lightweight spacecraft structures. Solidstate microwave amplifiers were designed to replace more conventional components.

The world's first domestic synchronous satellite communications system was inaugurated with the launching of the first of the Anik-A series of satellites in late 1972. The three satellites of this series were launched to provide communications service to 10 million square kilometres (3.8 million square miles) of Canada.

A second generation domestic communications satellite, Anik B, was launched in late 1978. It replaced Anik A in the 4/6 GHz band and also made six 12/14 GHz channels available, some of which are being used experimentally. The pressing need for a

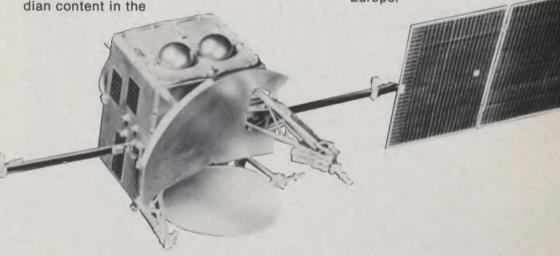
comprehensive network of data links between Canadian industrial and heavily populated areas will be further satisfied by the third generation of Anik satellites due for launch in the 1980s. Much of the development work for this new series was carried out using what was the world's most powerful communications satellite. Launched in 1976. Hermes was an experimental broadcast vehicle that completed its mission in 1979. Canada's eighth satellite. it had a solar cell supply providing 1.2 kilowatts of power and a 12 GHz transmitter with 200 watts output. Internationally, Canadian industry has cooperated in joint ventures with U.S. and European industry to the extent that Cana-

form of mechanical and electronic subsystems is to be found in most of the world's commercial communications satellites. The U.S. Tracking and Data Relay Satellite Spacecraft carries essential electronic subsystems designed and manufactured in Canada.

In co-operation with the National Space Agency of the United States, Canada is developing, qualifying and manufacturing the critical Remote Manipulator System (RMS) for the Space Shuttle transportation system. RMS is a remotelycontrolled mechanical arm, some 15 m (50 ft.) long with six degrees of freedom, which will be used to unload the payload from the Shuttle while in weightless orbit.

During 1976, the Canadian space industry was consolidated to create an industrial structure capable of undertaking prime contracting responsibility for a complete communications satellite. Canadian government agencies and Canadian companies are active in international space projects.

In addition to the work with NASA. Canada is an observer to the European Space Agency (ESA) and is strengthening its involvement in that agency's programs. Canada is currently taking part in the definition phase of ESA's L-SAT, a large communications satellite with a proposed 10 kw power supply, intended to provide communications coverage of Europe.



Anik B communications satellite.

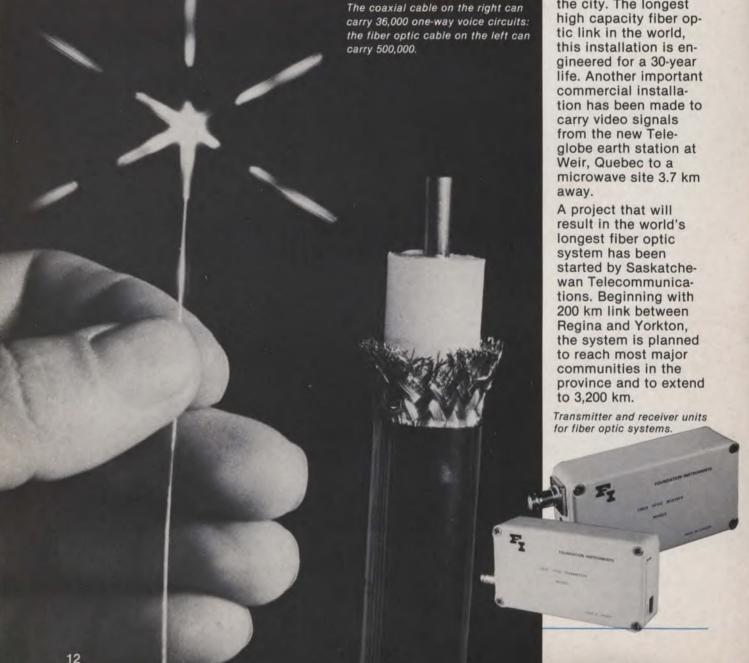
# **Fiber Optics** Systems

Fiber optics have been used in communications systems in Canada since 1976 and several major trials and applications have been undertaken. Canadian industry has a leading position in this new technology. In a residential area of Toronto some households are being used to show the practicability of the simultaneous transmission of telephone, data, and television in urban loop facilities under

working conditions. In the rural environment an extensive field trial is being cosponsored by the Canadian Telecommunications Carriers Association and the federal Department of Communications with the cooperation of the

Manitoba Telephone System. Some 150 households in the rural community of Elie, Manitoba are involved.

A major installation that is to carry over 20,000 voice circuits is being made by Alberta Government Telephones from Calgary to a site 50 km from the city. The longest high capacity fiber optic link in the world. this installation is engineered for a 30-year life. Another important commercial installation has been made to carry video signals from the new Teleglobe earth station at Weir, Quebec to a microwave site 3.7 km away.



# Transportation Electronics

# Avionics -**Airborne**

A wide variety of airborne equipment is produced by Canadian industry. Included are altimeters, emergency



beacons, flight data recorders, crash position indicators and aircraft instruments.

Navigation aids have been developed in Canada over many years and now include inertial guidance, doppler, area navigation. Omega and combined display systems. Projected and moving map displays are produced for both fixedwing aircraft and helicopters. Combining the capabilities of the moving map with computer driven displays provides horizontal situation displays for advanced military aircraft.

The modern trend in aircraft navigation systems is towards the use of satellites. Therefore a Canadian capability has been developed for computer controlled, steerable, solid-state aircraft antennas.

Airborne maritime requirements are being met with surveillance/ ment, magnetic anomaly detection (MAD) and anti-submarine warfare (ASW) display systems. ASW surveillance signal processing systems have been readily accepted in British aircraft and U.S. Navy groundbased systems. Digitized TV systems being developed will meet the special requirements for multi-sensor displays and certain ASW applications.

Rising fuel costs are creating the need for systems to optimize flight envelopes and reduce fuel consumption. There are now Canadian-developed fuel management and engine thrust measurement systems (flight advisory systems) to meet these needs.

Other recently developed Canadian avionics products include annunciator systems, flat panel cockpit display systems, and computerized flight management systems. Ground-Based

Airborne navigation

system.

Complementing its capabilities in airborne electronics, Canada can supply a wide range of ground-based electronic systems for air transportation. This capability has been tested through experience in building and equipping more than 1,600 facilities ranging from Arctic airstrips to major international airports such as Mirabel

north of Montreal. The facilities installed include weather, route and airport surveillance radars, VOR (including doppler VOR), DME, ILS, and air to ground communications equipment.

Canada is also a world leader in the design and production of flight simulators for civil and military aircraft, both fixed-wing and helicopter.

Canadian industry has produced, for the Ministry of Transport, an automated air traffic control system designed to cope with the rapidly increasing density of air traffic. The system, known as JETS (joint enroute/terminal system), adopts a modular approach that allows an installation to be scaled to any requirement, with provisions for expansion as demand increases. Canadian in-



dustry can also supply air traffic control simulators to meet a variety of requirements.

Other electronic systems to aid in the operation of both airfields and airport terminals have also been developed. The operational information display system (OIDS) is a computer-based system that displays information on the operational status of the airfield. The flight information display system (FIDS) can provide similar information on the status of such terminal facilities as gates, baggage handling facilities, etc. A fully automated dispatch system has been developed called the airline information dispatch system (AIDS). In addition to such major systems, there are also available a number of small systems to assist in airport operations. Examples are - passenger information displays, a runway visual range system and a variety of airport security devices such as X-ray baggage scanners and explosives detectors.

# Marine

Canadian firms have developed and are producing advanced equipment in the marine electronic field. Included are sonars, sonobuoys, gyrocompasses, inertial navigation systems, auto-



Loran C coordinate converter.

mated ship powerplant trend analysis systems, integrated navigation and automated pilot systems, and vessel traffic management systems, all of the most modern types.

Sonars and sonobuoys detect undersea obiects or measure salinity and water temperature. Marine gyrocompasses and inertial navigation systems provide ships with the same navigational facilities used by aircraft for a number of years. With the high cost of fuel there is an increasing need for automated trend analysis systems, which provide ships with the capability to "peak" the operation of diesel or steam plants under a wide variety of power settings, and to prevent costly unscheduled breakdowns by forecasting machinery failures. The application of these systems can result in fuel savings of from one to five per cent a year.

By applying computers and associated soft-ware to shipboard electronic navigation systems, it is now possible to supply integrated navigation and automated pilot systems for more efficient handling of ships, and lower skill requirements for the crews.

Vessel traffic management systems provide the same type of facilities for controlling ship movements in harbours and restricted waterways as have been used in the control of aircraft for many years. The first major Canadian

system was installed on the west coast for Vancouver and environs.

Another major vessel traffic management system will be installed shortly in the busy St. Lawrence River downstream from Quebec City.

# Mobile

An ever-increasing number of commercial and public service vehicles rely on twoway radio communication for effective operation. This involves mobile units, base stations, portables, and both mobile and fixed repeaters. Canadian industry supplies many of these needs and uses the latest technical developments in this equipment. An example of innovation in this field is a trial being conducted with a large taxi fleet using a computer-operated despatch system designed to raise the utilization of the vehicles.



Frequency-synthesized mobile VHF transceiver.

# Instrumentation and Process Control



Control room at a Canadian nuclear power station.

The Canadian environment has forced Canadian industry to develop highly sophisticated instrumentation, supervisory and process control techniques to locate, exploit and deliver its natural resources.

In the field of geology and mineral geophysics, Canada's mammoth size and large wilderness areas have caused Canadian industry to develop both airborne and groundbased geophysical in-

A six-channel recorder/reproducer for transmitter logging.



strumentation unique in the world. As new data acquisition storage and data reduction techniques become economically feasible they are being implemented to speed the cataloguing and analysis of the ever-increasing amounts of data generated. Canadian industry is the leading supplier of geological and mineral geophysical instruments and systems to the rest of the world.

Canada's vast size and relatively sparse population has also resulted in the development and use of other remote sensing techniques, instrumentation and systems to list and monitor surface resources, produce maps and carry out cadastral surveys. Canada is in the pro-



cess of implementing one of the most ambitious postal mechanization programs in the world. When the installation is completed, a minimum of 50 per cent of Canada's mail will be automatically coded and up to 90 per cent will be sorted automatically.

The demand for increased productivity has placed Canada in the forefront of process automation usage. Canadian industry has paid particular attention to re-

source processing systems, such as pulp and paper, mining, mine-mill control, gas extraction plants, and oil and gas transportation systems. For instance, Canada's two major pipelines, each of which is more than 4,000 kilometres (2,500 miles) in length, are under direct central computer control. The gas pipeline is controlled from a Toronto skyscraper while the oil pipeline is controlled from midtown Edmonton.



# Computing Equipment

Since the purchase of the first computer by the University of Toronto in 1952 (second in the world). Canadian institutions and industry have been closely linked with the development of computer technology. As a result. Canadian firms today are involved in the design and manufacture of an extensive variety of computer products as well as the development of advanced computer applications and the provision of the most sophisticated information processing service in the world.

Canadian manufactured computer products include mainframes, peripherals and terminal devices, data entry and retrieval equipment and word processing systems, to name a few. Many of these products incorporate the most recent and advanced concepts in micro-circuitry and micro-computer design. Canadian companies have produced specialized terminals and equipment with built in "intelligence" for use in areas such as communications. banking and graphics. Canadian companies have designed and developed complete computer turnkey systems for a broad range of applications. With offthe-shelf micro or minicomputers, specially designed software and interface circuitry a total system is developed for applications in areas such as business, finance and education. These systems control functions as



Microprocessor-based data terminal.

transactions or as massive as the monitoring and management of electrical generating stations. With the advent of the world's first commercial digital data network in Canada, the already expanding information processing

industry has mush-

roomed. Network mem-

computer service bureaux, offer the most advanced and sophisticated remote time sharing and batch processing services anywhere. In addition, the companies supply specialized software packages for any number of applications and a complete consulting service.



# Other Electronic Equipment and Components

The preceding sections have briefly described some of the major areas of Canadian expertise available for export. In addition to these, there are a number of manufacturers who supply equipment for highly specialized requirements.

Working in co-operation with University of Toronto's Institute of Biomedical Electronics and Engineering, manufacturers have developed a wide range of electronics monitoring and diagnostic equipment which is gaining widespread acceptance in progressive medical communities.

Electronic educational and training aids are

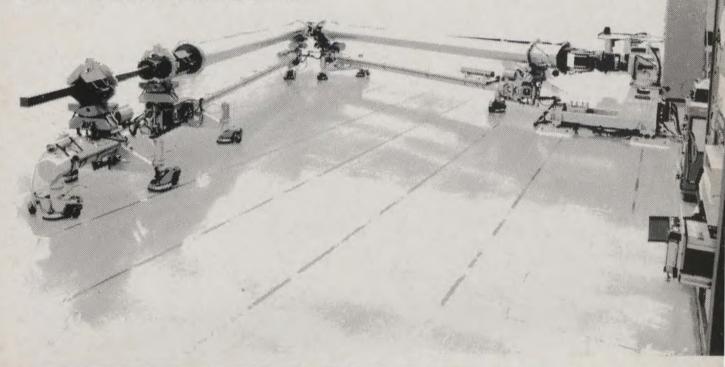


available for use in all types of educational establishments from public schools to trade training schools. Electronic sensing and control systems have been applied to a wide variety of industrial machinery and a diverse range of testing and laboratory equipment is manufactured. The Canadian equipment industry is sup-

ported by an active group of components manufacturers who tend to specialize in excellently engineered, high technology components for specific applications. Included in such applications are space, nuclear, and the higher technology communications and industrial equipment. The military market is a major

user and many Canadian component manufacturers are qualified under the well-known MIL Standards, thus ensuring the utmost degree of reliability and quality. It is becoming standard practice for many companies to incorporate the requirements of IEC specifications into their designs.

Remote Manipulator System for NASA's Space Shuttle.





# Garrett's new air traffic control radios have landed!

From the world's leading manufacturer of emergency locator beacons for downed aircraft and military personnel comes the last word in air traffic control communications technology:

Garrett's new single-channel VHF/AM G-2000T transmitter and G-2000R receiver.

Designed to meet all ICAO operating requirements into the next century, both models have already been selected by the Canadian Ministry of Transport for installation in air traffic control centers across Canada.

And it's easy to see why.

Garrett's state-of-the-art circuitry offers exceptionally clear signal transmission and reception within



the 118-136MHz civil aviation band. While convenient front-panel access puts all controls and functions literally at your fingertips.

For example, special quickchange crystal receptacles let you change operating frequencies with minimum retuning. And, with our unique front-panel fault isolation capability and full plug-in modular design, you can pinpoint and correct any problem within a matter of minutes.

Both Garrett's VHF transmitter and receiver are designed to match the performance standards set by our world famous Rescu 99 high-power emergency locator transmitter for airlines, and our low-temperature operation locator beacons for military personnel.

To find out just how easy our new VHF transmitter, receiver and emergency beacons fit into your plans, write: Garrett Manufacturing Ltd., 255 Attwell Drive, Rexdale, Ontario, Canada M9W 5B8. Or call: (416) 675-1411.



GARRETT AIR TRAFFIC CONTROL RADIOS

# Canada in the World of Electronics Company Listings



In listing corporate names, the editors have followed the customary directory practice of using the standard abbreviation "Ltd." for "Limited" in every case, rather than the precise corporate name, which in some cases may be slightly different.

# **Manufacturers**

# A.E.I. TELECOMMUNICATIONS (CANADA) LTD.

419 Notre Dame Avenue Winnipeg, Manitoba, Canada R3B 1R3

Tel: (204) 942-7221 Telex: 07-57588 TWX: 610-671-2581 Cable: ASSOCELECT WINNIPEG

**Products:** automatic number identification (ANI) equipment for use on step-by-step or crossbar telephone switching systems.

# AEL MICROTEL LTD.

108 - 4664 Lougheed Highway Burnaby, British Columbia, Canada V5C 5T5

Tel: (604) 294-3274

Switching and Subscriber Products: electronic (digital and analog) telephone switching equipment for local and toll offices; automated operator test and repair positions; private automatic branch exchanges (PABX's); key telephone equipment; secretarial answering units; telephones of all types; enterphone systems (building security control); engineering, furnish, installation and training services.

Transmission Products microwave systems in bands from 900 - 13,000 MHz up to 1,800 voice channels or colour TV capacity, complete with service channel, IF and baseband protective switching, delay equalizers, etc.; multiplex systems up to 1,800 channels, in-band or out-band signalling, regulators, termination equipment, wideband modems, echo suppressors, etc.; supervisory systems — models from 16 points/site to 3,000 points/site — LED

or colour graphic CRT displays, optional computer-based fault reporting and control; data modems from 50 b/s to 4,800 b/s; engineering, furnishing and installation of complete communication systems including civil works, towers, power, etc.

# AES DATA LTÉE/LTD.

570 McCaffrey Street Montreal, Quebec, Canada H4T 1N1

Tel: (514) 341-5430 Telex: 05-826602

Products: stand-alone word processing systems with editing video screen, electronic keyboard, single or dual diskette storage unit, microprocessor control unit, and automatic high-speed printer; optional communication capability.

# AANDERAA INSTRUMENTS LTD.

560 Alpha Street Victoria, British Columbia, Canada V8Z 1B2

Tel: (604) 386-7783 Telex: 049-7390

**Products:** water-level recorder; oceanographic instrumentation.

**Services:** data translation services, calibration facilities for oceanographic instruments.

# ABROYD CONSTRUCTION

Division of Dahmer Steel Ltd. 2 Valleybrook Drive Don Mills, Ontario M3B 2S9

Tel: (416) 444-7395 Telex: 06-966621

**Products:** communications equipment; antennas and accessories.

# ACME ENGINEERING PROD. LTD.

5706 Royalmount Avenue Montreal, Quebec, Canada H4P 1K5

Tel: (514) 342-5656 Telex: 055-60546

**Products:** carbon monoxide detection and control units and systems.

# ADAPTIVE MICROELECTRON-ICS LTD.

P.O. Box 7068, Station A Toronto, Ontario, Canada M5W 1X7

Tel: (416) 881-4112 Cable: ADMICL TORONTO

Products: OEM of energy-management and building-control systems; environmental sensors; lifesafety and property-protection multiplex alarm systems; analog and digital signal multiplexers and controllers; data transceivers; equipment interfaces; remote and central processing units; support software.

Services: energy management, environmental control, building security and protection alarm systems; feasibility studies, building analyses, systems configuration, installation, systems commissioning and maintenance.

### AERO AQUA INC.

850 Magnetic Drive Downsview, Ontario, Canada M3J 2C4

Tel: (416) 661-5960 or 630-8321 Telex: 065-24747

Products: meteorological instrumentation, including Minisonde system and self-contained remote weather station (MATER).

### AHEARN & SOPER LTD.

31 Enterprise Road Rexdale, Ontario, Canada M9W 1C4

Tel: (416) 245-4848 Telex: 06-965-770

Products: interactive terminals.

# AIRCRAFT APPLIANCES & EQUIPMENT LTD.

152 East Drive Bramalea, Ontario, Canada L6T 1E1

Tel: (416) 791-1666 Telex: 069-7540 TWX: 610-492-4396

Products: tachometer generators; voltage regulators; liquid level sensors; auxiliary power units, gasoline-engine and diesel-engine-driven generator sets to 60 kW; solid-state sign flashers; synchronous motors.

# ALLEN BRADLEY CANADA

135 Dundas Street Cambridge, Ontario, Canada N1R 5X1

Tel: (519) 623-1810 Telex: 069-59317

Products: relays, including electromechanical; starters, timers, contactors, pilot devices, switches.

### ALMA INDUSTRIES LTD.

61 Needham Street Lindsay, Ontario, Canada K9V 4Z7

Tel: (705) 324-5100

Products: piezoelectric ceramic element for sonobuoys; sonar and depth-sounding devices; piezoelectric ceramics for ultrasonic applications; ultrasonic generators; microwave filters; powders for piezoelectric ceramic fabrication; special application ceramics; high-purity and high-density alumina ceramics.

AMBER ELECTRO DESIGN LTD. 4810 Jean Talon West Suite 403 Montreal, Quebec, Canada

H4P 2N5

Tel: (514) 735-4105

**Products:** test, laboratory and measuring equipment, including signal generators, spectrum analyzers, dB meters, distortion meters and plotters; frequency counters.

## AMERACE LTD.

10 Esna Park Drive Markham, Ontario, Canada L3R 1E1 Tel: (416) 495-6000

Telex: 06-986807

Cable: AMERACE MHKM-

TORONTO

**Products:** timing devices—electropneumatic and solid state.

## AMPEX CANADA LTD.

132 East Drive Bramalea, Ontario, Canada L6T 3T9

Tel: (416) 791-3100 Telex: 06-97627

**Products:** video impulse distribution amplifiers for television studio and CATV applications.

### AMPHENOL NORTH AMERICA

Bunker Ramo Canada, Inc. 44 Metropolitan Road Scarborough, Ontario, Canada M1R 2T9 Tel: (416) 291-4401

TWX: 610-492-4379

Products: filtered power connectors; printed circuit connectors; power connectors; RF cable; CATV cables and connectors; RF connectors; bracket panel connectors; DK whip antenna (mobile communications); tube sockets; telephone components; customized cable harnesses; complete product development and tool room facilities.

# AMPLITROL ELECTRONICS LTD.

51 Marie-Victorin Boulevard

Candiac, Quebec, Canada J5R 1B7

Tel: (514) 659-9111 Telex: 05-27350

Cable: AMTREC, MONTREAL

**Products:** electronic high-security systems for financial institutions' vaults and safes.

### ANATEK ELECTRONICS LTD.

240 Brooksbank Avenue North Vancouver, British Columbia, Canada V7J 2C1

Tel: (604) 980-7061 Telex: 043-52689

**Products:** power supplies; laboratory type, modular type, and for original equipment manufacturers.

# ANALYTIC SYSTEMS WARE

1501 East Pender Street Vancouver, British Columbia, Canada V5L 1V9

Tel: (604) 251-3234

Products: military and commercial power supplies.

# ANDREW ANTENNA CO. LTD.

606 Beech Street Whitby, Ontario, Canada L1N 5S2

Tel: (416) 668-3348 Telex: 069-81269

Cable: ANDCORP WHITBY

Products: microwave antennas for all commercial and military bands both standard and high performance; satellite earth station antennas for both synchronous and non-synchronous satellites; coaxial Heliax (R) transmission line, air dielectric and foam dielectric; Heliax elliptical waveguide for frequencies from 1.7 GHz to 15.3 GHz; rigid coaxial transmission lines and waveguides; air pressurizing equipment and accessories; scatter propagation antennas; military antennas and

transmission lines both tactical and strategic; custom-built radar antennas; navigational aid antennas; coaxial leaking feeder systems for underground communications or for buried detection systems.

**Services:** installation and field services relating to antenna systems.

# ANRO ELECTRONIC INDUSTRIES LTD.

300 Wildcat Road Downsview, Ontario, Canada M3J 2N5

Tel: (416) 661-2600 Telex: 065-24001

**Products:** solenoids; toroids; timers; miniature low-pressure switches; various custom electronic components.

# APEX PARAMETRICS LTD.

200 Steelcase Road East, Unit 4, Markham, Ontario, Canada

Markham, Ontario, Canada L3R 1G2

Tel: (416) 495-1612

Telex: 06-966773 NORDVIK TOR Cable: APEXPARA TORONTO

**Products:** ground electromagnetic survey systems, single-frequency and multi-frequency.

# APPLETON ELECTRIC LTD.

750 Lawrence Street Cambridge, Ontario, Canada N3H 2N1

Tel: (519) 653-2581 Telex: 069-59396

**Products:** control systems for machine tools and general industrial applications.

# APPLIED MICROSYSTEMS LTD.

769 Lily Avenue Victoria, British Columbia, Canada V8X 3R7

Tel: (604) 479-8034

**Products:** oceanographic and geophysical instrumentation.

## APTEC ENGINEERING LTD.

4251 Steeles Avenue West Downsview, Ontario, Canada M3N 1V7

Tel: (416) 661-9722 Telex: 06-965819

Products: nuclear radiation detectors; geiger mueller counters; hyperpure germanium detectors; nuclear electronics; fixed gamma area monitors, liquid effluent monitors, hand and foot personal contamination monitors; alpha-beta-geiger counters.

# **ARMOR ENCLOSURES**

105 Brisbane Road Downsview, Ontario, Canada M3J 2K6

Tel: (416) 663-5670 TWX: 610-492-1337

**Products:** sheet-metal cabinets designed in the modular concept for data processing, computer, telecommunications, for the electrical and electronic industry.

### ASCOLECTRIC LTD.

P.O. Box 160 Brantford, Ontario, Canada N3T 5M8

Tel: (519) 576-5287 Telex: 061-81149

**Products:** electronically controlled transfer switches; power-supply monitors; dieselengine starting panels; synchronizing equipment.

# AUDIO TRANSFORMER CO. LTD.

P.O. Box 220 202 Regina Street North Waterloo, Ontario, Canada N2J 3Z9

Tel: (519) 885-4510

**Products:** laminated iron core transformers.

# AUDIOTRONICS ENTERPRISES LTD.

631 Fort Street Victoria, British Columbia, Canada V8W 1G1

Tel: (604) 385-0911

**Products:** portable strobe markers for buoys or construction warning displays; gas detectors for marine use.

# AUDOR COMMUNICATIONS INC.

2700 Lancaster Road Ottawa, Ontario, Canada K1B 4T7

Tel: (613) 523-9933 Telex: 053 3172 AC1 Ott

**Products:** ground-based aviation communication systems; air navigation systems.

# **AUTOMATEC**

A division of BG Checo International Ltd. 7700 De Lamartine Montreal, Quebec, Canada H1J 2A8

Tel: (514) 353-8940 Telex: 05-828723

Products and services: data acquisition and processing; supervisory control equipment (microprocessor based); annunciators; power-line carrier equipment; trip-alarm relaying equipment (teleprotection); process control systems (microprocessor based); interface systems; emergency lighting; rolling-stock lighting (static inverter ballast); static power inverters and converters; fare-control systems; magnetic ticket readers; maintenance. repair and modernization of electronic systems; sequenceof-events recorders; flux control circuit for current transformers.

### **AUTO-VOX INC.**

Tel: (418) 529-9271

485 Boulevard Langelier Quebec, Quebec, Canada G1K 5P3 Products: intercom systems; public address systems; telephone equipment (PAX); electronic-design long-distance control unit.

## **AVIATION ELECTRIC LTD.**

P.O. Box 2140 200 Laurentien Boulevard St. Laurent, Quebec, Canada

H4L 4X8 Tel: (514) 744-2811

Telex: 05-826688
Cable: AVIATION-MONTREAL

Products: land navigation systems; vehicle-position reporting systems; aircraft gas-turbine fuel-control systems; aircraft instruments and flight-system components; repair and overhaul of aircraft instruments, accessories, and navigational aids; airborne radar electrical connectors.

# **AVIONICS CO.**

A subsidiary of Leigh Instruments Ltd. P.O. Box 200 Niagara-on-the-Lake, Ontario, Canada LOS 1J0

Tel: (416) 468-3632

Products: printed circuit boards; terminal boards; silk screening and precious-metal plating; designs and assembles circuit boards to customer specifications.

# **B&K PLASTICS INDUSTRIES** LTD.

9790 Meunier Street Montreal, Quebec, Canada H3L 2Y8

Tel: (514) 384-5560 Telex: 05-826511

**Products:** electronic hardware, including knobs, escutcheons, nameplates.

**Services:** custom moulding, vacuum plating.

## **BACH-SIMPSON LTD.**

P.O. Box 5484 1255 Brydges Street London, Ontario, Canada N6A 4L6

Tel: (519) 452-3200 Telex: 064-5843 Cable: WILBAC

Products: panel meters; control instruments; shunts and current transformers; portable electrical and electronic test equipment; medical diagnostic Doppler ultrasound meters, digital panel meters.

### BAILEY METER CO. LTD.

205 Brunswick Boulevard Pointe Claire, Quebec, Canada H9R 1A5

Tel: (514) 697-6770 Telex: 05-821526 Cable: BAILYCANDA

Products: pneumatic and electronic products for metering and control systems, digital sequencing systems, data acquisition systems and commissioning assistance for power and process industries.

# BARRINGER RESEARCH LTD.

304 Carlingview Drive Rexdale, Ontario, Canada M9W 5G2

Tel: (416) 675-3870 Telex: 06-968743 Cable: BARESEARCH TORONTO

Products: geophysical instruments (magnetometers, EM); airborne and ground instruments and geochemical systems; program participation and management-consulting and contracting-laboratory analyses; ground and airborne pollution detection instruments and heavy water loss detectors; ground and airborne pollution monitoring, contract research and development, electro-optics, systems engineering.

# BATTEN GRAPHICS LTD.

553 Richmond Street West Toronto, Ontario, Canada M5V 1Y6

Tel: (416) 863-1355

**Products:** lead frames, discs, filters, screens, masks and other photo-etched custom parts.

Services: chemical milling of a wide variety of metals, brass, copper, stainless steel, Alloy 42 Kovar Hy Mu 80 in thickness from .001 in. to .040 in.

### **BAYLY ENGINEERING LTD.**

A Member of the AEG-TELEFUNKEN group 167 Hunt Street Ajax, Ontario, Canada L1S 1P6

Tel: (416) 683-8200 Telex: 06-981293

**Products:** coaxial transmission systems; multiplex systems; open-wire carrier systems; analog and digital, mono and stereo program channels (STLs); conference networks; telecommunications amplifiers, attenuators, termination sets, timers, flashers, vox units, and telephone ringing/signalling equipment; electronic filters, equalizers, transformers, repeat coils, loading coils and hybrids: remote control/supervisory and tone signalling systems and equipment; power line carrier and frequency shift tone equipment; RF coaxial load resistors; RF wattmeters; telephone and coaxial jacks. plugs and adapters; VHF/FM broadcast transmitters: FM two-way mobile radio systems: secondary surveillance radar: direction-finding equipment; postal mechanization equipment for flat mail sorting; custom design and contract manufacturing.

BAYTRONIX LTD. 4006 Côte Vertu Montreal, Quebec, Canada H4R 1V4

Tel: (514) 336-9240

Cable: BAYTRON MONTREAL

**Products:** medical and biomedical instrumentation for teaching and research; electronic test instrumentation for laboratory and communications applications.

## **BECKMAN INSTRUMENTS INC.**

Helipot Division 901 Oxford Street Toronto, Ontario, Canada M4Z 1L7

Tel: (416) 251-5251 TWX: 610-492-1301

**Products:** precision multi-turn and single-turn potentiometers; trimming potentiometers; electro-mechanical assemblies to custom design.

# BEEL CONTROLS LTD.

2650 Pitfield Boulevard St. Laurent, Quebec, Canada H4S 1G9

Tel: (514) 334-6500 Telex: 05-826501 Cable: BEELCON

**Products:** DC thyristor adjustable-speed drives; rectifier power supplies; static AC power controllers for heaters, and induction motors.

### **BOMEM INC.**

910 Place Dufour, Ville de Vanier, Quebec, Canada G1M 3B1

Tel: (418) 683-1707

**Products:** interferometers and Fourier Transform spectrometers.

# BOSTON INSULATED WIRE & CABLE CO. LTD.

118 Shaw Street Hamilton, Ontario, Canada L8L 7V3

Tel: (416) 529-7151

**Products:** cable assemblies for TV cameras and computers; cables for microwave in satellite earth stations.

# BRISTOL AEROSPACE LTD.

P.O. Box 874

Winnipeg, Manitoba, Canada

R3C 2S4

Tel: (204) 775-8331 Telex: 03-5587 TWX: 610-671-3598 Cable: BRISAIRCO

**Products:** rocket telemetry and control systems (for scientific soundings and meteorological data acquisition) — VHF telemetry transmitters; voltage controlled subcarrier oscillators; voltage regulators; IRIG standard commutators; magnetometers; aspect measuring systems; vehicle telemetry antennas; electronic timers; modular data acquisition systems (pollution, meteorology, hydrology, oceanography, etc.); encoders and decoders: teletype formatters: remote and master control stations (manual and automatic); analog-to-digital and digital-to-analog converters; modems (RF or hard line); data processing; satellite telemetry equipment — PCM encoders and decoders; switching units; remote controlled nuclear heat exchanger tube inspection systems and instrumentation eddy current instruments, data communications, microprocessor control systems, automatic tube selection devices, display consoles; wind power conversion systems for remote locations — vertical axis turbines, low speed alternators, control systems, power systems.

# BROWN BOVERI CANADA LTD.

Systems Division 4000 Trans Canada Highway Pointe Claire, Quebec, Canada H9R 1B2

Tel: (514) 697-6210 Telex: 058-21542 Products: overhead ground-wire power supplies; control equipment for power supplies in utilities and subways; telephone carrier systems.

# BURGESS BATTERY (CANADA) INC.

20 Densley Avenue Toronto, Ontario, Canada M6M 2R1

Tel: (416) 364-6141 Telex: 061-5320

**Products:** batteries — power package; also special batteries for submarine-detection equipment.

# **BURGESS SWITCH CO. LTD.**

777 Warden Avenue Scarborough, Ontario, Canada M1L 4C3

Tel: (416) 751-8280 Telex: 06-963582

**Products:** switches, including illuminated, limit, micro, proximity, pushbutton, safety, snapaction, solid-state.

### **BURNDY INC.**

Components Division 80 Bullock Drive Markham, Ontario, Canada L3P 3P7

Tel: (416) 294-6634 Telex: 06-22574

Products: electrical and electronic connectors and wiring accessories including PC connectors, IC sockets, rack and panel connectors, circular connectors; crimp terminals, cable ties and clamps, coaxial ferrules, installation tooling; bolted and compression power connectors for aluminum and copper conductors.

# BURROUGHS BUSINESS MACHINES LTD.

801 York Mills Road Don Mills, Ontario, Canada M3B 1X8

Tel: (416) 445-4030 Telex: 07-57398 **Products:** disk cartridge drivers for data-processing systems.

### CAE ELECTRONICS LTD.

P.O. Box 1800 St. Laurent, Quebec, Canada **H4L 4X4** 

Tel: (514) 341-6780 Telex: 05-827812 TWX: 610-422-3063

Products: commercial aircraft flight simulators; military aircraft flight and tactical simulators; helicopter flight and tactical simulators; nuclear power station simulators; computerized air traffic control display systems; airborne magnetic anomaly detection and compensator systems for ASW applications; supervisory control and data acquisition systems for electric power and petroleum industries; field maintenance, repair and overhaul, test and calibration services and facilities.

### CTF SYSTEMS INC.

1750 McLean Avenue, Suite 15 Port Coquitlam, British Columbia, Canada V3C 1M9

Tel: (604) 941-8561

Products: high-sensitivity magnetometer for scientific and survey applications; digital decompression calculator for diver support purposes; ultrasonic non-destructive testing equipment for ship boilers, magnetocardiogram.

# CTS OF CANADA LTD.

80 Thomas Street Streetsville, Ontario, Canada L5M 1Y9

Tel: (416) 826-1141 Telex: 06-97508

**Products:** static inverters: uninterruptible power supply systems including start-up assistance; DC-DC (static) converters: static frequency converters; battery chargers; rectifier-power supplies; variable resistors; selector switches: trimming potentiometers; crystals; filters; rectifiers: inverters; microminiature components and circuit packages.

# **CALGARY CONTROLS LTD.**

7056 H. Farrell Road, South East Calgary, Alberta, Canada

T2H 0T2

Tel: (403) 253-6101

Products: hand-held transceiver used on railway lines, can be used on data lines without interfering with data transmission.

# CALIFONE INDUSTRIES LTD.

1305 Odlum Drive Vancouver, British Columbia, Canada V5L 3M1

Tel: (604) 254-5148 Telex: 04-54521

**Products:** tape recorders. listening centres and record players for educational institutions and industry.

# **CANADA WIRE AND CABLE** CO. LTD.

147 Laird Dr., Toronto, Ontario, Canada M4G 3W1 Tel: (416) 421-0440

Products: fibre optics products for telephone, CATV and control systems applications.

# CANADIAN APPLIED TECHNOLOGY

A Division of Arrowflight Holdings Ltd. Buttonville Airport 16th Avenue Markham, Ontario, Canada L3P 3J9

Tel: (416) 297-4681 Telex: 06-986511

Products: telemetry system (digital mini-computer controlled); hydrographic data acquisition system; oceanographic survey data acquisition system; airborne geophysical survey system; air quality telemetry system; mobile air quality survey system; telemetry system (tone); data recorder (DC300A); data averager; micro-processor hydrographic data acquisition system.

# CANADIAN ASTRONAUTICS LTD.

1024 Morrison Drive Ottawa, Ontario, Canada K2H 8K7

Tel: (613) 820-8280

Products: custom designed electronic systems including: instrumentation systems; test facilities; display and control units; data acquisition systems; RF transmitters and receivers; antennas; battery chargers and management systems; signal processors; computer interfaces; microprocessor applications; satellite ground stations: airborne radar.

# CANADIAN GENERAL ELECTRIC CO. LTD.

940 Landsdowne Avenue Toronto, Ontario, Canada M6H 3Z4

Tel: (416) 534-6511 Telex: 02-2057

**Products:** traffic control equipment; controllers, signals and accessories.

# CANADIAN GENERAL ELECTRIC CO. LTD.

100 Wingold Avenue Toronto, Ontario, Canada M6B 1R2

Tel: (416) 789-3281 Telex: 06-524238

Products: mobile radio communications equipment.

# CANADIAN GENERAL ELECTRIC CO. LTD.

107 Park Street North Peterborough, Ontario, Canada K9J 7B5

Tel: (705) 742-7711 Telex: 02-9826

Products: static power conversion equipment; control and regulators for DC and AC motors, drive systems and industrial processes; static digital logic systems; design and manufacture of control instrumentation of nuclear power plants; high current semiconductors, diodes and thyristors.

# CANADIAN GENERAL ELECTRIC CO. LTD.

TV Equipment 396 Attwell Drive Rexdale, Ontario, Canada M9W 5C3

Tel: (416) 675-7500 Telex: 06-219714

**Products:** television broadcast transmitters, antennas and filters.

# CANADIAN DIGITAL EXPRESS CO.

5 Denison Street Markham, Ontario, Canada L3R 1B5

Tel: (416) 495-1855

**Products:** terminal options; process control equipment.

Services: in-shop repair service for data communication equipment, including terminals, modems and printers.

# CANADIAN MARCONI CO.

2442 Trenton Avenue Montreal, Quebec, Canada H3P 1Y9

Tel: (514) 341-7630 Telex: 01-2260 TWX: 610-421-3564

Cable: ARCON MONTREAL

**Products:** full range of fixed, mobile and portable radio communications equipment in

HF/SSB, VHF/FM and UHF/FM; marine radar and communications; tactical microwave radio relay; microwave voice and data communications systems; Doppler navigation systems for fixed and rotary wing aircraft; airborne and marine OMEGA navigation systems; aircraft instrument display systems; helicopter navigation radar: land-based and marine satellite navigation and position location systems; Telex exchanges, photogrammetric systems, surveillance radar, multilayer printed wiring boards; thin film, thick film and hybrid microcircuits; delay lines; filters; transformers.

# CANADIAN PUREGAS EQUIPMENT LTD.

Box 533 Hamilton, Ontario, Canada L8N 3K5

Tel: (416) 529-7047 Telex: 061-8377

Products: telecommunications equipment, including devices for monitoring pressurized cables and pressurized microwave antennas; ultrasonic cable-leak detectors.

# CANADIAN RESEARCH INSTITUTE

Division of Criterion Instruments Ltd. 85 Curlew Drive Don Mills, Ontario, Canada M3A 2R2

Tel: (416) 445-6363

Products: educational instruments; research apparatus; high-voltage test sets; panel and portable meters; school instruments; demonstration apparatus; geophysical instruments; public utility instrumentation; pollution instruments; pH meters and controllers; power supplies; electromedical instruments; television test apparatus.

# CANADIAN STACKPOLE LTD.

550 Evans Avenue Toronto, Ontario, Canada M8W 2V6

Tel: (416) 255-2373 Telex: 06-967730

Products: isolated power systems; line isolation monitors; biomedical electrical testers; accessories for hospital electrical systems; prefabricated service walls for intensive or patient care; medical gas and electrical wall consoles.

# CANADIAN THERMOSTATS & CONTROL DEVICES LTD.

2255 Dandurand Street Montreal, Quebec, Canada H2G 1Z6

Tel: (514) 270-7135 Telex: 05-25277

Products: moxie solid-state temperature sensors; thin-film thermistors; circuit high-temperature protectors; thermistor probes; solid-state monitoring and control systems, bimetallic thermostats, thermal cut-offs.

## CANADIAN R.G. ELECTRON-ICS LTD.

34 Continental Place Scarborough, Ontario, Canada M1R 2T4

Tel: (416) 292-2286 Telex: 06-525248

Products: modular multiplexing equipment and systems, particularly System 745 custom-fit data acquisition system for automatic tank-level gauging.

## **CANSTAR COMMUNICATIONS**

Division of Canada Wire & Cable Co. Ltd. 1240 Ellesmere Road Scarborough, Ontario, Canada Tel: (416) 293-9722

Tel: (416) 293-972 Telex: 065-25403

**Products:** fibre-optic cable, fibre-optic components; electro-optic modems; fibre-

optic test equipment; complete design, installation, and servicing of fibre-optic systems.

### **CANWIRCO**

Belleville Division 200 Jamieson Bone Road Box 4700 Belleville, Ontario, Canada K8N 5E2

Tel: (613) 966-4130 TWX: 610 328 3240

**Products:** field telephone cable for military use.

### CENTAUR MFG. CO. LTD.

57 Newkirk Road Richmond Hill, Ontario, Canada L4C 3G4

Tel: (416) 884-6474

**Products:** ignition systems, ignition analyzers, including tach-dwell analyzers.

# CENTRAL DYNAMICS LTD.

147 Hymus Boulevard Pointe Claire, Quebec, Canada

H9R 1G1

Tel: (514) 697-0811 Telex: 05-821506 TWX: 610-422-3906

Products: video terminal equipment for broadcast, educational and cable television systems, available in NTSC, PAL, PAL-M and SECAM standards; video production and distribution switchers, master control (presentation) switchers, machine control systems and peripheral equipment; automated television presentation systems and video tape editors; electronic information display systems.

# CENTRAL ELECTRO TECHNIQUE

2495 Dalton Ste. Foy, Quebec, Canada

G1P 3S5 Tel: (418) 659-1111

Telex: 065-24285

Products: supervisory control equipment and data-acquisition

systems, microprocessor-based to tie into digital computer; environment instrumentation and monitoring equipment; traffic-control systems; supervisory controls for VOR; multiplex equipment, used as part of a reservations network; monitoring equipment for power-distribution companies.

Services: electronic design; engineering and drafting; product design and development.

### CENTRODYNE CORP.

9145 Charles-de-Latour, Suite 4 Montreal, Quebec, Canada H4N 1M3

Tel: (514) 381-9308

**Products:** programmable printer; automatic process control system; billiard computer; bowling computer; electronic taximeter.

# CENTURY III ELECTRONICS, INC.

1580 Rand Avenue Vancouver, British Columbia, Canada V6P 3G2

Tel: (604) 263-0911 Telex: 04-55490

Products: cable television equipment 5-300 MHz consisting of Century II trunkline; distribution and apartment amplifiers; VHF/UHF multitaps; VHF splitters; couplers and related passive devices; AC power supplies; co-axial connectors; terminators; adaptors; consulting services on cable television systems.

### CERCAST INC.

3905 Industrial Boulevard Montreal, Quebec, Canada H1H 2Z2

Tel: (514) 322-2371 Telex: 05-25318

**Products:** precision investment castings of non-ferrous alloys.

# **CETA LEARNING SYSTEMS**

452 Kraft Road Fort Erie, Ontario, Canada L2A 4M7

Tel: (416) 871-4260 Cable: CETACAN

**Products:** electronics and electricity learning systems (experimental breadboarding apparatus); power supplies; laboratory equipment; inductors; radio frequency (RF) coils.

# CHALLENGER ELECTRONICS

Division of Challenger Equipment Ltd. P.O. Box 82010 Burnaby, British Columbia, Canada V5C 5P3

Tel: (604) 291-8272 Telex: 04-354713 TWX: 610-929-2042

Products: tone signalling encoders and decoders; singletone, two-tone sequential or simultaneous, dual-tone multifrequency encoders and decoders; digital decoders; voltage regulators; radio telephone interconnect terminals.

**Products:** printed circuit boards.

### CHION CORP.

P.O. Box 1600 Edmonton, Alberta, Canada T5J 2N9

Tel: (403) 432-0597

**Products:** compiler for translation of ALGOL 68 computer language.

# CHLORIDE SYSTEMS (CANADA) LTD.

4940 Bourg Street Montreal, Quebec, Canada H4T 1J2

Tel: (514) 735-2573 Telex: 05-826862

**Products:** DC power supplies for communications equipment, including power inverters; emergency lighting equipment.

### CHUBB SECURITY SYSTEMS

A Division of Chubb Industries Ltd. 80 Horner Avenue Toronto, Ontario, Canada M8Z 4X9

Tel: (416) 252-4141 Telex: 06-97570

Products: alarm control

systems.

# CIRCO-CRAFT COMPANY INC.

1080 Port Royal West Montreal, Quebec, Canada H4H 1E9

Tel: (514) 336-4570 Telex: 05-826659

Products: printed circuit boards, medium-to-high-quality and military types.

# CIRCUIT DESIGN CORP. 1385 Mazurette St., Suite 1

Montreal, Quebec, Canada **H4N 1G8** 

Tel: (514) 382-1440

Products: programmable printer, automatic process-control system, billiard computer and bowling computer.

Services: micro-mini computersystem consulting; softwarefirmware custom services.

## CIRCUIT GRAPHICS LTD.

8030 Winston Street Burnaby, British Columbia, Canada V5A 2H5

Tel: (604) 420-3313

Products: printed circuits. plated through holes and single-sided.

# **COLLBEN MANUFACTURING** CO.

5 Thorpe Street North Dundas, Ontario, Canada L9H 1K2

Tel: (416) 628-6913

Products: antennas receiving, CB and mobile, VHF and FM.

### COM DEV LTD.

155 Sheldon Drive Cambridge, Ontario, Canada N1R 7H6

Tel: (519) 622-2300 TWX: 610-366-3164

**Products:** communications satellite components and subsystems: frequency bands from 100 to 40,000 MHz; filters, multiplexers, couplers, ferrite circulators and isolators. adaptors, terminations; high power microwave components and subsystems for earth terminals: diplexers, loads, combining networks, ferrite devices, couplers; microwave components and subsystems for terrestrial relay and radar systems from 1000 to 26,000 MHz; broadcast products: VHF and UHF antennas, combiners and filterplexers for transmission of TV and FM radio.

Services: studies and tradeoff analysis undertaken on satellite transponders, high power combining and switching of earth terminals and related areas.

# COMMERCIAL ELECTRONICS LTD.

1335 Burrard Street Vancouver, British Columbia, Canada V6Z 1Z7

Tel: (604) 669-5525 Telex: 04-54470

Products: multi-media control systems for theatres, discotheques, exhibition centres, planetariums, museums etc.

# COMMUTRON LTD.

1600 Brimley Road Scarborough, Ontario, Canada M1P 3H1

Tel: (416) 291-2733

Products: automatic telephonecall sequencer.

# COMPTEC INTERNATIONAL

LTD.

7847 Venture Street Burnaby, British Columbia. Canada V5A 1V1

Tel: (604) 420-2830 Telex: 04-354548

Products: switch components. including keytops, switch tops, moulds, plungers, plastic and ejection-moulded components.

# **COMPUTER ASSEMBLY** SYSTEMS LTD.

75 California Avenue Brockville, Ontario, Canada K6V 5Y6

Tel: (613) 342-5041 Telex: 066-36574

Services: printed circuit board assembly, using manual and automated facilities.

# **COMPUTING DEVICES**

CO.

A Division of Control Data Canada Ltd. P.O. Box 8508 Ottawa, Ontario, Canada K1G 3M9 Tel: (613) 596-3810

Telex: 053-4139 TWX: 610-563-1632

**Products:** navigation including projected map systems and displays; signal processing associated with airborne systems and displays; acoustic processing associated with ocean systems; fire control associated with fixed and mobile fire-control systems; image processing and analysis; sensor data processing; artillery, tank and other specialized computers; special control displays; automated test equipment; guided radar surveillance system using Guidar guided radar sensor for lengthy outdoor perimeters: thrust computing systems associated with aircraft jet

engines; field engineering and maintenance services.

# CONIAGAS RESEARCH INC. 166 Pearl Street Toronto, Ontario, Canada

M5H 1L3 Tel: (416) 597-0969

Products: "Coni-Mag" magnetometer.

# CONSOLIDATED COMPUTER INC.

2380 Lancaster Road Ottawa, Ontario, Canada K1B 3W9

Tel: (613) 731-7080 TWX: 610-562-8552

Products: KEY-EDIT family of shared-processor; key-to-disk data entry and source data processing systems with up to 56 CRT data terminals, disk and tape storage, printers, OCR (Scanedit), card and remote batch terminal capabilities which include HASP and 2780/3780 communications features; intelligent terminals.

# CONSPEC CONTROLS LTD.

44 Martin Ross Avenue Downsview, Ontario, Canada M3J 2K8

Tel: (416) 661-0500 Telex: 06-965843

Products: microcomputer-based monitoring and control systems for industries, utilities and mining, including a high-speed sequence-of-events logger with CRT display; monitoring and control system with distributed bus multiplexer; plant-wide energy-management systems for large users.

## CONTROL DATA CANADA LTD.

1855 Minnesota Court Mississauga, Ontario, Canada L5N 1K7

Tel: (416) 826-8640 TWX: 610-492-9145

**Products:** large-scale computer systems; the CYBER 170

series, models 171, 172, 173 and 174 for applications in education, utilities, resource development, weather forecasting and atomic/nuclear; CYBER 700 series, models 720, 730, 750.

# CONTRONIC CONTROLS LTD.

7611 Bath Road Mississauga, Ontario, Canada L4T 3T1

Tel: (416) 678-1032 Telex: 06-983630

**Products:** electronic security equipment.

## CORDS (CANADA) LTD.

220 Bowle Avenue Toronto, Ontario, Canada M6E 2R8

Tel: (416) 787-1114

**Products:** plastic electrical and electronic hardware on stock and custom basis.

### **CRAMCO SOLDER ALLOYS**

80 Sinnott Road Scarborough, Ontario, Canada M1L 4M7

Tel: (416) 757-2876

**Products:** perfect, tiny spheres of solder; high-purity solders; fluxes.

# **CREMANCO SYSTEMS LTD.**

7 Banigan Drive Toronto, Ontario, Canada M4H 1G4

Tel: (416) 429-6771

Products: stand-alone foodservice/hospitality computer system with integrated service terminals and printers, video screen, electronic keyboard, dual-diskette storage unit, microprocessor control unit (expandable to 1,000 K B); BASIC language processor, full user software applications; optional communications capability.

# CRESCENT CONTROLS LTD. 2960 West 4th Avenue

Vancouver, British Columbia, Canada

V6K 1R4

Tel: (604) 732-7461 Telex: 04-508538

Products: industrial process control equipment and systems; multi-point supervisory and alarm systems; computer-based supervisory control; supervisory control equipment and systems including pulse width modulation, audio tone signalling, time multiplexed signalling and computer-based time multiplexed signalling.

## **CRONE GEOPHYSICS LTD.**

3607 Wolfedale Road Mississauga, Ontario, Canada L5C 1V8

Tel: (416) 270-0096 Telex: 06-961260

Cable: CRONGEO TORONTO

Products: geophysical equipment; ground and borehole pulse electro-magnetic units, RADEM-VLF-EM receiver; CEM-EM transmitter receiver; VEM-vertical loop EM; Newmont-type induced polarization receiver and transmitters.

# **CROVEN CRYSTALS**

Div. of Kidde Canada Ltd. 500 Beech Street Whitby, Ontario, Canada L1N 5S5

Tel: (416) 668-3325 TWX: 610-384-2750

**Products:** quartz crystals.

# CRYSTECH CO. LTD.

250 Don Park Road Markham, Ontario, Canada L3R 2V1

Tel: (416) 495-0179

**Products:** crystal oscillators and filters.

### C·TECH LTD.

1150 Montreal Road Cornwall, Ontario, Canada K6H 5S2

Tel: (613) 933-7970 Telex: 05-811538 Products: omni-scanning sonars, echo sounders; digital depth sounders; interpolating transducer scanner; computerized test equipment; U.S. Navy design approved standard electronic modules (SEMs) underwater test facility; transducer and sonar systems engineering.

CULVER DYNAMICS LTD. P.O. Box 4054, Station A Victoria, British Columbia, Canada V8X 3X4

Tel: (604) 382-4423

Products: power monitor for telephone companies — monitors power usage and inputs information into existing data systems (all markets direct except U.S.).

D.G. INSTRUMENTS LTD.

308 Leggett Drive Kanata, Ontario, Canada K2K 1Y6

Tel: (613) 592-3141

Products: digital data acquisition system, digital clock, VOR ground check system, helicopter air data system, ultrasonic velocity sensors; hydrographic navigation systems, solid-state voice recorder.

# DALE ELECTRONICS CANADA LTD.

1255 Brydges Street London, Ontario, Canada N6A 4L6

Tel: (416) 452-3300 Telex: 06-963694 Cable: DALOHM

**Products:** resistors — precision wire-wound, industrial wire-wound (fixed and adjustable with silicone coatings); trimmer and precision potentiometers; connectors; wire-wound packaged networks.

**DANIELS ELECTRONICS LTD.** 225 St. Lawrence Street

Victoria, British Columbia, Canada V8V 1Y2

Tel: (604) 382-8268

**Products:** marine and land SSB radiotelephone equipment and accessories.

# **DECCA AUSTIN INSULATORS**

A Division of Deram Ltd. 71 Selby Road Brampton, Ontario, Canada L6W 1K5

Tel: (416) 457-8720 Telex: 06-97699

Cable: DECRADAR TORONTO

**Products:** antenna mast and tower base insulators, guy strain insulators and lighting isolation transformers; static drain resistors.

# DEES COMMUNICATIONS ENGINEERING LTD.

6475C - 64 Street R.R. No. 3 Delta, British Columbia, Canada Tel: (604) 946-8433

**Products:** telephone interface card for exclusion, musical hold, etc.

## **DELHI METAL PRODUCTS LTD.**

65 Waverly Street Delhi, Ontario, Canada N4B 1E8

Tel: (519) 582-0710 Telex: 061-81174 Cable: DELMET

**Products:** self-supporting, bracketed and guyed towers.

# **DELTA-BENCO-CASCADE LTD.**

124 Belfield Road Rexdale, Ontario, Canada M9W 1G1

Tel: (416) 241-2651 Telex: 06-965552

Products: community antenna TV (CATV) distribution equipment: products for the complete system; head-end processors, modulators, trunk amplifiers and line extenders, directional taps; local and remote control addressable taps; master antenna TV (MATV) distribution equipment: complete product range including amplifiers incorporating feed forward techniques; TV transmitters and translators: complete range of low-power TV transmitter and translator devices for NTSC applications.

# **DELTRONICS LTD.**

Bloomington Road R.R. 4 Stouffville, Ontario, Canada L0H 1L0

Tel: (416) 640-1216

**Products:** control units for wind generators; portable radio-controlled traffic lights on construction sites to replace flagmen.

# **DEVELCON ELECTRONICS** LTD.

108 - 103 Street East Saskatoon, Saskatchewan, Canada S7N 1X7

Tel: (306) 374-2202 Telex: 610 731 1324

Products: limited-distance data communications equipment, including a variety of products that transmit signals over lease or private lines; data-line switching systems, data cable.

### DIAL-A-TRONICS INCORP.

4810 Jean Talon West, Suite 304 Montreal, Quebec, Canada Tel: (514) 342-1533

**Products:** telephone-answering equipment.

# DICON SYSTEMS LTD.

719 Clayson Road Toronto, Ontario, Canada M9M 2H4

Tel: (416) 745-6044

**Products:** residential smoke detectors; intrusion alarms.

### DIFFRACTO LTD.

6360 Hawthorne Drive Windsor, Ontario, Canada N8T 1J9

Tel: (519) 945-6373

**Products:** laser and electrooptical non-contacting systems for gauging and inspection of components and parts.

### DIGHEM LTD.

Toronto-Dominion Centre, Suite 4900 Toronto, Ontario, Canada M5K 1E8 Tol: (416) 362-3878

Tel: (416) 362-3878 Telex: 06-219566

**Products:** airborne electromagnetic systems.

# DIGITAL EQUIPMENT OF CANADA

100 Herzberg Road P.O. Box 11500 Ottawa, Ontario, Canada K2H 8K8

Tel: (613) 592-5111 TWX: 610-562-8732

Products: minicomputers and microcomputers; computer systems for process-control and industrial applications. Custom products and modules.

### DIGITAL GRAPHICS LTD.

90 Don Park Road Markham, Ontario, Canada L3R 1C4

Tel; (416) 495-9633 Telex: 06-986843

Products: a computer graphic service bureau specializing in the design and manufacture of prototype boards; printed circuits, flex circuits, two-layer and multi-layer printed circuit boards; UPC and EAN bar codes on film.

### **DIGITAL VIDEO SYSTEMS**

519 McNicoll Avenue Willowdale, Ontario, Canada M2H 2C9

Tel: (416) 499-4826

**Products:** broadcast video equipment, including digital time base correctors, digital frame storage device, and digital synchronizers.

# DIRECT DIGITAL INDUSTRIES LTD.

845 Progress Avenue Scarborough, Ontario, Canada M1H 2X4

Tel: (416) 438-6104

**Products:** modular multiplexing equipment.

# DOMINION TAPE OF CANADA LTD.

104 William Street Cornwall, Ontario, Canada K6H 5T6

Tel: (613) 932-6331

**Products:** insulating devices and materials, including pressure-sensitive tapes.

# **DUAL LITE PRODUCTS LTD.**

9345 Pascal Gagnon St. Leonard, Quebec, Canada H1P 1Z4

Tel: (514) 326-8000 Telex: 05-828561

**Products:** infrared security barrier.

### **DURAND CONTROLS**

Division of Durand Machine Co. Ltd.

658 Derwent Way New Westminster, British Columbia, Canada V3M 5P8

Tel: (604) 524-6611 Telex: 04-351168

Products: industrial controls.

# **DURMITOR INC.**

961 Alness Street, Unit 24, Downsview, Ontario, Canada M3J 2S1

Tel: (416) 663-2313

Products: industrial electronic control products and services; the design, manufacture, field engineering, installation and maintenance of constant motor load regulators and remotely adjustable wired limit switching systems for automating heavy-duty industrial equipment.

# DYNALOGIC CORP. LTD.

141 Bentley Avenue Ottawa, Ontario, Canada K2E 6T7

Tel: (613) 226-1383 Telex: 053-3358

Products: data entry floppy disk terminal (DynaTermDisk); dynalogic microcomputer system; laboratory microcomputer systems complete with IEEE488 and general-purpose interface bus; DynaScript word-processing documentation package.

### DYNAMIC INDUSTRIES INC.

45 Dorchester Street South Quebec, Quebec, Canada G1K 5Y1

Tel: (418) 524-5221 Telex: 051-3868

Products: transmission line towers and allied products; microwave towers and antennas; TV towers; custom galvanizing using dry hot-dip process; general machine-shop and plate-shop works.

**Services:** engineering; structural analysis; structural and mechanical drawings; tower installation supervision.

### DYNATEL SYSTEMS

3135 Universal Drive Unit 21 Mississauga, Ontario, Canada

Tel: (416) 669-4914

L4X 2E6

**Products:** television control-room equipment.

### **EDA INSTRUMENTS INC.**

1 Thorncliffe Park Drive Toronto, Ontario, Canada M4H 1G9

Tel: (416) 425-7800 Telex: 053-4159

Products: fluxgate magnetometers; radon detection systems for uranium prospecting; automatic radon gas monitoring systems; degassing systems; magnetic observatory systems; gamma ray spectrometers and scintillometers for uranium exploration; portable proton precession magnetometers; radon daughter monitors; uranium assayers; rotary fusion burners for analytical laboratories.

### ESE LTD.

1780 Albion Road Rexdale, Ontario, Canada M9V 1C1

Tel: (416) 749-2271 Telex: 06-989522 TWX: 610 492 6360

Products: high-speed modems, including 7600-bit-per-second; traffic data analyzers, contact scanners, group delay equalizers, remote access and test systems, and array processors.

### EDAC INC.

20 Railside Rd., Don Mills, Ontario, Canada M3A 1A4 Tel: (416) 445-2292

TWX: 610-492-1398

Products: printed circuit cardedge connectors; printed circuit metal-to-metal connectors; rectangular rack and panel connectors; printed circuit card guides; contacts (loose, reel); contact crimp tools; connector accessory tools.

# EDDY CURRENT TECHNOLOGY

Box 67 Site 15 SS 3 Fredericton, New Brunswick, Canada E3B 5H1

Tel: (506) 455-0514

**Products:** eddy current instrument for non-destructive testing of metal tubes.

### **EDWARDS**

A Unit of General Signal International Division 420 Weber Street North Waterloo, Ontario, Canada N2L 4E7

Tel: (519) 885-1840 Telex: 069-5158

Cable: EDCAN WATERLOO, ONTARIO

Products: heavy-duty alarm bells, chimes, horns, buzzers, doutronic horn/siren; light-duty alarm bells, chimes, buzzers and mini-horns; electric door openers: door switches and trips for security applications; commercial electric clocks; telephone and intercom buzzers; fire protection: automatic heat detectors; alarm bells, horns, chimes, buzzers, duotronic horn/siren; singlezone fire alarm control equipment: multi-zone fire alarm control equipment; remote lamp annunciator: emergency supervised communication equipment for high-rise buildings; emergency visual audio control system, EVAC, for high-rise buildings; fire alarm control equipment to monitor remote buildings over telephone lines; door trips, switches and window tape; central control system to monitor building security systems; pulsar system, to monitor multi-functions over one pair of telephone cables; master clock and program equipment: industrial solidstate annunciator; hospital nurses call system, both visual and audio-visual; hospital doc-

tors in/out register system.

# **EKEG ELECTRONICS CO. LTD.**

P.O. Box 46199, Station G Vancouver, British Columbia, Canada V6R 4G5

Tel: (604) 685-7817

Products: telemetry transmitters and implantable transmitters; telemetry receivers; heart rate meters; neurophysiological ratemeters; temperature control units; EKG amplifiers; respiration monitors; data acquisition systems for biomedical and industrial applications; EMG and temperature biofeedback systems; industrial weighing systems for logging applications.

# **EKOLITE LTD.**

525 East Hastings Street Vancouver, British Columbia, Canada V6A 1P9

Tel: (604) 254-4515 Cable: CANEKO

**Products:** graph echo-sounders, flashing depth indicators.

# ELECTRIC POWER EQUIPMENT LTD.

1285 Homer Street Vancouver, British Columbia, Canada V6B 2Z2

Tel: (604) 682-4221 Telex: 04-51171

**Products:** fire detection and alarm systems, smoke detectors, emergency lighting systems, uninterruptible power supply systems.

# ELECTRO VOX INDUSTRIES INC.

2626 Bates Road Montreal, Quebec, Canada H3S 1B2

Tel: (514) 731-3771 Telex: 05-268741

**Products:** loud-speaker type intercoms; amplifiers; public address equipment; fire alarm equipment; fire fighter com-

munication equipment (for high-rise buildings).

### **ELECTRONIC CRAFTSMEN**

73 Schaefer Street Waterloo, Ontario, Canada N2L 4C4

Tel: (519) 884-2210

Products: electrical and electronic coils and transformers including 3-phase transformers; these components can be encapsulated by liquid epoxy casting or transfer molding with epoxy powder.

# ELECTRONIC HARDWARE SPECIALTIES LTD.

175 Eileen Avenue Toronto, Ontario, Canada M6N 1W3

Tel: (416) 769-0585

**Products:** wire-wound resistors.

# **ELECTROVERT LTD.**

3285 Cavendish Montreal, Quebec, Canada H4B 2L9

Tel: (514) 488-2521

Products: automated wavesoldering equipment; PC board assembly; cable trays; terminal blocks; wire harnessing systems; lead cutting, cleaning, component tinning, solder coating, reflow soldering, conveyorized assembly, component forming and custom design equipment for the electronics, electrical, communications, aerospace and automotive industries.

# ELINCA COMMUNICATIONS LTD.

100 Bronson Avenue, Suite 802 Ottawa, Ontario, Canada K1R 6G8

Tel: (613) 233-5671 Telex: 053-3308 Products: antennas: transmission lines; satellite communication systems; power supplies; TDM systems; FDM data systems: radar displays: microwave communication equipment; satellite earth stations; satellite sub-systems; troposcatter; antenna systems; terrestrial communications systems; supervisory and control systems; teletypewriters; data transmission equipment; teletype switching systems; radars; radio relay equipment; test equipment; digital processing systems; radio and TV broadcast systems; teletypewriter multiplex systems, etc.

## **EL-MET PARTS LTD.**

47 Head Street Dundas, Ontario, Canada L9H 3H6

Tel: (416) 628-6366

Products: cold rolled, silicon and nickel steel laminations for electromagnetic devices such as motor laminations, fluorescence and mercury ballast laminations and E&I laminations; distributed gap wound cores; C-cores; toroids; shielding materials, allied products and specialty magnetic annealing and hydrogen annealing; slitting of electrical steels for electronics industry.

# ENGELHARD INDUSTRIES OF CANADA LTD.

P.O. Box 340 100 Engelhard Drive Aurora, Ontario, Canada L4G 3N1

Tel: (416) 727-3191 Telex: 06-23214

**Products:** precious-metal contacts, chiefly of silver and silver-bearing alloys.

### EPIC DATA SALES LTD.

7280 River Road Richmond, British Columbia, Canada V6X 1X5

Tel: (604) 273-9146 Telex: 04-355701

Products: a complete range of microcomputer-based data collection terminals and microcomputer-based system control units designed to provide simple, practical and flexible systems for such applications as: time and attendance; access control; inventory control; job costing; maintenance; materials control; weigh scales (up to 75 tons); control systems used in library circulation systems and suitable for special data-collection applications.

### **EPITEK ELECTRONICS LTD.**

100 Schneider Road Kanata, Ontario, Canada K2K 1Y2

Tel: (613) 592-2240 Telex: 053-3544

Products: custom thick film hybrid microcircuits; audio amplifiers; audio preamplifiers; active filters; single-in-line resistor networks; dual-in-line resistor networks.

# ERIE TECHNOLOGICAL PRODUCTS LTD.

5 Fraser Avenue Trenton, Ontario, Canada K8V 5S1

Tel: (613) 392-2581 Telex: 06-62279

**Products:** high-voltage power supplies, voltage multipliers and rectifiers; electromagnetic interference; ceramic capacitors: filters.

# ESMOND EQUIPMENT MFG. CO. LTD.

2010 Ellesmere Road Unit 6 Scarborough, Ontario, Canada Tel: (416) 438-1538

**Products:** cable harness, custom-made printed circuit boards.

# **EXIDE ELECTRONICS**

An Inco Electroenergy Company 5200 Dixie Road, Unit 20 Mississauga, Ontario, Canada L4W 1E4

Tel: (416) 625-9627, 625-7061

Telex: 06-961272

Products: uninterruptible power systems (UPS) — for small, medium and large applications from kilowatts to megawatts — for critical and on-line computer and telecommunications installations, airports, defence installations, satellite ground stations etc.; emergency lighting equipment, interruptible and non-interruptible, from small units to 25KVa.

# **FARINON CANADA LTD.**

657 Orly Avenue Dorval, Quebec, Canada H9P 1G1

Tel: (514) 636-0974 Telex: 01-20962

Products: A wide range of products for low and medium capacity analog or digital

communications. **DM-Series Digital Microwave** Radio is available in frequency bands extending from 2 to 18 GHz, in a variety of system capacities from 1.5 to 45 Mb/s for use with standard North American or CEPT bit rates. With M1-2 and M1-3 Digital Multiplexers optionally available. The radio and multiplex interfaces are fully compatible with standard North American cross-connects and can also be used with other transmission mediums, such as fiber-optics.

LR-Series Microwave Radio communicates up to 72 voice or equivalent data channels. The LR2-400 (335-470 MHz) and LR2-900 (790-960 MHz) radios includes space for up to 6 channels of Farinon LD-G Multiplex within the basic radio frame. Additional multiplex channels can be arranged in appropriate equipment shelves. The equipment is compatible with CCIR recommendations for the respective frequency bands.

### **FARINON SR SYSTEMS**

1710 Trans-Canada Highway Dorval, Quebec, Canada H9P 1H7

Tel: (514) 683-9230 Telex: 05-821893 TWX: 610-422-4122

Products: subscriber TDM radio system uses two frequencies to give simultaneous service to any 15 of 94 scattered subscribers as well as normal telephone service without feeder cable.

# FERRANTI-PACKARD ELECTRONICS LTD.

6030 Ambler Drive Mississauga, Ontario, Canada L4W 2P1

Tel: (416) 624-3020 Telex: 06-961437

Products: light-reflecting electromagnetic display systems and components, including status indicators, numeric and alphanumeric display modules, complete turnkey display systems; third-party maintenance devices; telephone-network monitoring systems.

### FERRITRONICS LTD.

222 Newkirk Road Richmond Hill, Ontario, Canada L4C 3G7

Tel: (416) 884-3180 Telex: 069-66680

Cable: FERRIC TORONTO

Products: tone signalling modules; encoders and decoders for mobile radio; digital identification and status modules; active filters; decoder/scanners for mobile telephone; passive filters.

# FILTRAN LTD.

17C Enterprise Avenue Ottawa, Ontario, Canada K2G 0A7

Tel: (613) 226-1626 Telex: 053-4957

Products: filter networks designed and manufactured for the telecommunications industry; transformers and inductive components of all types, including power up to 500 Va.

### FINELINE CIRCUITS LTD.

170 Nantucket Boulevard Units 2, 3 & 4 Scarborough, Ontario, Canada M1P 2N9

Tel: (416) 757-5389 Telex: 065-25248

**Products:** printed circuit boards, from schematic to finished product.

# FIRE DEVICES MANUFACTURING LTD.

270 Ferrier St. Markham, Ontario, Canada L3R 2Z5

Tel: (416) 495-0213

**Products:** thermoflex dual action detector, rate of rise and fixed temperature (responds to 8°C/min. rate of rise and has fixed temperature settings at 57, 93 and 140°C).

# FISCHER & PORTER (CANADA) LTD.

134 Norfinch Drive North York, Ontario, Canada M3N 1X7

Tel: (416) 667-9800 Telex: 06-969669 Cable: FISHCAPORT

Products: electronic, pneumatic, and distributed process control instrumentation, control panels, flowmeters, digital systems and chlorination equipment.

# FISHER CONTROLS CO. OF CANADA LTD.

P.O. Box 578 Woodstock, Ontario, Canada N4S 7Z6

Tel: (519) 539-9892 Telex: 064-74117

Products: electronic control room, instrumentation and electronic field-mounted instrumentation, primarily for process-control industries.

### FISHER GAUGE LTD.

Box 179

Peterborough, Ontario, Canada K9J 6Y9

Tel: (705) 745-0567 Telex: 06-962836

**Products:** precision die-castings, assembly machines to produce printed circuits.

### THE FOXBORO CO. LTD.

707 Dollard Avenue LaSalle, Quebec, Canada H8N 1S5

Tel: (514) 366-4210 Telex: 055-66302

**Products:** electronic controls and instrumentation, including control systems, converters, event recorders, gauges, indicators, and meters.

# GANDALF DATA COMMUNICATIONS LTD.

Gandalf Building, Gandalf Plaza

9 Slack Road

Ottawa, Ontario, Canada K2G 0B7

Tel: (613) 225-0565 Telex: 053-4728

Products: telecommunications equipment specializing in limited distance digital data transmission equipment; packet switching interfaces, multiplexers, and high-speed modems; LDS 100, 200, 300 and LDM 404 series of units and the PACX (private automatic computer exchange); PIN (private intelligent network) 9102, 9103 and "Supermodem".

# GARRETT MANUFACTURING LTD.

255 Attwell Drive Rexdale, Ontario, Canada M9W 5B8

Tel: (416) 675-1411 Telex: 06-968549 TWX: 610-492-4352

Products: temperature control systems for aircraft cabins, crew compartments; electronics bays; windshields; emergency locator beacons and personal locator beacons; flight instrument test sets; custom thin and thick film hybrid micro-circuits; electric propulsion systems for ground vehicles; sub-contract manufacture of electronic assemblies to other company design information.

### **GEAC CANADA LTD.**

350 Steelcase Road West Markham, Ontario, Canada L3R 1B3

Tel: (416) 495-0525 Telex: 06-22874

Products: medium to large online computer systems handling up to hundreds of terminals with mass storage billions of bytes; complete systems available for on-line banking, library circulation, pharmacy prescriptions, school board administration, order entry and inventory control; and word processing.

### **GEBETEX INC.**

1625 Chabanel West, Room 980 Montreal, Quebec, Canada H4N 2S7

Tel: (514) 382-6120

Products: hand-held metal detector "Lymps 76" for airport, prison and police security; microwave burglar alarm systems; circuit board mounting; custom-built equipment.

# **GELECO ELECTRONICS LTD.**

2 Thorncliffe Park Drive, Unit 28 Toronto, Ontario, Canada M4H 1H1

Tel: (416) 421-5631

Products: RF edgewound coils; RF tube coils; RF contactors; tower lighting chokes; lightning chokes; MMB heavy-duty switches; plug-in meter inserts; phase sampling loops; complete antenna tuning and phasing equipment; broadcast antenna and studio design; phase and current sampling transformers.

### GEN-TEC INC.

2625 Dalton Street Quebec, Quebec, Canada G1P 3S9

Tel: (418) 651-8000 Telex: 051-31591

**Products:** peak load stabilizers; demand control systems; TEA CO<sub>2</sub> laser for educational, industrial and research use; joulemeters; HV probe.

### **GEONICS LTD.**

1745 Meyerside Drive Mississauga, Ontario, Canada L5T 1C5

Tel: (416) 676-9580 Cable: GEONICS

Products: geophysical instrumentation including lightweight portable electromagnetic detectors; VLF electromagnetic units; horizontal-loop electromagnetic units with automatic readout; airborne VLF electromagnetic exploration systems; high-power, deep-penetration LF electromagnetic systems; resistivity profiling instrumentation; one-man dipole electromagnetometer; general electronics.

### **GEOPROBE LTD.**

5-41 Horner Avenue Toronto, Ontario, Canada Tei: (416) 252-5775

Cable: GEOPRO-TORONTO

Products: multi-frequency electromagnetic geophysical survey systems for ground exploration related to uranium, geothermal energy sources, ground-water, minerals and stratification mapping.

# **GEORGE KELK LTD.**

48 Lesmill Road Don Mills, Ontario, Canada M3B 2T5

Tel: (416) 445-5850 Telex: 06-966670

Cable: KELLEX TORONTO

Products: steel mill hot slab and ingot dimension gauges and sensors for on-line process control, including necessary software; rolling mill tensiometers; AC line-voltage regulators; zwarts-type series of electronic wave/tide and water-level gauges; load cells for roll-force measurement in rolling mills.

# GLENAYRE ELECTRONICS LTD.

1551 Columbia Street North Vancouver, British Columbia, Canada V7J 1A3

Tel: (604) 980-6041 Telex: 04-352520

**Products:** power supplies; regulated DC-DC converters supplies for a wide range of railroad, telecommunications and industrial applications; radio telephone equipment: MTS/

IMTS 2805 paging terminals 1 to 12 channels; MTS/IMTS 2805 mobile telephone control heads; microprocessor based status/data mobile radio control equipment; DTMF microprocessor based automatic control head; sub-audible encoder/decoder boards; mobile and base station DTMF encoders; fixed-route vehicle location and identification systems and equipment for railroad, rapid transit and bus systems; computer-controlled automatic dialer.

# GOODWOOD DATA SYSTEMS LTD.

P.O. Box 210 150 Rosamond Street Carleton Place, Ontario, Canada K7C 3P4

Tel: (613) 257-3610 Telex: 053-3593

Products: GDS 300 controller — multi-terminal display controller; GDS 232 monitor — RS-232C, or CCITT equivalent, monitor; GDS 105 diesel engine monitor — diesel diagnostics monitor; air traffic control system; hydrological systems; computer assisted learning systems; radar/satellite correlated weather forecasting system.

# GRAPHIC CONTROLS CANADA LTD.

Herbert Street P.O. Box 5500 Gananoque, Ontario, Canada K7G 2Y7 Tel: (613) 382-2108

Tel: (613) 382-2108 Telex: 066-3216

**Products:** disposable electrodes for electrocardiographs.

# GUILDLINE INSTRUMENTS LTD.

Churchill Road Smiths Falls, Ontario, Canada K7A 4S9 Tel: (613) 283-3000 Telex: 053-3028

Products: electrical and temperature measuring instruments; voltage and resistance standards; AC/DC transfer standard current and potential transformer test sets; oceanographic instrumentation for pressure, depth conductivity and salinity.

# HALLCRAFT ELECTRONICS LTD.

1760 Sargent Avenue Winnipeg, Manitoba, Canada R3H 0C7

Tel: (204) 786-5846

Products: communication systems for the restaurant and fast-food industry; custom assembly facilities; install, service communication/electronic systems and complete motion picture theatre and school installations.

# HAMILTON ENGRAVING CO. LTD.

P.O. Box 181, Station B 24 Clark Avenue Hamilton, Ontario, Canada L8L 5J8 Tel: (416) 527-0718

**Products:** design of printed circuit boards; printed circuit boards; specialty plating — precious metals; machine engraving.

# HAMMOND MANUFACTURING CO. LTD.

394 Edinburgh Road North Guelph, Ontario, Canada N1H 1E5

Tel: (519) 822-2960 Telex: 069-56523

**Products:** transformers; chokes; saturable reactors; sheet metal cabinets, consoles, cubicles, racks, chassis — in all ranges and sizes for the electronics and electrical industries.

# HARBOUR INDUSTRIES (CANADA) LTD.

460 Normandie Farnham, Quebec, Canada V2N 1W4

Tel: (514) 293-5304

Products: braided shielding; coaxial cable; hook-up wire with Teflon insulation; extrahigh-temperature cables; special wire for nuclear-reactor cores.

### HARCO ELECTRONICS LTD.

740 Century Street Winnipeg, Manitoba, Canada R3H 0M1

Tel: (204) 786-6534 Telex: 07-57690

Products: medical electronic monitoring and resuscitative equipment including: cardialert monitors; diagnostic ECG machines, ECG activated cardialert monitors; DC defibrillator with and without synchronizer; fully equipped emergency crash carts; pulsemeters; broad range of pregelled disposable electrodes, and semi-disposable electrodes; patient cable sets of all types; dispersive electrodes for electrosurgery and cable sets, adult and pediatric size; dental instrument for diagnosing and monitoring periodontal disease (Periotron): standard electrocardiograph instrument.

# HERMES ELECTRONICS LTD.

P.O. Box 1005 Dartmouth, Nova Scotia, Canada B2Y 4A1

Tel: (902) 466-7491 Telex: 019-21744

**Products:** HF antennas; ionospheric sounder equipment; oceanographic buoys and devices; sonobuoys.

HONEYWELL LTD. 740 Ellesmere Road Scarborough, Ontario, Canada M1P 2V9

Tel: (416) 293-8111 Telex: 065-25170

Products: solid-state electric heat controllers, electric heat thermostats, switching relays, lighting control systems, hydronic valves, limit controls, electro-optic overfill level controls.

# HOTPACK (CANADA) LTD.

Division of Kirby Technical Sales Inc. 3640 Weston Road, Unit 7, Weston, Ontario, Canada M9L 1W2

Tel: (416) 749-7300

**Products:** designers and manufacturers of controlled environment and laboratory test equipment for research, industry, education and medicine.

# HUNTEC ('70) LTD.

25 Howden Road, Unit 8 Scarborough, Ontario, Canada M1R 5A6

Tel: (416) 751-8055 Telex: 06-963640

Cable: HUNTOR TORONTO

Products: FS-3 portable seismograph for overburden engineering studies; induced polarization instruments including microprocessor IP receivers, and low and high-power transmitters for mineral prospecting and resistivity applications; surface and deeptowed marine seismic profiling systems for seabed and subbottom engineering and exploration.

**Services:** marine seismic profiling services for seabed engineering studies and resource inventory.

### HYLOGIC INC.

70A Brunswick Boulevard Dollard-des-Ormeaux, Quebec, Canada H9B 2C5

Tel: (514) 683-9555

**Products:** single and double-sided printed circuit boards.

# IRD MECHANALYSIS LTD.

333 Barton Street East Stoney Creek, Ontario, Canada L8E 2L1

Tel: (416) 662-7577 Telex: 061-8453

**Products:** vibration monitoring and analyzing equipment.

### ITT BARTON INSTRUMENTS

3840 - 11A Street North East Calgary, Alberta, Canada T2E 6M6

Tel: (403) 276-8164 Telex: 038-21536

**Products:** process instrumentation, including electronic temperature transmitters, electrical pulse transmitters.

# ITT CANNON ELECTRIC CANADA

A Division of ITT Industries of Canada Ltd. Four Cannon Court Whitby, Ontario, Canada L1N 5V8

Tel: (416) 668-8881 Telex: 02-2250

Products: electrical/electronic multi-contact connectors for commercial, nuclear, subsea, solar, down-hole mining and drilling, geophysical/seismic, military and aircraft use.

# ITT COMMUNICATIONS

A Division of ITT Industries of Canada Ltd. 175 Dawson Road Guelph, Ontario, Canada N1H 1A1

Tel: (519) 821-2000 Telex: 02-956547

Products: telephone sub-sets, key telephone equipment; telephone carrier equipment; telex and broadband switching; data telephones; central office peripheral switching equipment; subscriber multiplexing systems; subscriber loop de-

vices; postal mechanization; letter coding desks; letter sorting machines; mail conveyor systems; and document sorters.

# INAX INSTRUMENTS LTD.

P.O. Box 6044, Station J Ottawa, Ontario, Canada K2A 1T1

Tel: (613) 829-5068 Telex: 053-3506 Cable: INAXIN

Products: X-ray fluorescence spectrometers; uranium survey instruments, X and gamma-ray spectrometers; nuclear instruments; computer compatible magnetic tape readers; portable X-ray fluorescence analyzer for in-situ analyses of materials such as geophysical samples and metals.

# INTERA ENVIRONMENTAL CONSULTANTS LTD.

406 - 7015 Macleod Trail Calgary, Alberta, Canada T2H 1X9

Tel: (403) 253-8895 Telex: 03-824537

Products: airborne sensors and data acquisition systems for the environmental and resource sciences, research, monitoring and surveillance; surface environmental sensors and data acquisition systems; data processing and analysis; groundwater contamination and airquality engineering and consulting services.

# INTERCONTINENTAL DATA CONTROL CORP. LTD. (INTERDACO)

2373 Stevenage Drive Ottawa, Ontario, Canada KIG 3W1

Tel: (613) 733-4440 Telex: 053-4274

Products: time division multiplex (TDM) systems; frequency division multiplex (FDM) systems; 24-channel terminals to all CCITT recommendations: 18-channel terminals to North American standards; singlechannel subscriber sets; speech plus duplex systems: data sets: limited-distance modems: DC-DC converters: telegraph power supplies; hubbing systems; regenerative repeaters; telegraph sequential selectors; polar adapters; remote loop-back devices; special telegraph test sets: telex autodiallers; patch and test racks; 2-4 wire adapters; 2-4 wire terminating sets; line conditioning equipment, EIA current converters etc.

# INTERNATIONAL MOBILE DATA INCORP.

10110 Shelbridge Way Richmond, British Columbia, Canada

Tel: (604) 278-3556 Telex: 04-355865

Products: mobile data systems including mobile data terminals operating over radio systems in UHF/VHF, at 4800 baud. Associated base station controllers and communications controllers for network control. The units are designed for rugged vehicular environments.

# INTERNATIONAL SYSTCOMS LTD.

4900 Fisher Street Montreal, Quebec, Canada H4T 1J6

Tel: (514) 735-6441 TWX: 610-422-3065

**Products:** VHF and UHF radio telephone equipment including mobile, portable, fixed station and rural radio.

# INTERNATIONAL TECHNICAL PRODUCTS (CANADA) LTD.

7 Bovis Drive Pointe-Claire, Quebec, Canada H9R 4W3

Tel: (514) 695-8130

Telex: 05-821-529

Cable: INTECHPRO-PCLR

Products: air traffic control systems including radar approach control, fixed and mobile control towers, air navigation aids such as TACAN, etc., X-ray baggage inspection systems, radio and TV transmitters.

# INTERNAV LTD.

Point Edward Marine & Industrial Park P.O. Box 1261 Sydney, Nova Scotia, Canada B1P 6K3

Tel: (902) 539-0660

**Products:** Loran C navigating equipment.

### JOHNSON MATTHEY LTD.

110 Industry Street Toronto, Ontario, Canada M6M 4M1

Tel: (416) 763-5111 Cable: MATTHEY

**Products:** contacts; platinum wear-resistance welding products; silver brazing alloys.

### KONAR CORP.

123 Manville Road Scarborough, Ontario, Canada M1L 4J8

Tel: (416) 751-5980 Telex: 06-363542 TWX: 610 492 2728

Products: printed circuit

boards.

# LAB-VOLT LTD.

5370 - 13th Avenue Rosemont, Quebec, Canada H1X 2X8

Tel: (514) 725-9552 Telex: 05-25415

Products: power supplies; measuring devices; RLC loading units; electromechanical systems (motor/generator); control systems utilizing various components for the teaching of controls as they relate to elec-

tric power technology; mobile training laboratories; digital trainers; electronic teaching systems; computer technology.

# LANICO INDUSTRIES LTD.

P.O. Box 398 Don Mills, Ontario, Canada M3C 2S7

Tel: (416) 438-6465 Telex: 065-25461

Products: electronic controls and monitoring equipment; pH measurement and control equipment; electronic teaching aids; solid-state switches; test equipment; liquid level controls; water-quality monitors.

### LAZER-TECH LTD.

235 Nugget Avenue Scarborough, Ontario, Canada M1S 3L3

Tel: (416) 291-7727 Telex: 065-25308

**Products:** printed circuit boards; custom silk screening.

# LEAK "X" DETECTION DEVICES LTD.

215 Colonnade Road Ottawa, Ontario, Canada K2E 7K3

Tel: (613) 225-9508

Telex: 053-4379 Hambro, Ott. Cable: LEAKEX OTTAWA

Products: petroleum leak detection systems; movement indicators for structures or geophysical applications and studies; combustible and toxic gas and vapour detection systems; oil spill indicators and tracking buoys; buried utility protection systems.

# LEBLANC & ROYLE COMMUNICATIONS TOWERS LTD.

P.O. Box 880 514 Chartwell Road Oakville, Ontario, Canada L6J 5C5

Tel: (416) 844-1242 Telex: 06-982226 TWX: 610-495-2676

Products: communications towers; antenna performance measurements; heavy microwave and television transmission towers, both guyed and self-supporting; complete installation, maintenance and inspection service.

# LEECRAFT INDUSTRIES LTD.

2050 Ellesmere Road, Units 1 & 2, Scarborough, Ontario, Canada M1H 3A9

Tel: (416) 439-6320 Telex: 065-25428

Products: light indicator assemblies; energy emitter and light sources; lamp sockets and assemblies; telephone cable assemblies; custom electronic/electrical assembly.

# LEIGH ENGINEERING SYSTEMS

2680 Queensview Drive P.O. Box 6320 Ottawa, Ontario, Canada K2A 3Y5

Tel: (613) 820-9720 Telex: 053-4129

Products: display and control systems; flight information display systems; vessel traffic management systems; air traffic control systems.

**Services:** system analysis, design, implementation; project management, engineering and software life-cycle support.

### LEIGH INSTRUMENTS LTD.

Industrial Products Division 350 Weber Street North Waterloo, Ontario, Canada N2J 3H6

Tel: (519) 884-4510

Telex: 069-5440

**Products:** component products - loud speakers (electrostatic, permanent magnetic); transformers (power, audio); stereo and hifi sound systems; audio amplifiers and broadcast paging equipment. Special products — shipboard navigational systems (plotting tables, sonar recorders); airborne data recorders; meteorological equipment (ceilometer equipment, transmissometers, runway visual range computers); custom manufacturing. Security products — portable and walkthrough explosive detectors; metal detectors; narcotics detectors. Postal products automated postal systems (optical character recognition, video character recognition, automatic sortation, electronic optical scanning devices, software packages and peripheral. inkjet printer, bar code reader devices). Communications products — telex and computer I/O terminals.

### LEIGH INSTRUMENTS LTD.

Avionics Division P.O. Box 82 Carleton Place, Ontario, Canada K7C 3P3 Tel: (613) 257-3883/

(613) 238-4400 Telex: 053-4148

Products: avionics systems; airfoil delivery systems, crash position indicators, flight data recorders, contained crash recorders, deployable crash recorders, cockpit voice recorders; avionics flight instrumentation: altimeters, mechanical strain recorders, ice detectors; specialized navigation instruments: safety and marker beacons, satellite beacons, radio detection (VHF) equipment, display and control sys-

tems, flight information display systems, vessel traffic management systems, radar digitizers, target trackers.

Services: ground support and test equipment; field maintenance, repair and overhaul; test and calibration services; technical writing, illustration.

### LEIGH INSTRUMENTS LTD.

Frequency Controls Division/ C.R. Snelgrove Company 141 Bond Avenue Toronto, Ontario, Canada M3B 1M2

Tel: (416) 447-8531 Telex: 069-66626

Products: quartz crystals; temperature controlled crystal ovens; filter ovens crystal filters; monolithic filters; packaged oscillators; frangible switches; frequency synthesizers; glass-to-metal hermetic seals; stand-offs; multi-terminal headers; crystal, transistor and diode bases and end seals; and nuclear radiation resistant connectors.

### LEITCH VIDEO LTD.

705 Progress Avenue Unit 46 Scarborough, Ontario, Canada M1H 2X1

Tel: (416) 438-5060 Telex: 06-969682

**Products:** television and broadcast equipment, master clock

systems.

# LINDSAY SPECIALTY PRODUCTS LTD.

50 Mary Street West Lindsay, Ontario, Canada K9V 4S7

Tel: (705) 324-2196 Telex: 0-6962-860

**Products:** VHF and UHF domestic and CATV antennas; CATV line splitters and couplers; CATV directional multi-

taps; complete line of CATV passive devices including matching transformers; and splitters; a complete line of CATV drunk distribution and apartment amplifiers (one- and two-way); subscriber cordless, corded, and V to U converters.

# LINEAR TECHNOLOGY INC.

3435 Landmark Road Burlington, Ontario, Canada L7M 1T4

Tel: (416) 335-2996 Telex: 061-8525 Cable: LINEARBUR

**Products:** special and linear monolithic integrated circuits.

### LISLE-METRIX LTD.

49 Sheffield Street Toronto, Ontario, Canada M6M 3E5

Tel: (416) 249-9151

**Products:** electronic process control equipment.

# LITTON SYSTEMS CANADA LTD.

25 Cityview Drive Rexdale, Ontario, Canada Tel: (416) 249-1231

Telex: 06-989406 TWX: 610-492-2110 Cable: LITTCAN

Products: airborne inertial navigation systems; airborne area navigation systems; special purpose airborne computer systems; tactical data systems; air traffic control and ground controlled interception training simulators and other special purpose training simulators; automatic, mobile, portable and factory test equipment; airborne search radar; self-contained flight-inspection systems; flat panel multi-function cockpit displays; command, control and communications systems; and integrated security systems.

# **LUMONICS RESEARCH LTD.**

105 Schneider Road Kanata, Ontario, Canada K2K 1Y3

Tel: (613) 592-1460 Telex: 053-4503

Products: high energy pulsed TEA CO<sub>2</sub> lasers for spectroscopy, materials research, propagation studies and plasma/fusion research; lasers operating with such gases as carbon monoxide, hydrogen fluoride, hydrogen bromide and deuterium fluoride; industrial lasers for use in production marking of a variety of nonmetallic surfaces; excimer UV/VIs pulse lasers for research.

### MCM COMPUTERS LTD.

6700 Finch Avenue West, Suite 600 Rexdale, Ontario, Canada M9W 5P5

Tel: (416) 675-1353 Telex: 06-989293

**Products:** desk top APL micro computer systems.

# MA ELECTRONICS CANADA LTD.

3135 Universal Drive Mississauga, Ontario, Canada LX4 2E7

Tel: (416) 625-4605 TWX: 610-492-4317

Products: microwave products for marine and communication purposes; isolators; circulators; switches; flanges; standard plumbing; solid-state control devices; amplifiers; duplexers; thick and thin-film hybrid microcircuits; low noise amplifiers; satellite earth stations; microwave subsystems.

# MacDONALD, DETTWILER & ASSOCIATES LTD.

10280 Shellbridge Way Richmond, British Columbia, Canada V6X 2Z9

Tel: (604) 278-3411

Telex: 04-355599

Products: remote sensing data acquisition systems; satellite ground stations for reception and processing of earth resources from LANDSAT data; meteorological data systems; air/shipborne and submersible data acquisition systems; image analysis systems for classification and precision registration of LANDSAT data; digital data acquisition systems for environmental sensing; synthetic aperature radar; data communications systems for: airline flight planning and dispatch, public safety, realtime weather information, vehicular data terminals; remote job entry terminals.

# McCURDY RADIO INDUSTRIES LTD.

108 Carnforth Road Toronto, Ontario, Canada M4A 2L4

Tel: (416) 751-6262 Telex: 06-963533 Cable: MACMETAL

Products: complete broadcast audio line including solid-state consoles, production centres, components, packages and accessories; solid-state intercom systems; pre-wired jackfields; audio distribution systems; audio switchers, consoles, amplifiers and speaker units for educational systems.

### MCNEILL ELECTRONICS LTD.

19 Colville Road Toronto, Ontario, Canada M6M 2Y2

Tel: (416) 247-7429

**Products:** transformers — toroidal, pot-core, RF; chokes.

# McPHAR GEOPHYSICS

55 Tempo Avenue Willowdale, Ontario, Canada M2H 2R9

Tel: (416) 497-1700 Telex: 065-25305 Cable: McPHAR TORONTO

Products: airborne, ground and drill hole geophysical instruments for minerals and petroleum exploration; portable proton procession and fluxgate magnetometers; portable scintillometers and gamma ray spectrometers; airborne multichannel spectrometers; drill hole logging systems; airborne and ground electromagnetic systems; induced polarization and resistivity equipment; analog and digital recording systems; minicomputer data acquisition systems.

# McQUEEN TECHNOLOGY CORP. LTD.

581 Woolwich Street Guelph, Ontario, Canada M1H 7A1

Tel: (519) 836-1010

**Products:** line-monitoring equipment.

### MAGNA DIGITRONICS INC.

33 East 7th Avenue Vancouver, British Columbia, Canada V5T 1M4

Tel: (604) 873-4671 Cable: MAGTRONICS

**Products:** electronic alarm and monitoring systems.

# MAGNA INTERNATIONAL INCORP.

280 Rayette Road Concord, Ontario, Canada L4K 1B1

Tel: (416) 669-4484 Telex: 06-964608

Products: electronic chassis and sub-assemblies for aerospace; aluminum dip brazed assemblies; machined pure beryllium; cartridge and propellant activated devices for aircraft escape systems.

### MAGNETIC METALS LTD.

10 Spalding Drive Brantford, Ontario, Canada N3T 5T3

Tel: (519) 753-8675 TWX: 610-379-0107

**Products:** laminations for electric motors and transformers.

# MALLORY BATTERY CO. OF CANADA LTD.

2333 North Sheridan Way Mississauga, Ontario, Canada L5K 1A7

Tel: (416) 823-4410 Telex: 06-982253

**Products:** primary throwaway batteries, military and commercial; special battery packs for military radios.

### MALLORY COMPONENTS

A Division of Emhart Canada Ltd.

222 Dixon Road Weston, Ontario, Canada M9B 2M2

Tel: (416) 244-4239

Products: complete range of aluminum and tantalum electrolytic capacitors for all applications, electromechanical tuning devices; inductuners — military.

### MALLORY COMPONENTS LTD.

1079 Parkinson Road Woodstock, Ontario, Canada N4S 7W8

Tel: (519) 539-4891 Telex: 064-74132

**Products:** VHF tuning device used in very-high-quality radio receivers.

# MARK PRODUCTS LTD.

1108 - 55th Avenue NE Box 73, Stn. "M" Calgary, Alberta, Canada T2P 2G9

Tel: (403) 275-3544

**Products:** seismic cables and arrays.

# MATROX ELECTRONIC SYSTEMS LTD.

Box 56, Ahuntsic Station Montreal, Quebec, Canada **H3L 3N5** 

Tel: (514) 481-6838 Telex: 05-825651

**Products:** alphanumeric and graphic mini and micro controllers; microcomputers.

# MAXTOWER CO. LTD.

5 Edmondson Street Box 277 Brantford, Ontario, Canada N3T 5M8

Tel: (519) 752-6501 Telex: 061-88135

**Products:** radio and television towers and mounting hardware.

# R.C. MAYBEE LTD.

P.O. Box 40 Oakville, Ontario, Canada L6J 4Z5

Tel: (416) 637-6261

**Products:** polygauge model C thickness sensor.

# MECHRON ENGINEERING PRODUCTS LTD.

2437 Kaladar Avenue Ottawa, Ontario, Canada Tel: (613) 733-3855 Telex: 053-4271

**Products:** auxiliary and primesource power systems for telecommunications.

# MECHTRONICS RESEARCH CORP.

1727 West Second Avenue Vancouver, British Columbia, Canada V6J 1H8

Tel: (604) 736-2671

Products: marine controls and instrumentation; industrial controls; data processing equipment; acoustical instrumentation.

### MEGA SYSTEM DESIGN LTD.

1766 Midland Avenue Scarborough, Ontario, Canada M1P 3C2

Tel: (416) 751-1935

**Products:** custom designed

electronic devices; electromechanical and specialized custom machinery and equipment; microwave industrial dryers; microwave moisture sensors; special-purpose applicator chambers and power supplies; custom small precision machinery.

# MESOTECH SYSTEMS LTD.

1174 Welch Street North Vancouver, British Columbia, Canada V7P 1B2

Tel: (604) 980-3474 Telex: 04-352773

**Products:** underwater acoustic equipment, including sonar, positioning systems, underwater telephones.

# MICRODYNE ELECTRONICS INC.

13532 King George Highway Surrey, British Columbia, Canada V3T 2T9

Tel: (604) 584-8508

**Products:** moisture-detection equipment for veneer and lumber — dry and green; computerized process-control systems for the forest industry.

### MICROTRONIX SYSTEMS LTD.

120 Bessemer Road London, Ontario, Canada N6E 1R2

Tel: (519) 681-3430

**Products:** custom-designed and built equipment for the telephone industry.

### MICROWAVE TECHNOLOGY

Division of Winterhaven Industries Ltd. 7512 Bath Road Mississauga, Ontario, Canada L4T 1L2

Tel: (416) 677-8181

**Products:** industrial microwave systems; industrial ovens; microwave survey (leakage) meters; microwave power

sources; slotted lines; terminations; transitions.

# MIDLAND SOUND SYSTEMS CO. LTD.

225 Nugget Ave., Units 4-10, Scarborough, Ontario, Canada, M1S 3L2 Tel: (416) 291-7304

Products: Loudspeaker

Telex: 065-25391

systems

# MILLER COMMUNICATIONS SYSTEMS LTD.

300 Legget Drive Kanata, Ontario, Canada K2K 1Y5

Tel: (613) 592-3020 Telex: 053-4164

Products: low cost satellite ground stations; voice and data modem equipment; forward error correcting coding equipment; phase lock loop receivers; TV multiplexer; teleconferencing systems via satellite; HF radio receivers; TDMA channel equipment; defense-related electronics.

# MILLTRONICS LTD.

730 The Kingsway Peterborough, Ontario, Canada K9J 6W6

Tel: (705) 745-2431 Telex: 06-962851

Products: alarms; converters; detectors; feed-rate control system; flow metering; level measuring; monitors; tachometers; tilt switches; transducers.

# MIRTONE INDUSTRIES LTD.

425 Alness Street Downsview, Ontario, Canada M3J 2H4

Tel: (416) 667-1122 Telex: 06-217501

**Products:** amplifiers, audio equipment, supervisory controls.

# MITEC ELECTRONICS LTD.

896 Montee de Liesse

Section 17/18 Montreal, Quebec, Canada H4T 1N8

Tel: (514) 334-9140 and (514) 731-6027 TWX: 610-421-3572

U.S. SALES OFFICE: 15 Commerce Street Williston, Vermont 05495 U.S.A.

Tel: (802) 864-0064

Products: design and make microwave components and subsystems for the telecommunications industry, satellite communications, and military applications.

# MITEL CORP. LTD.

P.O. Box 13089 Kanata, Ontario, Canada K2K 1X3

Tel: (613) 592-2122 Telex: 053-4596 TWX: 610-562-8529 Cable: MITELCAN

**Products:** telephone signalling converter equipment (including tone to pulse); DTMF and MF receivers; tone generators, toll denial system; speed dialer system; key system intercom; line event recorder printer; line event displays: R2 forward and backward receivers, rural telecoms equipment; EPABX; security equipment; CMOS integrated circuits including: Telecom LSI, microprocessor and memory, interface, and display; and thickfilm hybrid Telecom circuits.

# A.R. MONTEITH (77) LTD.

2615 Wharton Glen Avenue Mississauga, Ontario, Canada L4X 2B1

Tel: (416) 277-0343 Telex: 06-961247

**Products:** resists for printed circuits.

MOTOROLA CANADA LTD. 3125 Steeles Avenue East Willowdale, Ontario, Canada M2H 2H6

Tel: (416) 499-1441 Telex: 02-29944 Cable: MOTOROLA

Products: VHF and UHF mobile radio products including base, mobile, portable and paging equipment and accessories; VHF and UHF radio relay products including point-to-point multi-channel equipment and accessories; alarm and control system.

# MUIRHEAD SYSTEMS LTD.

50 Galaxy Boulevard, Unit 4 Rexdale, Ontario, Canada M9W 4Y5

Tel: (416) 675-7450 Telex: 06-989264

Products: custom design and manufacture of graphic processing and facsimile communication systems: facsimile switching systems; meteorological radar remoting; computer facsimile interface; compact airborne and shipboard facsimile transmitters.

# MULTI-ELMAC OF CANADA LTD.

P.O. Box 879 Windsor, Ontario, Canada N9A 6P2

Tel: (519) 966-0162

**Products:** remote radio controls.

# MULTI-VOX LTD.

9967 St. Michel Boulevard Montreal, Quebec, Canada H1H 5G7

Tel: (514) 321-3131

**Products:** intercommunication systems for commercial, industrial, educational and institutional applications; complete line of solid-state commercial amplifiers; sound columns.

### NCR CANADA LTD.

6855 Century Road Mississauga, Ontario, Canada Tel: (416) 826-9000 Telex: 06-960147 **Products:** company designs, develops and manufacturers financial document-processing systems for the international financial community.

### NATIONAL ELECTROLAB LTD.

1536 Columbia Street North Vancouver, British Columbia Canada V7J 1A4

Tel: (604) 985-0511 Telex: 043-52683

Products: AM broadcast: AM RF amplifiers; off-air receivers; telephone instruments: recorder-controller for monitoring of telephone signalling; T1 PCM error generator; T1 cable test set; engineering and installation services: design and manufacture of custom instruments and equipment; repair, overhaul and calibration of electrical and electronic instruments, test equipment, meters, etc., for science, government and industry; electrical metrology lab for precise calibration.

# NATIONAL SEMI-CONDUCTORS LTD.

2150 Ward Street Montreal, Quebec, Canada H4M 1T7

Tel: (514) 744-5507 TWX: 610-421-3362 Cable: NATSEMICO

Products: cadmium sulphide photoconductive cells; cadmium solonoid photoconductive cells; silicon photodiodes; photocell lamp assemblies; silicon phototransistors; photoelectric arrays; optocouplers; silicon solar panels.

# NAUTICAL ELECTRONIC LABORATORIES LTD.

RR No. 1 Tantallon Halifax County, Nova Scotia, Canada BOJ 3J0

Tel: (902) 823-2233/4 Telex: 019-22552

Products: solid-state LF nondirectional radio beacon systems for aeronautical and marine navigation with output powers up to 4 kW radio beacon monitor receivers; automatically tuned LF/MF frequency antenna systems; solidstate broadcast transmitters; LF, MF and HF solid-state communications transmitters.

**NAVTEL LTD.** 

8481 Keele Street Unit 12A Concord, Ontario, Canada L4K 1B1 Tel: 669-9918

TWX: 610 492 0122

Products: data communications test equipment.

### **NEECO CIRCUITS LTD.**

8421 Darnley Road Montreal, Quebec, Canada H4T 1X2

Tel: (514) 733-7181 TWX: 610-421-4483

Products: printed circuit boards; single-sided, doublesided and multi-layers; staked pin backpanels.

# **NEOSID (CANADA) LTD.**

10 Vansco Road Toronto, Ontario, Canada M8Z 5J4

Tel: (416) 251-2831 Cable: NEOSID

**Products:** electronic powered iron and ferrite core components; microwave materials.

### NIFE-POWERTRONIC CORP.

125 Nantucket Boulevard Scarborough, Ontario, Canada M1P 2N8

Tel: (416) 757-5151 Telex: 06-963757

**Products:** DC power supplies, regulated and unregulated; communication type filtered battery chargers; battery chargers for industrial trucks and electric locomotives; line voltage regulators; chargers for engine starting batteries; static inverters; uninterruptible power supply (UPS) systems.

# **NORAM QUALITY CONTROL &** RESEARCH EQUIPMENT LTD.

Dollard-Des-Ormeaux, Quebec, Canada

H9G 1M7

Tel: (514) 694-4522 Telex: 05-822-730

**Products:** electronic equipment for specialized physical testing in pulp and paper industry.

### NORPAK LTD.

Pakenham, Ontario, Canada K0A 2X0

Tel: (613) 624-5336

Products: line of micro computer based display processors for computer graphics and imagery display systems; custom made computer system design and integration; computer software design; visual data processor; micro video processor; PDI Telldon decoders; information provider system.

### NORTHERN TELECOM LTD.

33 City Centre Drive Mississauga, Ontario, Canada L5B 2N5

Tel: (416) 275-0960

TWX: 610-492-4388

Products: common control cross bar telephone switching exchanges; stored program electronic digital and analog telephone switching exchanges; radio relay and coaxial transmission systemslong and short haul; light and heavy route multiplex — digital and analog; private automatic branch exchanges — cross bar and electronic; key telephone systems; business interphone systems; telephone sets business and residential; handsfree telephone sets; tele-

phone head sets — lightweight and standard; coin telephone sets - box and panel; telephone booths; test equipment; connecting blocks; loading coils; filters; protectors; power plants; amplifiers. Fibre optics systems for telecommunications applications. Product trade names include the SL-1, a digital business communications system; Pulse — a PBX; Imagination, Contempra and Logic telephone apparatus and Companion, a handsfree speakerphone; DMS, a complete family of digital transmission and central office switching exchanges; and TOPS, the traffic operator position system, a member of the SP-1 family of switches.

# **NOVATRONICS OF CANADA** LTD.

P.O. Box 610 677 Erie Street Stratford, Ontario, Canada N5A 6V6

Tel: (519) 271-3880 TWX: 610-355-8717

Products: high performance stepper motors with special shafts for computer and printer applications; electromagnetic wheel-type digital indicators for high readability requirements; power failure flags; fast response industrial DC motors and amplifier systems for automatic positioning; synchros, servos and DC control motors; precision electromechanical components.

# **NU RAD INSTRUMENTATION**

93 Brahms Avenue Willowdale, Ontario, Canada M2H 1H5

Tel: (416) 493-8788

**Products:** radiation counter used in monitoring radon gas in mines.

# OMICRON DATA SYSTEMS LTD.

159 Oneida Drive Pointe Claire, Quebec, Canada Tel: (514) 733-7166 Cable: OMIDASYS

Products: telephone dial access radio paging systems; consulting services in data communications, digital computer systems, design and project management; security systems; automatic dialer.

### OPTOTEK LTD.

1283 Algoma Road Ottawa, Ontario, Canada K1B 3W7

Tel: (613) 746-3100 TWX: 610-562-1916

Products: solid-state light emitting device research, development production for applications such as alphanumeric displays, film and paper annotation, failure warning, integral lighting lamps, card and tape readers; light emitting diodes (solid-state) high-resolution multi-mode matrix displays; electronic subsystems for the above.

# OTTAWA PRINTED CIRCUITS LTD.

1120 Morrison Drive Ottawa, Ontario, Canada K2H 8M7

Tel: (613) 828-2565

**Products:** double-sided printed circuits, plated through the hole.

# OVAAC8 INTERNATIONAL (CANADA) INC.

4800 Dufferin Street Downsview, Ontarlo, Canada M3H 5S9

Tel: (416) 661-5088 Telex: 06-217652

**Products:** digital image processing and information management and control systems for analysis, classification and radiometric/geometric correc-

tion of satellite and aircraft digital image data. Systems provided in turnkey packages with wide range of data input/ output equipment options. High-speed programmable processor to improve performance of minicomputers. High-speed processor for special-purpose data processing also requiring complex control and data I/O manipulations.

# **OWL INSTRUMENTS LTD.**

61 Alness Street Downsview, Ontario, Canada M3J 2H2

Tel: (416) 661-1586 Cable: OWLINST

Products: radiofrequency lesion makers; exerpacer automatic heart rate indicators; transcutaneous nerve stimulators; aerobic fitness tester.

# **PWH ELECTRONICS LTD.**

637 College Street Toronto, Ontario, Canada M6H 4E3

Tel: (416) 533-6331

**Products:** master clock and timing devices for radio and television stations; remote control and status reporting.

# PAN CANADA MAGNETICS LTD.

1072 Rangeview Road Port Credit, Ontario, Canada L5E 1H3

Tel: (416) 278-9851 Telex: 06-960159

**Products:** audio magnetic recording tape, including hubwound tape for loading cassettes and cartridges.

### **PAYTON ASSOCIATES LTD.**

85-10 Nantucket Boulevard Scarborough, Ontario, Canada M1P 2N7

Tel: (416) 759-4669 Telex: 06-963792

**Products:** medical electronics, particularly aggregation

modules used in testing blood plasma.

# PERLE SYSTEMS LTD.

135 Sparks Avenue Willowdale, Ontario, Canada M2H 2S5

Tel: (416) 497-2551 Telex: 065-25183

Products: microprocessorbased electronic subsystems, floppy disc recorders; also products made to customer specifications.

### PHILIPS ELECTRONICS LTD.

601 Milner Avenue Scarborough, Ontario, Canada M1B 1M8

Tel: (416) 292-5161 Telex: 065-25100

Cable: PHILIND TORONTO

Products: ground based instrument landing systems and other aeronautical navigational aids; quartz frequency control crystals; incandescent lamps and fluorescent ballasts; wooden furniture products; video display units and related products.

### PHOENIX GEOPHYSICS LTD.

200 Yorkland Boulevard Willowdale, Ontario, Canada M2J 1R6

Tel: (416) 493-6350 Telex: 069-66857

Products: induced polarization units, variable frequency-phase-pulse transient; magnetometers, fluxgate type; VLF-radio EM receivers; resistivity systems; computer-based geophysical data acquisition systems.

### PLANTRONICS LTD.

8110 South Trans-Canada Highway St.-Laurent, Quebec, Canada H4S 1M5

Tel: (514) 331-9102 Telex: 05-825558

**Products:** model 7500 — universal terminal controller; VVSE**T**; Telex control unit.

### PLESSEY CANADA LTD.

300 Supertest Road Downsview, Ontario, Canada M3J 2M2

Tel: (416) 661-3711 Telex: 065-24488

**Products:** key telephone and PABX equipment.

# PRECISION ELECTRONICS COMPONENTS (1971) LTD.

19 Hafis Road Toronto, Ontario, Canada M6M 2V6

Tel: (416) 249-7103 Telex: 06-965654

**Products:** variable resistors, attenuators, trimmer potentiometers, non wire wound; hot moulded, and metal film.

# PRESENTEY ENGINEERING PRODUCTS LTD.

P.O. Box 919 2784 Fenton Road, RR No. 5 Ottawa, Ontario, Canada K1G 3N3

Tel: (613) 822-1251

**Products:** recorder — continuous A/N-TSH-501 reproducer sound; rocket subcommutator; long-range communications terminal; (LRCT) airborne magnetic tape recorder; DC amplifier systems; camera control units; tactical recorder — reproducer sound: continuous marine broadcast rec/rep system; universal remote control systems for forward area tactical radio sets; airborne memoloop tape recording systems; shipborne radio operator control consoles for communications rooms; shipborne signal patch panel systems; airborne photography annotation systems; airborne data logger (pitch and roll); custom design and manufacturing; repair and overhaul.

# PYLON ELECTRONIC DEVELOPMENT CO. LTD.

2300 Victoria Street Lachine, Quebec, Canada H8S 1Z3

Tel: (514) 637-1186

Products: static power supplies; DC-DC converters, inverters; ringers; ring, talk and signal supplies; fuse alarm and meter panels; battery eliminators; aluminum transit cases; meter pulse generators; digital clocks; alarm systems, digital controls; electronic trunk selectors for CAMA and for ROTS applications; custom switching equipment and telephone conferencing equipment; special products including custom assembly and instrumentation; time code generator; uranium detection equipment; radioactive sources; radon and thoron gas generators; antenna switching instruments.

# PHOTOCHEMICAL RESEARCH ASSOCIATES INC.

45 Meg Drive London, Ontario, Canada N6E 2V2

Tel: (519) 676-2950 Telex: 064-7597

Products: pulsed light sources; nanosecond light sources; arclamp systems; integrated arclamp systems; nanosecond fluorometers; pulsed polarimeters; power supplies.

# PLANTRONICS CANADA LTD.

8110 South Service Road Trans Canada Highway St. Laurent, Quebec, Canada H4S 1M5

Tel: (514) 331-9102 Telex: 05-82558

**Products:** data communications equipment, including black boxes, interfacing devices, converters; CRT terminals with modems.

# POLESTAR ANTENNAS LTD.

Hackett's Cove Halifax County, Nova Scotia, Canada BOJ 3J0 Tel: (902) 823-2442

**Products:** radio beacon antennas, for power levels of 25w to 5 Kw.

# POLYTRONICS ENGINEERING LTD.

P.O. Box 325, Station A Rexdale, Ontario, Canada M9W 5L3

Tel: (416) 225-2026

**Products:** power-line monitoring instrument with built-in digital bubble memory (available late 1980).

# **POSITRON INDUSTRIES INC.**

4810 Jean Talon Street West Montreal, Quebec, Canada H4P 2N5

Tel: (514) 731-3715

Products: telephone and telecommunications equipment, including central office equipment such as electronic trunk switch, an 8-by-8 5-wire matrix to replace ROTS (available in July 1980); ringer isolator, fully immune to induced voltages up to 200v, to reduce noise on multiparty lines; teleline isolator, providing up to 64-Kv isolation on telephone lines; telephone conferencing equipment; event registration; electronic locking interface for call directors to replace mechanical locking; data speed converter; mobile radio identifier interface; four-way bridge with solid-state hybrid; standy power unit for extreme environment; bridging amplifier; base station interface; automatic disconnect unit for telegraph; automatic audiometer for periodic self-testing of hearing in high-noise environment industries; system for railways' private communication over open-wire or telephone line.

### PRESTOLITE BATTERY

Division of Eltra of Canada Ltd. 1352 Dufferin Street Toronto, Ontario, Canada M6H 4C6

Tel: (416) 531-2401 Telex: 06-217706 **Products:** batteries.

### **PSB SPEAKERS INC.**

P.O. Box 144, St. Jacobs, Ontario, Canada, N0B 2N0 Tel: (519) 664-2208

Products: loudspeaker

systems

# QUINDAR PRODUCTS LTD.

106 Rayette Road Concord, Ontario, Canada L4K 1B6

Tel: (416) 669-1272 Telex: 06-964574

Products: electronic equipment for remote control supervision and telemetry; multiplexing systems; data modems; communications amplifiers, related equipment and accessories.

### RCA LTD.

Royal Bank Plaza, north tower P.O. Box 161, 23rd floor Toronto, Ontario, Canada M5J 2J4

Tel: (416) 865-7960 Telex: 065-24136 TWX: 610-491-2185

Products: color picture tubes;

photo sensors.

# RMS INDUSTRIAL CONTROLS LTD.

70 Williams Street Port Moody, British Columbia, Canada V3H 2R5

Tel: (604) 461-1315 Telex: 04-353554

Products: microprocessorbased telemetry systems; radio remote controls for industrial equipment; monitoring and supervisory control systems; data acquisition and control systems.

RACAL (CANADA) LTD. 1806 Woodward Drive Ottawa, Ontario, Canada K2C 0P7

Tel: (613) 225-4640 Telex: 053-4187

Cable: RACOTT OTTAWA

Products: HF radio communications systems and ancillary equipment; communications systems; engineering and maintenance services; remote control systems; receiving antenna switching systems; digital time insertion generator/reader units for use with air traffic control recorders; frequency measuring systems.

### RADIONICS LTD.

Radionics Medical Division 5776 Royalmount Avenue Montreal, Quebec, Canada H4P 1K5

Tel: (514) 735-4565 Telex: 05-827558

Products: Digiecho 1000 compact digital echoencephalograph; Digiecho 2000 recording digital echoencephalograph; 3000 echo oculometer; 7000 vascular Doppler analyzer.

# RANTECH ELECTRONICS LTD.

259 Canarctic Drive Downsview, Ontario, Canada M3J 2N7

Tel: (416) 661-9319

**Products:** monitoring and supervisory control systems and components; data acquisition systems; telemetry systems.

### RAYSHIELD LTD.

2630 Royal Windsor Drive Unit 4

Mississauga, Ontario, Canada

L5J 1K7

Tel: (416) 822-6100 Telex: 06-982316

**Products:** steel or copper-mesh RF-shielded enclosures for test labs etc.

# **RAYTHEON CANADA LTD.**

400 Phillip Street Waterloo, Ontario, Canada N2J 4K6

Tel: (519) 885-0110 Telex: 069-5431 TWX: 610-365-3469 Cable: RAYCAN

Products: primary, secondary and weather radar systems and equipment; radar microwave remoting and radar multiplex systems and equipment; analog, digital and scan converted displays: standard and Doppler VOR; distance measuring equipment (DME); microwave systems and equipment, radio, protection switching and supervisory; terrestrial (long haul, high capacity analog and digital) microwave communications systems and earth stations for satellite communications. These include stations for transmission and reception of television, voice and data in both the 6/4 and 14/12 GHz bands.

# RELIANCE TELECOMMUNICATION PRODUCTS LTD.

122 Edward Street St. Thomas, Ontario, Canada N5P 1Z2

Tel: (519) 631-0780 TWX: 610-356-6703

Products: battery chargers; battery eliminators; ringing and tone equipment; inverters; DC to DC converters; PAX and PBX power units; power distribution control equipment and assemblies; static interrupters, ringing plants; test load units; test power supplies; voice frequency line treatment — loop extenders and VF repeaters; analog station carrier products.

### RENFREW ELECTRIC CO. LTD.

349 Carlaw Avenue Toronto, Ontario, Canada M4M 2T2

Tel: (416) 461-3511 Telex: 02-2450

**Products:** resistors — carbon composition, precision wire

wound, power wire wound (fixed and adjustable), molded wire wound; thick film metal glaze, variable carbon and wire wound controls; time delay and industrial relays; wiring devices including wall plates; connectors — flat pin and printed circuit board; terminal strips — barrier.

# RESEARCH INDUSTRIES LTD.

2779 Lake City Way Burnaby, British Columbia, Canada V5A 2Z8

Tel: (604) 420-3030 Telex: 043-54720 TWX: 610-929-1063

**Products:** battery chargers; battery charging power plants; battery eliminators; DC to DC converters; DC to AC inverters; power supplies; switching regulators; UPS systems.

# REUTER-STOKES CANADA LTD.

465 Dobbie Drive Cambridge, Ontario, Canada N1R 5X9

Tel: (519) 623-4880 Telex: 06-95327

**Products**; self-powered neutron detectors and associated electronics; mineral insulated cable; thermocouples; industrial heat stress monitors.

# RICHARD BRANCKER RESEARCH LTD.

27 Monk Street Ottawa, Ontario, Canada K1S 3Y7

Tel: (613) 233-1621 Telex: 053-4761

**Products:** RMS field intensity meter, radon gas detector.

### R-METRICS LTD.

486 Wyecroft Road Oakville, Ontario, Canada L6K 2G7

Tel: (416) 845-6036

Products: nuclear instrumenta-

tion; gamma radiation survey meters; dosimeter chargers; ionization chamber detectors; radiac calibrators; power supplies.

# ROCHESTER INSTRUMENT SYSTEMS LTD. (RISCAN)

915 Kipling Avenue Toronto, Ontario, Canada M8Z 5H4

Tel: (416) 233-6218 Telex: 06-23284

Products: solid-state visual annunciators; electronic trips and alarms; solid-state signal converters and transducers for processing industries and power utilities; industrial temperature monitors; vibration sensors and monitors; uninterruptible power supplies; sequential event recorders.

# ROCKWELL INTERNATIONAL OF CANADA LTD.

Collins Canada Division 150 Bartley Drive Toronto, Ontario, Canada M4A 1C7

Tel: (416) 757-1101 Telex: 02-21130 TWX: 610-492-1375

Cable: COLINRAD TORONTO

Products; airborne radio communications and navigation equipment; airborne, land mobile and fixed base SSB communications equipment; portable manpack and hand-held UHF transceivers; microwave and multiplex equipment; high power short wave broadcast transmitters; maritime HF SSB transceivers with automatic antenna couplers; automatic direction finder-VHF/UHF.

### **ROSS VIDEO LTD.**

P.O. Box 220 9 Plaza Drive Iroquois, Ontario, Canada K0E 1K0

Tel: (613) 652-4889 Telex: 05-811579 **Products:** television production switchers.

### RUSCOM LOGICS LTD.

885 Don Mills Road Don Mills, Ontario, Canada M3C 1W2

Tel: (416) 443-6860 Telex: 06-966825

Products: digitizers; buffered teletypewriter motor controllers; digital frequency recorders; custom engineered computerized process and material control systems; supervisory control and data acquisition systems in hydroelectric, water, waste, oil and gas networks; optical bar code reading systems; materials handling systems.

# SED SYSTEMS LTD.

P.O. Box 1464 23-66 Avenue CN, Saskatoon, Saskatchewan, Canada S7K 3P7

Tel: (306) 244-0976 Telex: 074-2495 TWX: 610-731-1476

Products: complete satellite earth stations for 4/6 and 11/14 GHz systems; specialize in LNA receiver and filter production; aerospace subsystems for balloon, rocket and satellite systems; instrumentation for agricultural implements, telecommunications systems and power line monitoring.

Services: engineering consultants for environmental control of buildings; aerospace and communications systems.

# SAFT BATTERIES LTD.

1361 Huntingwood Drive, Unit 11 Scarborough, Ontario, Canada M1S 3J1

Tel: (416) 298-7322

**Products:** batteries — nickel-cadmium, alkaline, wet-cell.

### SANDER GEOPHYSICS LTD.

250 Hertzberg Road Kanata, Ontario, Canada K2K 1X3

Tel: (613) 592-1301 Telex: 053-4755

Products: digital data acquisition systems for geophysical environmental and technical data recording; high resolution magnetometers; airborne gamma ray spectrometers; airborne cameras for flight path recovery; airborne electromagnetic survey instruments; custom-designed airborne geophysical survey systems; airborne VLF electromagnetic instruments.

# SANDTRON AUTOMATION LTD.

1404 Wallace Road Oakville, Ontario, Canada L6L 2Y2

Tel: (416) 827-8230

**Products:** industrial photoelectric controls for production machinery and conveyors; electronic counters for batch control; also cut-to-length controls.

### SCANNEX INTERNATIONAL

125 Norfinch Drive Downsview, Ontario, Canada M3N 1W8

Tel: (416) 635-9900 Telex: 06-217754

**Products:** closed circuit television; rearview camera.

### SCINTREX LTD.

222 Snidercroft Road Concord, Onfario, Canada L4K 1B5

Tel: (416) 669-2280 Telex: 06-964570

Cable: SCINTREX TORONTO

Products: fluxgate and proton precession magnetometers for surface, drill hole, observatory and airborne use; susceptibility meters for field and lab measurements; CG series quartz gravity meters for prospecting

and geodetic surveys; electromagnetic prospecting systems including tilt-angle systems, moving source and fixed source compensation systems; drill hole electromagnetic compensator systems; helicopter and fixed wing airborne electromagnetic systems; frequency and time domain types induced polarization systems; integral and differential gammaray spectrometers for ground, drill hole and airborne applications; radiometric logging equipment for borehole, carborne and airborne use; neutron-prompt gamma-ray activation facility and borehole logging system; research system for study of mill-site ore grade analysis; AC and DC resistivity equipment; analytical instruments for laboratory and field analysis of vapours, water and solid samples for geochemical purposes; monitoring instrumentation for nuclear power plants.

# SEMCO INSTRUMENTS CO. LTD.

1339 Baseline Road Ottawa, Ontario, Canada K2C 0A7

Tel: (613) 225-1197 Telex: 053-3189

**Products:** scanning electron microscopes and accessories.

### SENTROL SYSTEMS LTD. 4401 Steeles Avenue West

4401 Steeles Avenue West Downsview, Ontario, Canada M3N 2S4

Tel: (416) 661-7000 Telex: 069-65672

Products: Pulp and Paper Div: sensors and control equipment for the pulp and paper industry; overall control systems using mini and micro-computers with modular software and hardware for pulp mills and paper machines; sensors and control

systems for most accurate measurement and control of grammage (basis weight), moisture, caliper, brightness, colour, opacity, reel hardness, grammage. Petroleum Div: control systems for the petroleum industry, mineral processing and data communications.

### SHAW FLEXIBLE TUBES LTD.

25 Bethridge Road Rexdale, Ontario, Canada M9W 1M7

Tel: (416) 743-7111 Telex: 06-989435

**Products:** electronic-instrument wire and cable.

# SHEFFORD ELECTRONICS CORP.

1010 Sherbrooke Street West, Suite 504 Montreal, Quebec, Canada H3A 2R7

Tel: (514) 288-2271 Telex: 055-61370

**Products:** radio direction finding equipment for fixed, mobile and shipborne requirements.

### SHELLCAST FOUNDRIES INC.

10645 Lamoureux Street Montreal, Quebec, Canada H1G 5L4

Tel: (514) 322-3760 Telex: 05-828787

**Products:** precision investment castings for electronics and aerospace industry.

# SINCLAIR RADIO LABORATORIES LTD.

122 Rayette Road, Maple, Ontario, Canada L4K 1B6

Tel: (416) 669-1244 Telex: 06-964598

Products: antennas for all frequencies specially VHF and UHF; low intermod antennas specifically for multicoupling; DME antennas; filters and filter systems particularly for multicoupling with low intermod,

bandpass, low and high pass, band stop, etc.; HF transformers and baluns; active receiver multicouplers; autotuned filters and antenna couplers; diplexers; consulting services on all antenna and filter systems; measurement services for Intermod products, filter characteristics, antenna patterns and impedances.

# SIOC LTD.

3085 Lenworth Drive Mississauga, Ontario, Canada L4X 2G4

Tel: (416) 625-1790 Telex: 06-961172

**Products:** monitoring and control devices for process and power industries.

### S.G. SMALLWOOD LTD.

385 Phillip Street Waterloo, Ontario, Canada N2L 5R8

Tel: (519) 886-4390

**Products:** components custommade to customer specifications, including filters, crossover networks, IF transformers, coils — AF, IF, RF.

### W. SODIN (GRAVITY) LTD

211 Hendon Avenue Willowdale, Ontario, Canada M2M 1A9

Tel: (416) 225-4513

Cable: SODINST TORONTO

**Products:** gravity meters, for mineral and oil exploration and scienific study.

### **SOLA BASIC LTD.**

125 East Drive Bramalea, Ontario, Canada L6T 1B8

Tel: (416) 791-3223 Telex: 06-97798

**Products:** constant-voltage transformers, up to 500 KVa.

# SONA-TECH SECURITY SYSTEMS

Sonoguard Security Systems Ltd.

158 Pitt Street, No. 1 Cornwall, Ontario, Canada K6J 3P4

Tel: (613) 938-1400

**Products:** Sona-Tech portable alarm Model III; Sona-Tech residential security system.

### SONOTEK LTD.

2410-4 Dunwin Drive Mississauga, Ontario, Canada

L5L 1J9

Tel: (416) 828-6810 Telex: 065-24733

**Products:** integrated geophysical survey system; data acquisition systems; digital transducer indicator; digital industrial barometer; radiation integrator; geophysical and meteorological instrumentation.

### SOUTHWELL CONTROLS LTD.

857 West 3rd Street North Vancouver, British Columbia, Canada V7P 1E3

Tel: (604) 980-3688 Telex: 04-352526

**Products:** control systems; tachometers; printed circuit boards.

# SPACE CIRCUITS LTD.

156 Roger Street Waterloo, Ontario, Canada N2J 4A4

Tel: (519) 742-5896 Telex: 069-5126

**Products:** printed circuit boards; striplines; computer back-panels; multilayers; fine line (0.006 lines and spaces) circuits; and "multiwire".

# SPAR AEROSPACE PRODUCTS LTD.

Royal Bank Plaza South Tower, Box 83 Toronto, Ontario, Canada M5J 2J2

Tel: (416) 781-1571 Telex: 065-24240 Cable: SPARCAL TOR Products: satellite communications systems and satellite subsystems including electronics, altitude control systems, deployable solar cell array power generating systems, solar array drives, tracking and power transfer system; telecommunications systems; extendible antennas and structures for spacecraft; infrared acquisition systems; electro-optical systems for remote sensing; power conditioning equipment; earth stations; transponders; microwave relay systems.

# SPARTON OF CANADA LTD.

P.O. Box 5125 100 Elm Street London, Ontario, Canada N6A 4N2

Tel: (519) 455-6320 Telex: 064-5876 Cable: SPARTON

Products: research, development and manufacture of military and commercial electronic products; seven types of passive sonobuoys with a specialized seismic buoy, and four active sonobuoy designs; miniature mobile target; transducers; hydraphones; passive intrusion systems consisting of infrared, magnetic, and seismic sensors. These intrusion devices include datalink units so that systems can be hardwired or wireless linked.

# **SPERRY GYROSCOPE**

A Division of Sperry Inc. P.O. Box 390, Station A Ottawa, Ontario, Canada K1N 8P6

Tel: (613) 728-4681 Telex: 053-3637 TWX: 610-562-1972

Products: time division multiplexers; modular communication control systems; teletest, videographs; laser ceilometers; depth recorders; horizon bars (for shipboard hello operations); temperature monitoring systems; echo sounders; cord-wood modules and cards; head-sets; distortion analysers; message generators; Fox test generators; supervisory control; marine telephone; variosens (water pollution monitor); aircraft flight instruments; marine radars; cable harnesses.

Services: repair and overhaul of air and marine electronics with special emphasis on flight instruments: communications (misc.); communicators (process control); counting and timing devices; event recorders; electro optical and infrared equipment: environment instrumentation and monitoring; geophysical equipment (marine); lasers and ancillary equipment; navigation (marine); oceanography and meteorology detection; radar systems; remote sensing; repair and overhaul services; telegraph equipment; telephone equipment, cable harnesses; sensors.

# SPERRY MARINE SYSTEMS (SPERRY INC.)

P.O. Box 390, Station A Ottawa, Ontario, Canada K1N 8P6

Tel: (613) 728-4691 Telex: 053-3637 TWX: 610-562-1972

**Products:** HF and VHF communications equipment.

# SPERRY UNIVAC DEFENCE SYSTEMS

A Division of Sperry Inc. 130 Albert Street, Suite 1116 Ottawa, Ontario, Canada K1P 5G4

Tel: (613) 237-4423

Products: data processing equipment associated with military requirements for use in distributed processing, fire direction control systems, machinery control and monitoring, communications, weapons and

counter measures, electronic warfare, sonar, image processing, radar, peripheral controllers and navigation for surface and airborne applications; total system, design, manufacturing and test capabilities, for specialized requirements.

# SPILSBURY & TINDALL LTD.

120 East Cordova Street Vancouver, British Columbia, Canada V6A 1L1

Tel: (604) 684-4131 Telex: 04-55482

Cable: SPILTIN VANCOUVER

Products: automatic self-tuning antennas; tuneable whip antennas; antenna tuning units; HF SSB fixed, portable, mobile and marine radiotelephone equipment; LF non-directional radio beacons and automatic beacon antennas; specialized HF antennas; automatic self-tuning antennas and antenna tuning units for service on land, sea and air; VHF and fixed and mobile, VHF marine mobile radio systems; LF and HF monitor receivers.

# SPRAGUE ELECTRIC OF CANADA LTD.

49 Bertal Road Toronto, Ontario, Canada M6M 4M7

Tel: (416) 766-6123 Telex: 06-969658 Cable: TELEFARAD

**Products:** solid molded axial leaded tantalum capacitors; axial monolithic capacitors; power factor corrections capacitors.

### STATICON LTD.

2220 Midland Avenue Scarborough, Ontario, Canada M1P 3E6

Tel: (416) 291-3723 Telex: 065-25211

Products: AC and DC solidstate no-break (UPS) systems: battery power plants and float charger systems for communications applications; battery eliminators; switchgear battery chargers all voltages; plating rectifiers including Electro Foresis Systems all voltages and ratings; battery chargers for turbine and engine starting all ratings; static inverters; DC-DC converters, all voltages; frequency converters, magnetron power supplies; solid-state AC voltage regulators; industrial lift truck battery chargers.

# STEVENS CONTROLS LTD.

20 Arthur Avenue East P.O. Box 446 Renfrew, Ontario, Canada K7V 4A6

Tel: (613) 432-5221

**Products:** bimetallic temperature controls for portable heaters, appliances, etc., also relays.

# STRITE INDUSTRIES LTD.

298 Shepherd Avenue Cambridge, Ontario, Canada N3C 1V1

Tel: (519) 658-9361 Telex: 069-59383

Products: high technology machining service for electronic and mechanical requirements; problem components for advanced products such as inertial guidance gyro components; turbo-charger thrust collars; nuclear reactor hardware; eddy current probes and electronic heat sinks; machining methods include multi-form crush grinding, broaching, electrical discharge machining and thread grinding.

# SYNTHANE-TAYLOR (CANADA) LTD.

23 Commander Boulevard Agincourt, Ontario, Canada M1S 3E7

Tel: (416) 293-4181 Telex: 065-25384

Products: insulators.

### SYSTEMHOUSE LTD.

99 Bank Street, 3rd floor Ottawa, Ontario, Canada K1P 6B9

Tel: (613) 236-9734 Telex: 053-4517

Products: a complete range of information systems services; turnkey minicomputer solutions; computerized systems: cartographic, hospital and business; consulting services; computer programming, systems and data base expertise.

# TECHWEST ENTERPRISES LTD.

3650 Westbrook Mall Vancouver, British Columbia, Canada V6S 2L2

Tel: (604) 224-1113 Telex: 04-507748 Cable: RESEARCHBC

Products: data acquisition units employing 16 mm and 35 mm cameras (e.g., for highway photologging applications); electronic instrument design and manufacture; electro-optical grading, equipment (e.g., apple colour meter).

### **TELE-RADIO SYSTEMS LTD.**

301 Supertest Road Downsview, Ontario, Canada M3J 2M4

Tel: (416) 661-3221 TWX: 610-492-2384

Products: telephone line conditioning equipment; custom communication apparatus; power system protective devices (under-frequency relays, battery ground fault detectors, frequency trend relays; surge arrester tester); solar electric power systems.

### **TELEVOX SYSTEMS INC.**

215 Caron Street Quebec, Quebec, Canada G1K 5V6

Tel: (418) 522-3851

Telex: 05-13311

Products: intercom systems; educational systems — manual and automated; public address systems; intercom amplifiers; amplifiers with stored programs; pre-amplifiers and mixers; intercom duplex amplifiers; private telephone exchange; crossbar switching systems.

# TOWER COMMUNICATIONS CO. (CANADA) LTD.

A Subsidiary of F.P.K. Holdings Ltd.

P.O. Box 1011 375 Lee Street Quebec, Quebec, Canada G1K 5Y1

Tel: (418) 524-5221 Telex: 051-3868

Products: custom designed structural steel towers (guyed and self-supporting) for commercial use on TV, FM, AM, HF, LF and VHF systems; specialize in telecommunications towers.

# TRANSCOM ELECTRONICS MFG. LTD.

239 Belanger Street St. Jerome, Quebec, Canada J7Y 1K7

Tel: (514) 438-1060 Telex: 05-839531

Products: negative impedance type voice frequency repeaters (telephone industry application — toll and extended area service, long subscriber loop service, special services); loop signalling extenders (for extension of telephone central office subscriber loop limits to 1,800 ohms); booster power modules (for extension of telephone central office subscriber loop limits to 3,000 ohms); bridge filters; impedance compensators; fuse and alarm panels.

# TRIBAR INDUSTRIES LTD. 3650 Weston Road

Weston, Ontario, Canada M9L 1W2

Tel: (416) 749-6000 Telex: 065-27167

Products: radar (police) Model DRS3, T3 and MDR-1; radar (sports) Model T3S, Model MDR-1 track radar may be used in stationary mode or with capability of monitoring moving traffic.

# TMC (CANADA) LTD.

R.R. 5 Ottawa, Ontario, Canada K1G 3N3

Tel: (613) 521-2050 Telex: 053-4146

Products: RF amplifiers and preamplifiers; antenna couplers; coils; communications equipment and systems; connectors; converters; filters; receivers — LF/VLF, marine, SSB, VHF; coaxial relays and switches; emergency transceivers; RF and IF transformers; transmitters.

# TECHNICAL ENTERPRISES LTD.

2266 Drew Road, Unit 9 Mississauga, Ontario, Canada L5S 1B1

Tel: (416) 677-2101

**Products:** anti-static antenna fittings for aircraft.

# **TECTROL INC.**

4 Ashwarren Road Downsview, Ontario, Canada M3J 1Z5

Tel: (416) 630-8108

**Products:** switching power supplies, inverters, DC/DC converters, standby power supplies.

# TELE-DEVICES LTD.

5850 Vanden Abeele St. Laurent, Quebec, Canada H4S 1R9

Tel: (514) 331-4422 Telex: 05-827651

**Products:** telephone sets and special-purpose telephones, speaker-phones.

# THERMO ELECTRIC (CANADA) LTD.

12 Rutherford Road South Brampton, Ontario, Canada L6W 3J2

Tel: (416) 451-0183 Telex: 06-97664 TWX: 610-492-2696

Products: thermocouples and complete assemblies; bridges; packaged and modular circuits; temperature controls, temperature-detection thermocouples and RTD meters; temperature sensors; temperature indicators and digital panel meters and monitors, transducers.

### THOMAS & BETTS LTD.

Box 30 Iberville, Quebec, Canada J2X 2M9

Tel: (514) 658-6611 Telex: 05-831550

**Products:** electronic connectors and harnessing accessories, also identification products.

# TORPEY CONTROLS & ENGINEERING LTD.

70 Milner Avenue Unit 5 Scarborough, Ontario, Canada M1S 3P8 Tel: (416) 298-6220

**Products:** computer-based systems for television broadcasting.

### UNI-TEL LTD.

1792 Birchmount Road Scarborough, Ontario, Canada M1P 2H7

Tel: (416) 291-3131 Telex: 06-963523

Products: equipment and systems for supervisory control, remote control, fault-alarm reporting, telemetering and data transmission, for such customers as telephone operating companies, pipelines, power generating and distributing utilities, municipal utili-

ties, railroads, radio and television broadcasters, and industrial and manufacturing companies.

# UNICAN ELECTROCHEMICAL PRODUCTS LTD.

5795 De Gaspe Avenue Montreal, Quebec, Canada H2S 2X3

Tel: (514) 273-0451 Telex: 05-24651

**Products:** zinc air hearing aid battery; electrochemical timing elements.

# UNITRON INDUSTRIES LTD.

685 Wabanaki Drive P.O. Box 9017 Kitchener, Ontario, Canada N2G 4J3

Tel: (519) 893-6800 Telex: 069-5209

Products: a complete line of hearing aids including: rechargeable, high power, directional, HLC (high level compression), high frequency emphasis, peak clipping, diode clipping, and linear models.

# UNIVERSAL TECHNOLOGY INC.

1685 Ingleton Avenue Burnaby, British Columbia, Canada V5C 4L8

Tel: (604) 299-8414

**Products:** radio remote controls for forestry, barges, trains, mining operations etc.

### **UP-RIGHT SCAFFOLDS LTD.**

108 Industrial Drive Whitby, Ontario, Canada L1N 5Z8

Tel: (416) 668-7701 Telex: 06-981395

**Products:** portable aluminum microwave path-loss test towers, with optional antenna dollies; installer's scaffolds.

VALCOM LTD. P.O. Box 603 Guelph, Ontario, Canada N1H 6L3

Tel: (519) 824- 3220 Telex: 069-56593

Products; fibreglass whip antennas, free standing 35 ft. to 80 ft. (10.7 m to 24.4 m) 2 to 30 MHz both military and commercial versions; auto tune couplers, 1kW to 10 kW; power supplies, cable assemblies, amplifiers, antennas, splitter panels, electronic assembly work.

# VARIAN ASSOCIATES OF CANADA LTD.

45 River Drive Georgetown, Ontario, Canada L7G 2J4

Tel: (416) 457-4130 Telex: 069-7502 TWX: 610-492-2641

Products: microwave tubes — millimeter wave tubes up to 220 GHz, klystrons, travelling wave tubes, magnetrons; power supplies — travelling wave tubes and klystrons; magnetometers — cesium and proton, portable, airborne, and underwater; Klystron power amplifiers.

### **VESTSHELL INC.**

10351 Pelletier Street Montreal, Quebec, Canada H1H 3R2

Tel: (514) 322-2371

**Products:** precision investment casting of ferrous alloys; silicon iron; monel; cobalt alloys; soft magnets.

### **VISCOUNT INDUSTRIES LTD.**

105 East 69 Avenue Vancouver, British Columbia, Canada V5X 2W9

Tel: (604) 327-9446 Telex: 04-508605

**Products:** television systems, studio equipment and special-effects generators.

### **VOLKER-CRAIG LTD**

266 Marsland Drive Waterloo, Ontario, Canada N2J 3Z1

Tel: (519) 884-9300 Telex: 069-5127

Products: TTY compatible video display computer terminals including 414H Hazeltine emulation editing terminal; VT52-VT emulation terminal and 415 APL-APL overstrike terminal. board, special character fonts and serial or parallel peripheral interface for maximum flexibility to meet each user's particular requirements.

### WR COMMUNICATIONS LTD.

1655 West 3rd Avenue Vancouver, British Columbia, Canada V6J 1K1

Tel: (604) 732-6358 Telex: 04-54542

**Products:** VHF and UHF mobiles, base stations, remote controls, repeaters and paging systems.

# WARD AUTOMOTIVE ELECTRONICS OF CANADA LTD.

188 Bentworth Avenue Toronto, Ontario, Canada M6A 1P8

Tel: (416) 789-1167 TWX: 610-491-0462

Products: vehicular antennas.

# WARD-BECK SYSTEMS LTD.

841 Progress Avenue, Scarborough, Ontario, Canada, M1H 2X4. Tel: (416) 438-6550 Telex: 065-25399

**Products:** Audio and TV broadcast consoles and associated equipment.

# **WEBER ELECTRONICS**

Compar Division 105 Brisbane Road Downsview, Ontario, Canada M3J 2K6

Tel: (416) 663-5670 TWX: 610-492-1337

**Products:** printed-circuit cardedged connectors.

# WESTERN RESEARCH & DEVELOPMENT LTD.

Instrumentation Sales 1313 — 44th Avenue Northeast Calgary, Alberta, Canada T2F 6L5

Tel: (403) 276-8806 Telex: 038-24684

Products; pollution monitoring equipment, source and ambient; continuous stack emission monitoring systems — S02 NOx, O2 and particulates; H2S analyzers; ambient monitoring systems and data handling packages; sulphur plant process measurement and control systems; ultraviolet photometric analyzers.

# WESTERN SCALE CO. LTD.

1670 Kingsway Avenue Port Coquitlam, British Columbia, Canada V3C 3Y9

Tel: (604) 941-3474

**Products:** digital weight indicators; microprocessor control systems.

# WESTINGHOUSE CANADA LTD.

Electronic Systems Division P.O. Box 5009 Burlington, Ontario, Canada L7R 4B3

Tel: (416) 528-8811 Telex: 061-8409

Cable: WESTCAN HAMILTON

Products: computer terminals and display systems for video presentation of digital information; communications controllers for polling, message switching and control in digital networks; line tracing systems for automatic contour control of gas and plasma cutting and other machine tool applica-

tions; electrohydraulic, pneumatic and electronic industrial instrumentation devices and integrated systems using such components for the measuring. recording and controlling of industrial and power generating processes; semi-conductor bridge assemblies; nuclear components and nuclear protection and monitoring systems; sonar and other forms of underwater sound detection and weapon control systems: airborne and surface electronic data gathering and weapon control systems; electronic warfare and electronic counter measure equipment; satellite ground station subsystems; electronic manufacturing and engineering subcontract services.

# WILDCAT CONTROL CORP. LTD.

300 Wildcat Road Downsview, Ontario, Canada M3J 2N5

Tel: (416) 661-2600 Telex: 065-24001

**Products:** miniature low pressure switches.

# WILLOWGLEN CO. LTD.

P.O. Box 1057, Station T 1235 — 64 Avenue Southeast Calgary, Alberta, Canada T2H 2H4

Tel: (403) 253-3051 TWX: 610-821-0405

Products: VASCON-200 data acquisition and supervisory control system; VASCON-220 process controller computer based 4 mode process controller.

# THE WIND TURBINE CO. OF CANADA LTD.

21 Howard Avenue Elmira, Ontario, Canada N3B 2C9

Tel: (519) 669-5421 Telex: 069-55282 **Products:** wind-driven generators; microwave and high-frequency antennas; broadcasting towers and transmission lines.

### YORKVILLE SOUND LTD.

80 Midwest Avenue Scarborough, Ontario, Canada M1P 4R2

Tel: (416) 751-8481 Telex: 06-969731

**Products:** musical-instrument amplifiers, sound-reinforcement systems, amplifiers, speakers and accessories.

# Consultants, General

### **ADGA GROUP**

Engineers and Systems Analysts

P.O. Box 227, Terminal A Ottawa, Ontario, Canada

K1P 5G3 Tel: (613) 23

Tel: (613) 237-3022 Telex: 053-4568 Cable: ADGA OTT

Services: specialists in all project phases of electronic systems; terrestrial and satellite communications; computer hardware and software; radar and electronic navigational aids for applications such as air traffic control, marine vessel traffic management systems; telephone switching; railway signalling and control; area and point-to-point radio networks and satellites — both communication and scientific.

# BELL CANADA-INTERNATION-AL MANAGEMENT, RESEARCH AND CONSULTING LTD.

1 Nicholas Street, 8th Floor Ottawa, Ontario, Canada K1G 3J4

N IG 334 Tel: (613) 56

Tel: (613) 563-1811 Telex: 053-4849

Services: expertise in all facets of telecommunications on consulting or turnkey basis; forecasting, planning and studies;

management, construction and turnkey operation; engineering, furnishing and installation; operations and maintenance; training; computer communications; staff has worked in more than 40 countries.

# **BLANAROVICH ENGINEERING**

Box 292

Don Mills, Ontario, Canada M3G 2S2

Tel: (416) 439-6679

**Services:** design and engineering of antenna systems — HF, VHF, UHF and satellite.

# BRISTOL AEROSPACE LTD.

P.O. Box 874

Winnipeg, Manitoba, Canada R3C 2S4

Tel: (204) 775-8331 Telex: 07-57774 TWX: 610-671-3598 Cable: BRISAIRCO

Services: data acquisition studies in the fields of pollution, meteorology, hydrology, oceanography and machine diagnostics; various methods of data acquisition are studied and recommendations are made, and design, fabrication, and installation of complete systems can be provided; complete engineering services for sounding rocket payloads from feasibility studies to instrument development and test flight.

# CABLE CONSULTING SERVICES LTD.

1608 Truscott Drive Mississauga, Ontario, Canada L5J 1Z4

Tel: (416) 822-0625

Services: management and engineering consulting services for all aspects of cable television distribution systems, including feasibility studies, cost projections and engineering design; design of microwave systems and interference studies for satellite earth stations; extensive experience in coaxial VHF systems and multipair HF

systems, having been associated with the development of CATV in Canada and the United States for 26 years and with Rediffusion in Britain for six years; previous experience in telephone engineering: 14 years with British Post Office engineering department.

# CANADIAN PACIFIC CON-SULTING SERVICES LTD.

Windsor Station, Room 171 Montreal, Quebec, Canada H3C 3E4

Tel: (514) 395-5151 Telex: 055-60147

Cable: CANPAC MONTREAL

Services: consulting specialists in planning, system engineering, construction, operation and administration of general telecommunication services; broad spectrum of services also available in respect to computer communication systems and railway signalling and communication systems.

# CANSULT LTD.

275 Duncan Mill Road Toronto, Ontario, Canada M3B 3H9

Tel: (416) 445-9431 Telex: 06-966783

Cable: CANSULT TORONTO

Services: consulting engineering services, specializing in such fields as power transmission and communication, power stations, electrical installations, industrial utilities, airports and air transport, townsite master planning.

# CANTEL ENGINEERING ASSOCIATES LTD.

402 West Pender Street Vancouver, British Columbia, Canada

V6B 1T6

Tel: (604) 684-1144 Telex: 04-507775 Cable: CANTELCOM

1300 8th Street South West Calgary, Alberta, Canada

T2R 1B2

Tel: (403) 266-7262 Telex: 03-826791

Services: feasibility studies, field surveys, design and specification, tender evaluation, project management, briefs to government authorities, inspection and training, with the following specialization: broadcasting (AM, FM, TV and CATV), microwave, mobile, satellite, data communications and telephony.

# COLE, SHERMAN & ASSOCIATES LTD.

2025 Sheppard Avenue East Willowdale, Ontario, Canada M2J 1W3

Tel: (416) 491-4503 Telex: 06-966647 Cable: CSAINC, TOR

Services: postal engineering.

# CUSHING & NEVELL TECHNI-CAL & COMMERCIAL PUBLICATIONS LTD.

120 Eglinton Avenue East Toronto, Ontario, Canada M4P 1E2

Tel: (416) 487-2866

Services: electronic technical advertising and technical writing, with language capability.

### DGB CONSULTANTS INC.

P.O. Box 40 Desjardins Postal Station Montreal, Quebec, Canada H5B 1B2

Tel: (514) 282-9531 Telex: 055-60042

Services: professional services in the telecommunication and computer fields; feasibility studies, systems concept and design, preparation of plans and specifications, analysis of bids from suppliers; project management, training of personnel and commissioning; application experience acquired over the last 20 years is: microwave systems, switching, cable distribution, radio and television broadcasting stations,

audio-visual systems, mobile communications systems; computer information storage and retrieval systems.

### **DELGOR CONSULTANTS**

Billings Bridge Plaza P.O. Box 8004 Ottawa, Ontario, Canada K1G 3H6

Tel: (613) 733-9220 Telex: 053-4152 Cable: DELGOR

Services: specialists in wastewater collection, treatment, and disposal, using computerized equipment for analysis; solid-waste management; energy recovery; computerized supervisory control.

# DIGITAL METHODS LTD.

1736 Courtwood Crescent Ottawa, Ontario, Canada K2C 2B5

Tel: (613) 225-1171 Telex: 053-3661

Services: software and systems engineering in the field of computer systems and applications; methods analysis and management engineering; particular applications: air traffic control simulation, telex switching, vehicle dispatch.

### DIGITECH LTD.

500, 441 - 5th Avenue South West Calgary, Alberta, Canada T2P 2V1 Tel: (403) 265-3484

Services: digital processing of land and marine geophysical survey data for the petroleum exploration industry; seismic processing and software systems; geophysical modeling and software systems; gravity and magnetic processing; custom geological file development; custom geophysical file development; digitizing services and software systems; mapping services and software systems.

### THE ECE GROUP

205 Lesmill Road Don Mills, Ontario, Canada Tel: (416) 449-1030

Services: feasibility studies; design and specification of electronic communications and control systems; installation management; reports; negotiations with utilities; microprocessor applications — both hardware and software; tender evaluations; inspection; environmental and energy management.

# HOYLES NIBLOCK INTERNA-TIONAL LTD.

4664 Lougheed Highway Burnaby, British Columbia, Canada V5C 5R7

Tel: (604) 294-3401 Telex: 043-54623

Cable: TELECOM VANCOUVER

Services: systems engineers with expertise in telecommunications transmission systems (microwave, troposcatter, radar, satellite, UHF, VHF, HF, MF, powerline carrier, VF cable); telephony systems (CO and PABX equipment, private networks, outside plant, station equipment, traffic and tariff studies); data/control systems (datacom facilities, computer hardware, applications software, SCADA systems); broadcasting stations (AM and FM radio, television, cable TV, closed-circuit TV, TVRO earth stations; range of services offered includes project management; system evaluations, feasibility studies, short and longterm system planning; preparation of applications for licensing authorities; conceptual and detailed system design; preparation of specifications for tender purposes; evaluation of tenders and assistance in contract negotiation; supervision of construction, including

factory and field testing; implementation and operations assistance.

# WILLIAM G. HUTCHISON & CO. LTD.

P.O. Box 5819, Station A Toronto, Ontario, Canada M5W 1P2

Tel: (416) 449-2761 Telex: 06-966710

Services: computer consulting

-high technology.

### INTEL CONSULTANTS LTD.

77 Metcalfe Street, Suite 709 Ottawa, Ontario, Canada

K1P 5L6

Tel: (613) 236-2311 Telex: 053-4533 Cable: INTELCON OTT

Services: telecommunications systems engineering and economics consultancy; feasibility studies including economics aspects such as rate of return, cash flow analyses, depreciation, etc.; planning and systems design in all branches of telecommunications transmission and switching; project management and management consultancy.

# INTERNATIONAL AERADIO (NORTH AMERICAN) LTD.

70 Don Park Road, Únit 15 Markham, Ontario, Canada L3R 1G4

Tel: (416) 495-1144 Telex: 06-986818

Services: handling turnkey contracts in the two-way manned mobile radio field; provision of a computer-aided dispatch system for transit operations.

# KENDALL ASSOCIATES LTD.

77 Metcalfe Street, Suite 406 Ottawa, Ontario, Canada

K1P 5L6

Tel: (613) 236-0875 Telex: 053-3560 Cable: KENMARK

Services: marketing consul-

tants specializing in surveys and studies for clients interested in North American defence or technical markets; provision of temporary technical personnel in electronics, aerospace and computer technology.

# JAMES F. MACLAREN LTD. 1220 Sheppard Avenue East,

Suite 100

Willowdale, Ontario, Canada

Tel: (416) 499-0880 Telex: 06-986794 Cable: JAYMAC

Services: Environment assessment, control and monitoring; instrumentation and control design.

# MILLER COMMUNICATIONS SYSTEMS LTD.

300 Legget Drive Kanata North Business Park Kanata, Ontario, Canada K2K 1Y5

Tel: (613) 592-3020 Telex: 053-4164

Services: operates principally in the area of systems engineering, specializing in satellite communications systems planning; the company has the capability to design, construct, and install communications facilities of a highly customized nature in a short time frame.

# MONTREAL ENGINEERING CO. LTD.

P.O. Box 6088, Station A 2045 Stanley Street Montreal, Quebec, Canada H3C 3Z8

Tel: (514) 286-3636 Telex: 055-60735 Cable: MONENCO

Services: consulting engineering services in communications and supervisory control systems for power generating plants, electric power transmission networks (including high voltage DC), pipelines, pumping stations and industrial plants.

### MOSAID INC.

212 Morrison Drive, Suite 212 P.O. Box 11123, Station H Ottawa, Ontario, Canada K2H 7TH

Tel: (613) 820-7316 Telex: 053-4986

Services: specializes in the design and design analysis of MOS memory chips; is equipped for state-of-the-art circuit and layout design of devices such as VLSI dynamic RAMs; on-site work is undertaken to see designs into production and the company works with a U.S. processing house to prove-in designs before transfer if required; undertakes the analysis of commercially available memory devices and has available reports describing the circuit design and operation of virtually every MOS dynamic RAM and some static devices: design seminars are given using this data base; operates world-wide with major users and suppliers of memory devices in three continents: also supplies a unique MOS circuit analysis computer-aided design program that can be used for the most demanding MOS design work.

# NATIONAL ELECTROLAB LTD.

1536 Columbia Street North Vancouver, British Columbia, Canada V7J 1A4

Tel: (604) 985-0511 Telex: 043-52683

6 Lansing Square, Suite 118A Willowdale, Ontario, Canada M2J IT5

Tel: (416) 496-1130

P.O. Box 9123, Station E Edmonton, Alberta, Canada T5P 4K2

Tel: (403) 454-8130

Services: consulting electronics laboratory; testing of communications equipment for

type approval by the Canadian Department of Communications; testing and evaluation for purchasing and insurance purposes; custom instrumentation design and development.

# PEAT, MARWICK AND PARTNERS

P.O. Box 31 Commerce Court West Toronto, Ontario, Canada M5L 1B2

Tel: (416) 863-3500

Services: business data processing, management information systems, urban traffic control, marine traffic control, air traffic control, medical electronics, special-purpose electronic system design, process control; feasibility studies, systems evaluations, equipment evaluations and tests, system design, development and specifications, computer programming, system implementation.

# SHARON PROFESSIONAL SERVICES

A Division of Sharon Electronics Ltd. 215 Cooper Street Ottawa, Ontario, Canada K2P 0G2

Tel: (613) 238-7395

Services: technical writing, library services; professional services—electrical and mechanical; contract engineering.

# I.P. SHARP ASSOCIATES LTD. 145 King Street West Toronto, Ontario, Canada M5H 1J8

Tel: (416) 364-5361

Services: major supplier of APL time-sharing and consulting services; more than 25 public data bases are offered, and a wide range of applications software; access is provided in more than 250 cities through an international network and worldwide access through the Telex network.

# SHARP SPECIAL SYSTEMS DIVISION

156 Front Street West Toronto, Ontario, Canada M5J 1G6

Tel: (416) 364-5361

Services: expertise in mini and micro computer systems; systems converting; contract programming; complete turnkey systems; feasibility studies and systems specification.

# WATTS, GRIFFIS & McOUAT LTD.

159 Bay Street, Suite 911 Toronto, Ontario, Canada M5J 1J7

Tel: (416) 364-6244 Telex: 06-217620 Cable: WATGRIF

Offices abroad: P.O. Box 59

Anchorage, Alaska, U.S.A.

Tel: (907) 276-5004 Telex: 030-525263

Box 5219 Jeddah Saudi Arabia Tel: 53045

Telex: 495-401787

Services: international data gathering, interpretation, and report compilation — ground geophysics and geochemistry; electromagnetic, gravimetric, and radiometric surveys; induced polarization studies; also interpretation of airborne geophysical data, water-quality analyses, and environmental data assessment.

# Consultants, Geophysical

BARRINGER RESEARCH LTD. 304 Carlingview Drive Metropolitan Toronto Rexdale, Ontario, Canada M9W 5G2

Tel: (416) 675-3870 Telex: 06-989183

Cable: BARSEARCH TORONTO

Services: program participation and management; consulting and contracting; laboratory analyses; ground and airborne pollution monitoring.

# DIGHEM LTD.

Toronto Dominion Centre, Suite 4900 Toronto, Ontario, Canada M5K 1E8 Tel: (416) 362-3878

Tel: (416) 362-3878 Telex: 06-219566

**Services:** helicopter-borne geophysical surveys; interpretation of geophysical data.

### **GEOPHYSICAL SURVEYS INC.**

2272 Leon Hamel Quebec City, Quebec, Canada G1N 4L2

Tel: (418) 687-4055 Telex: 051-31523 Cable: GEOAIR

Services: ground and airborne

geophysical surveys.

### **GEOTERREX LTD.**

2060 Walkley Road Ottawa, Ontario, Canada K1G 3P5

Tel: (613) 731-9571 Telex: 053-3502 Cable: GEOTERRA

Services: airborne geophysical exploration: high-sensitivity aeromagnetics, high-sensitivity radiometrics, Barringer input airborne electromagnetic; ground geophysical exploration follow-up of airborne electromagnetic surveys; magnetic, electromagnetic, induced polarization, resistivity, gravity and seismic surveys.

# INTERA ENVIRONMENTAL CONSULTANTS LTD.

406 - 7015 Macleod Trail

Calgary, Alberta, Canada Tel: (403) 253-8895 Telex: 03-824537

Services: groundwater-contamination and air-quality engineering and consulting services.

# KENTING EARTH SCIENCES LTD.

380 Hunt Club Road Ottawa, Ontario, Canada K1G 3N3

Tel: (613) 521-1630 Telex: 053-4173 Cable: KENSCI

Services: aerial photography; remote sensing; airborne geophysics; airborne profile recording; interpretation of imagery; interpretation of geophysical data; surveying and mapping; geodetic surveys.

# NORTHWAY-GESTALT CORP.

1450 O'Connor Drive Toronto, Ontario, Canada M4B 2V2

Tel: (416) 755-1141 Telex: 06-963518

Cable: NORTHWAY TORONTO

Services: aerial mapping, also orthophotomosaics, digitizing, digital elevation models.

# ONTARIO RESEARCH FOUNDATION

Sheridan Park Mississauga, Ontario, Canada L5K 1B3

Tel: (416) 822-4111 Telex: 06-982311

Services: laboratories in Sheridan Park research community handle contract research and development, design, and construction of special devices and instrumentation; data acquisition and analysis; monitoring of solar-heating systems; thin-film vacuum coating capability; custom microprocessor applications; measuring and evaluation of fiberoptic cables and components; struc-

tural dynamic analyses using computerized equipment; spectroanalyzer, electromagnetic and hydraulic vibration excitation studies.

# PHOENIX GEOPHYSICS LTD. 200 Yorkland Boulevard

Willowdale, Ontario, Canada M2J 1R6

Tel: (416) 493-6350

Telex:

Cable: PHEXCO TORONTO

Services: induced polarization surveys for mining and oil exploration; electromagnetic systems, VLF-EM and AFMAG, AMT, MT; resistivity surveys for groundwater exploration, geothermal exploration, foundation engineering and nuclear waste disposal; data processing and consulting.

### PHOTOSUR INC.

1130 Sherbrooke Street West Montreal, Quebec, Canada H3A 2R5

Tel: (514) 288-1370 Telex: 055-61257

Services: aerial photography; remote sensing; airborne geophysics; interpretation of imagery; interpretation of geophysical data; surveying and mapping.

### QUESTOR SURVEYS LTD.

6380 Viscount Road Mississauga, Ontario, Canada L4V 1H3

Tel: (416) 676-9880 Telex: 06-983611

Services: geophysical exploration — aeromagnetic: combined aeromagnetic/airborne electromagnetic; airborne radiometric.

# TEKNICA RESOURCE DEVELOPMENT LTD.

633-6th Avenue Southwest, Suite 600 Calgary, Alberta, Canada T2P 2YS

Tel: (403) 269-4386 Telex: 038-26725 Services: software for generation of synthetic borehole sonic logs; termed seislogs, from conventional broadband seismic data; specialized interpretation services for determination of subsurface lithologies and porosities using data from derived logs.

# TERRA SURVEYS LTD.

2060 Walkley Road Ottawa, Ontario, Canada K1G 3P5

Tel: (613) 731-9571 Telex: 053-3502 Cable: GEOTERRA

Services: photogrammetry, geodetic surveys, engineering surveys and resource studies: stereo plotting, airborne and ground electronic distance measuring, route location; airborne geophysical exploration: high-sensitivity aeromagnetics, high-sensitivity radiometrics, Barringer input airborne electromagnetic; ground geophysical exploration: follow-up of airborne electromagnetic surveys; magnetic, electromagnetic, induced polarization, resistivity, gravity, and seismic surveys.

# WESTERN GEOPHYSICAL CO. OF CANADA LTD.

530-71st Avenue Southeast Calgary, Alberta, Canada T2H 1X6

Tel: (403) 253-7101 Telex: 038-21602

Services: high resolution land seismic exploration; land seismic exploration, dynamite or Vibroseis®; geothermal exploration; marine seismic exploration, aquapulse, dynamite (maxipulse) or airgun; aerial photography; airborne geophysical surveys including aeromagnetic, side looking airborne radar (SLAR), gamma ray spectrometry, very low frequency electromagnetic; utility mapping. Full data processing and interpretation services.

# Volker-Craig More than just a hardware company

At Volker-Craig, we're more than just another hardware company. We're one of the world's fastest-growing manufacturers of alphanumeric terminals and terminal systems. We're an international company of people and ideas dedicated to the development of innovative applications of new technology for more effective and cost-efficient data processing systems.

The result of this dedication is our advanced 400 Series of Video Display Terminals. Designed to satisfy a wide array of data processing requirements, the 400 Series consists of four precisely engineered

models:

All Volker-Craig 400 Series Terminals feature detachable keyboards and non-glare screens. What's more, each model can be custom-tailored to your individual needs.

And behind every Volker-Craig component stands a service program of fast, affordable product maintenance to ensure the maximum of efficiency with a minimum of downtime.

For more information on how Volker-Craig's 400 Series Terminals can help to solve your data processing problems contact your local distributor.

ASCII teletype compatible terminal. The VC414H, a smart, Hazeltine 1510 compatible terminal that provides buffered editing, formating, character highlighting and status line as standard features.

The VC404, a reliable, cost-efficient,

The VC415APL, offering full overstrike, split screen, and buffered editing capabilities.

The VC4152, a DEC VT52 compatible terminal with many of the features found only on the VT100. Character highlighting, function keys and status line are standard.





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# Canada in the World of Electronics Cross Index



# Equipment

# **AEROSPACE EQUIPMENT**

RESEARCH Barringer Research

Ltd. Bristol Aerospace Ltd. CAE Electronics Ltd. Leigh Engineering Systems Presentey Engineering Products Ltd. Spar Aerospace Products Ltd. Sperry Gyroscope

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TMC (Canada) Ltd.

Canada Ltd.

Varian Associates of

Yorkville Sound Ltd.

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**Hermes Electronics** Ltd. Nautical Electronic Laboratories Ltd. Sinclair Radio Laboratories Ltd. Spar Aerospace Products Ltd. Spilsbury & Tindall Ltd. Valcom Ltd.

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Canadian Marconi Co. Computing Devices

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Sperry Gyroscope Sperry Univac Defence Systems

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Rockwell International

of Canada Ltd.

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HF

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International Systcoms Ltd. Motorola Canada Ltd. Sperry Marine Systems Spilsbury & Tindall Ltd. TMC (Canada) Ltd. WR Communications Ltd.

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# SSB

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Ltd.
Hermes Electronics
Ltd.
Nautical Electronic
Laboratories Ltd.
Rockwell International
of Canada Ltd.
Spilsbury & Tindall
Ltd.
TMC (Canada) Ltd.

SATELLITE
COMMUNICATIONS
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Canadian Astronautics
Ltd.
Canadian Marconi Co.
Com Dev Ltd.
Elcina
Communications Ltd.
Miller Communications
Systems Ltd.

Mitec Electronics Ltd. Raytheon Canada Ltd. SED Systems Ltd. Spar Aerospace Products Ltd.

**GENERAL AND** CUSTOM **Abroyd Construction** Ltd. Bayly Engineering Ltd. Calgary Controls Ltd. **Develoon Electronics** Ltd. **Edwards** Farrell Development Corp. Ltd. International Aeradio (North American) Ltd. Omicron Data Systems Ltd. Presentey Engineering Products Ltd. SED Systems Ltd.

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Ltd.

TMC (Canada) Ltd.

WR Communications

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Automatec Inc.
Edwards
Electro Vox Industries
Inc.
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Sperry Gyroscope
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GENERAL
INDUSTRIAL
CONTROL
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Ascolectric Ltd.
Automatec Inc.
Bailey Meter Co. Ltd.
CAE Electronics Ltd.
Canadian General
Electric Co. Ltdc.
Canadian Research
Institute
Central Electro
Technique
Challenger Electronics

Conspec Controls Ltd. **Durand Controls** Durmitor Inc. Epic Data Sales Ltd. Fischer & Porter (Canada) Ltd. The Foxboro Co. Ltd. Glenayre Electronics Honeywell Ltd. **Mechtronics Research** Corp. Milltronics Ltd. Ruscom Logics Ltd. Sandtron Automation Ltd. Westinghouse Canada Ltd.

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Challenger Electronics
Conspec Controls Ltd.
Durmitor Inc.
The Foxboro Co. Ltd.
RMS Industrial
Controls Inc.
Uni-Tel Ltd.
Unversal Technology
Inc.

RAILWAY SIGNALLING AND CONTROL Automatec Inc. Bayly Engineering Ltd. Motorola Canada Ltd. Positron Industries Inc.

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Electric Co. Ltd.
Central Electro
Technique Detronics
Ltd.
Leigh Engineering
Systems

# COUNTING AND TIMING DEVICES

Amber Electro Design Ltd.
Amerace Ltd.
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Lisle-Metrix Ltd.
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PWH Electronics Ltd.
Pylon Electronic
Development Co. Ltd.
Sandtron Automation Ltd.

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Computing Devices
Co.
Consolidated
Computer Inc.
Cremanco Systems
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Crescent Controls Ltd.
Dynalogic Corp. Ltd.
Epic Data Sales Ltd.
Gandalf Data
Communications Ltd.

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Pylon Electronic
Development Co. Ltd.
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Systems Ltd. (Riscan)
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SIOC Ltd.

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CETA Ltd.
Commercial
Electronics Ltd.
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Ltd.
Goodwood Data
Systems Ltd.
Hallcraft Electronics
Ltd.
Lab-Volt Ltd.

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Diffracto Ltd.
Honeywell Ltd.
Leigh, Industrial
Products Div.

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Ltd.
Coniages Research
Inc.
Crone Geophysics Ltd.
CTF Systems Inc.
EDA Instruments Inc.
Geonics Ltd.
Geoprobe Ltd.
Glenayre Electronics
Ltd.
Huntec ('70) Ltd.

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Leak "X" Detection
Devices Ltd.
Mark Products Ltd.
Phoenix Geophysics
Ltd.
Sander Geophysics
Ltd.
Scintrex Ltd.
W. Sodin Gravity Ltd.
Sonotek Ltd.

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Barrington Research
Ltd.
Crone Geophysics Ltd.
Geonics Ltd.
Huntec ('70) Ltd.
Intera Environmental
Consultants Ltd.
MacPhar Geophysics
Sander Geophysics
Ltd.
Scintrex Ltd.

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Gandalf Data
Communication Ltd.
Hallcraft Electronics
Ltd.
Mitel Semiconductor
Inc.
Multi-Vox Ltd.

**BUSINESS AND OF-**

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Televox Systems Inc.

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Electro Vox Industries
Inc.
Leigh, Industrial
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Motorola Canada Ltd.
Multi-Vox Ltd.
Televox Systems Inc.

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AEL Microtel Ltd.

Amplitrol Electronics Ascolectric Ltd. Audiotronic Enterprises Ltd. Audor Communications Inc. Automatec Inc. Bailey Meter Co. Ltd. Bristol Aerospace Ltd. CAE Electronics Ltd. Canadian Puregas Equipment Ltd. Canadian Thermostats & Control Devices Ltd. Central Electro Technique Century III Electronics Inc. **Check Security** Systems Inc. Chubb Security Systems Conspec Controls Ltd. Controlic Controls Ltd. Crescent Controls Ltd. Detronics Ltd. Dicon Systems Ltd. Dual Lite Products Ltd. **Durand Controls Edwards Electric Power** Equipment Ltd. Electro-Vox Inc. Elinca Communications Ltd. ESE Ltd. Ferranti-Packard Electronics Ltd. Fire Devices Mfg. Ltd. Fischer & Porter (Canada) Ltd. Fisher Controls Co. of Canada Ltd. Garrett Mfg. Ltd. Gebetex Inc. Glenavre Electronics Ltd. Goodwood Data Systems Ltd. GTE Lenkurt Electric (Canada) Ltd. Hawk Eye Security

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# MULTIPLEX EQUIPMENT

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Automatec Inc.
Bayly Engineering Ltd.

Canadian R.G.L. Electronics Ltd. Central Electro Technique Direct Digital Industries Ltd. Elinca Communications Ltd. Farinon Electric of Canada Ltd. Goodwood Data Systems Ltd. Intercontinental Data Control Corp. Ltd. ITT Communications Miller Communications Systems Ltd. Northern Telecom Ltd. Perle Systems Ltd. Raytheon Canada Ltd. Rockwell International of Canada Ltd. Sperry Gyroscope TMC (Canada) Ltd.

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# MARINE Computing Devices Co. C-Tech Ltd. D.G. Instruments Ltd. Ekolite Ltd.

Internav Ltd.

Leigh, Industrial
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Polestar Antennas Ltd.
Shefford Electronics
Corp.
Sparton of Canada Ltd.
Sperry Gyroscope
Sperry Univac Defence
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Westinghouse Canada

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Canadian General
Electric Co. Ltd.
EDA Instruments Inc.
Garrett Mfg. Ltd.
Leigh, Industrial
Products Div.
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Development Co. Ltd.
R-Metrics Ltd.
Reuter-Stokes Canada
Ltd.
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Garrett Mfg. Ltd.

Glenayre Electronics Lab-Volt Ltd. Leigh, Industrial Products Div. Lorain Products (Canada) Ltd. Mechron Engineering Products Ltd. Mega System Design Ltd. Microwave Technology Nife-Powertronic Corp. **Photochemical** Research Associates Inc. Positron Industries Inc. Powertronic Equipment Ltd. Pylon Electronic Development Co. Ltd. Research Industries Ltd. R-Metrics Ltd. Rochester Instrument Systems Ltd. (Riscan) Staticon Ltd. Tectrol Inc. Tele-Radio Systems Ltd. Valcom Ltd.

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Leigh, Avionics Dlv.
Leigh Engineering
Systems

Litton Systems
Canada Ltd.
MacDonald, Dettwiler
& Associates Ltd.
Raytheon Canada Ltd.
Sperry Gyroscope
Sperry Univac Defence
Systems
Tribar Industries Ltd.
Westinghouse Canada

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Co.
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Canada Ltd.
Hermes Electronics
Ltd.
Leigh, Industrial
Products Div.
Sperry Gyroscope
Sperry Univac Defence
Systems

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CAE Electronics Ltd.
Canadian Marconi Co.
Computing Devices
Co.
National Electrolab
Ltd.
Nife-Powertronic Corp.

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Co.
Garrett Mfg. Ltd.
National Electrolab
Ltd.
Sperry Gyroscope

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Frederick Electronics
Canada Ltd.
Intercontinental Data
Control Corp. Ltd.
ITT Communications
Leigh, Industrial
Products Div.
Positron Industries Inc.

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# TELEVISION EQUIPMENT AND SYSTEMS

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Digital Video Systems
Dynatel Systems
Lelgh Engineering
Systems
Scannex International

STUDIO Ampex Canada Inc. Canadian General
Electric Co. Ltd.
Central Dynamics Ltd.
Digital Video Systems
Dynatel Systems
Leitch Video Ltd.
McCurdy Radio
Industries Ltd.
PWH Electronics Ltd.
Ross Video Ltd.
Torpey Controls &
Engineering Ltd.
Viscount Industries
Ltd.

CABLE TELEVISION
Ampex Canada Inc.
Century III Electronics
Inc.
Delta-Benco-Cascade
Ltd.
Digital Video Systems
Dynatel Systems
Lindsay Specialty
Products Ltd.

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**EQUIPMENT** ELECTRICAL/ **ELECTRONICS** Amber Electro Design Ltd. Bach-Simpson Ltd. Baytronix Ltd. Bomem Inc. Bristol Aerospace Ltd. CAE Electronics Ltd. Canadian Research Institute Centaur Mfg. Co. Ltd. CTF Systems Inc. Delta-Benco-Cascade Ltd. **Eddy Current** Technology EKEG Electronics Co. Ltd. Garrett Mfg. Ltd. Guildline Instruments Ltd. Hotpack (Canada) Ltd.

Inax Instruments Ltd.

Lab-Volt Ltd. Leitch Video Ltd. Litton Systems Canada Ltd. Mechtronics Research Corp. Microtronix Systems Ltd. National Electrolab Ltd. Navtel Ltd. Noram Quality Control & Research Equipment Ltd. Photochemical Research Associates Ltd. Richard Brancker Research Ltd. Semco Instruments Co. Ltd. W. Sodin (Gravity) Ltd. Southwell Controls Ltd. Sperry Gyroscope

Western Scale Co. Ltd.

PHYSICAL
Bomen Inc.
Diffracto Ltd.
W. Sodin (Gravity) Ltd.

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Ltd.
Delhi Metal Products
Ltd.
Dynamic Industries
Inc.
Leblanc & Royle
Communications
Towers Ltd.
Maxtower Co. Ltd.
Tower Communications Co. (Canada) Ltd.
Up-Right Scaffolds Ltd.
The Wind Turbine Co.
of Canada Ltd.

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Equipment Ltd.
Fischer & Porter
(Canada) Ltd.
Fisher Controls Co. of
Canada Ltd.
George Kelk Ltd.
Sparton of Canada Ltd.
Thermo Electric
(Canada) Ltd.

# **TRANSMITTERS**

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Bristol Aerospace Ltd.
Canadian Astronautics
Ltd.
Canadian General
Electric Co. Ltd.
Canadian Marconi Co.
Delta-Benco-Cascade
Ltd.
Garrett Mfg. Ltd.

Hermes Electronics
Ltd.
International Technical
Products (Canada) Ltd.
Lisle-Metrix Ltd.
Motorola Canada Ltd.
Nautical Electronic
Laboratories Ltd.
Rockwell International
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Spilsbury & Tindall
Ltd.

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of Canada Ltd.

Mallory Battery Co. of Canada Ltd. Prestolite Battery Saft Batteries Ltd.

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Shaw Flexible Tubes Ltd. Sperry Gyroscope Thomas & Betts Ltd.

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Automatic Winding
Corp. Ltd.
Bayly Engineering Ltd.
CETA Learning
Systems
Electronic Craftsmen
Filtran Ltd.
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Ltd.
S.G. Smallwood Ltd.
TMC (Canada) Ltd.

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CTS of Canada Ltd.
Crystech Co. Ltd.
Croven Ltd.
Leigh, Frequency
Controls Div.
Philips Electronics Ltd.

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# ELECTROMECHANI-CAL PARTS AND ASSEMBLIES

Allen-Bradley Canada Ltd.

Beckman Instruments Inc. Johnson Matthey Ltd. Leigh, Industrial Products Div.

# ELECTRONIC AND TV TUBES

RCA Ltd.

# **ELECTRONIC**HARDWARE

(Knobs, Panels, Etc.)
Amphenol Canada Div.
B&K Plastics
Industries Ltd.
Bel Products
Cords (Canada) Ltd.
EDAC Inc.
Graphico Precision
Works Ltd.

# **FILTERS**

CTS of Canada Ltd.
Com Dev Ltd.
Croven Ltd.
Crystech Co. Ltd.
Erie Technological Ltd.
Ferritronics Ltd.
Filtran Ltd.
Leigh, Frequency
Control Div.
Sinclair Radio
Laboratories Ltd.
S.G. Smallwood Ltd.
TMC (Canada) Ltd.

### **HEAT EXCHANGERS**

Magna International Inc.

### **INSULATORS**

Decca Austin Insulators
Dominion Tape of Canada Ltd.
Synthane-Taylor (Canada) Ltd.

# INVESTMENT CASTINGS

Cercast Inc. Shellcast Foundries Inc. Vestshell Inc.

### **LAMINATIONS**

El-Met Parts Ltd. Magnetic Metals Ltd.

# LEAD FRAMES

Batten Graphics Ltd.

# **LOUDSPEAKERS**

Yorkville Sound Ltd. Midland Sound Systems Co. Ltd. PSB Speakers Inc.

# **MAGNETIC TAPES**

Pan Canada

# METAL PARTS, CABINETS, ETC.

**Armor Enclosures** Cercast Inc. Electrovert Ltd. El-Met Parts Ltd. **Engelhard Industries** of Canada Ltd. Fisher Gauge Ltd. Graphico Precision Works Ltd. Hammond Manufacturing Co. Ltd. Leigh, Industrial Products Div. Magna International Inc. Philips Electronics Ltd. Rayshield Ltd. Shellcast Foundries Inc.

# **METER COMPONENTS**

Geleco Electronics Ltd.

### **MICROCIRCUITS**

Epitek Electronics Ltd. Garrett Mfg. Ltd. Linear Technology Inc. MA Electronics Canada Ltd. Mitel Semiconductor Inc.

### **MICROPHONES**

RD Systems of Canada Ltd.

# MICROWAVE COMPONENTS

Com Dev Ltd.
MA Electronics
Canada Ltd.
Neosid (Canada) Ltd.
Varian Associates of
Canada Ltd.

# MOTORS, SUB-FRACTIONAL HORSEPOWER

Novatronics of Canada Ltd.

# PACKAGED ELEC-TRONICS CIRCUITS

Anro Electronic Industries Ltd. Croven Ltd. CTS of Canada Ltd. Dale Electronics Canada Ltd. Epitek Electronics Ltd. Erie Technological Products Ltd. Ferritronics Ltd. Garrett Mfg. Ltd. Leecraft Industries Ltd. Leigh, Industrial Products Div. Mitel Semiconductor Inc. Thermo Electric (Canada) Ltd.

# PHOTOCONDUCTIVE AND PHOTOELECTRIC DEVICES

CTS of Canada Ltd. National Semiconductors Ltd.

### **PLATING**

Avionics Ltd.
B&K Plastics
Industries Ltd.
Graphico Precision
Works Ltd.
Hamilton Engraving
Co. Ltd.
Johnson Matthey Ltd.

Leigh, Industrial Products Div. Space Circuits Ltd.

#### **POTENTIOMETERS**

Beckman Instruments
Inc.
CTS of Canada Ltd.
Dale Electronics
Canada Ltd.
Precision Electronics
Components (1971)
Ltd.
Renfrew Electric Co.
Ltd.

#### POWDERED IRON AND FERRITE COMPONENTS

Com Dev Ltd. Neosid (Canada) Ltd.

#### PRINTED CIRCUIT BOARDS

Konar Corp.

#### PRINTED CIRCUITS

Avionics Ltd. Canadian Marconi Co. Challenger Electronics Circo-Craft Co. Inc. Circuit Graphics Ltd. Digital Graphics Ltd. **Esmond Equipment** Mfg. Co. Ltd. Fineline Circuits Ltd. Graphico Precision Works Ltd. Hamilton Engraving Co. Ltd. Hylogic Inc. Lazer-Tech Ltd. Neeco Circuit Systems (RDC) Ltd. Ottawa Printed Circuits Ltd. Space Circuits Ltd. Weber Electronics

#### RECTIFIERS

Brown Boveri Çanada Ltd. CTS of Canada Ltd. Erie Technological Products Ltd.

#### **RELAYS**

Allen-Bradley Canada Ltd.
Anro Electronic Industries Ltd.
Brown Boveri Canada Ltd.
Crouse-Hinds Canada Ltd.
National Semiconductors Ltd.
Renfrew Electric Co. Ltd.
Stevens Controls Ltd.
TMC (Canada) Ltd.

#### RESISTORS COMPOSITION

Precision Electronics Components (1971) Ltd. Renfrew Electric Co. Ltd.

#### GLAZED

Dale Electronics Canada Ltd. Renfrew Electric Co. Ltd.

#### NETWORK AND WAFERS

Bayly Engineering Ltd. Renfrew Electric Co. Ltd.

#### **POWER**

Renfrew Electric Co. Ltd.

#### VARIABLE

Amphenol Canada Div. CTS of Canada Ltd. Dale Electronics Canada Ltd. Precision Electronics Components (1971) Ltd. Renfrew Electric Co. Ltd.

#### WIRE WOUND Electronic Hardware Specialties Ltd.

Renfrew Electric Co. Ltd.

#### **SENSORS**

Adaptive Microelectronics Ltd.
Canadian Thermostats & Control Devices Ltd.
D.G. Instruments Ltd.
R.C. Maybee Ltd.
Thermo Electric
(Canada) Ltd.

#### **SERVICES**

Computer Assembly Systems Ltd. Gebetex Inc. Presentey Engineering Products Ltd.

#### SERVOS AND SYNCHROS

Novatronics of Canada Ltd.

#### **SOLDER AND FLUXES**

Cramco Solder Alloys

#### SOLID-STATE DEVICES

Canadian Thermostats & Control Devices Ltd. Epitek Electronics Ltd. Mitel Semiconductor Inc.

#### **SWITCHES**

Allen-Bradley Canada Ltd. Ascolectric Ltd. Burgess Switch Co. Ltd. CTS of Canada Ltd. Comptec International Ltd. Geleco Electronics Ltd. Leigh, Frequency Controls Div. MA Electronics Canada Ltd. Pylon Electronic Development Co. Ltd. Wildcat Control Corp. Ltd.

#### TELEPHONE COMPONENTS

Amphenol Canada Div. Reliance Telecommunication Products Ltd.

#### TELEVISION COMPONENTS

Automatic Winding Corp. Ltd. Lindsay Specialty Products Ltd.

#### TERMINAL BOARDS

Electrovert Ltd.

# TRANSFORMERS AND INDUCTIVE COM-PONENTS

Anro Electronic Industries Ltd. Audio Transformer Co. Ltd. Automatec Inc. **Automatic Winding** Corp. Ltd. Bach-Simpson Ltd. Bayly Engineering Ltd. Decca Austin Insulators **Edwards** Electronic Craftsmen Filtran Ltd. **Geleco Electronics** Ltd. Hammond Mfg. Co. Ltd. Leigh, Industrial Products Div. Lindsay Specialty Products Ltd. Mallory Components McNeill Electronics Ltd. S.G. Smallwood Ltd. Sola Basic Ltd. TMC (Canada) Ltd.

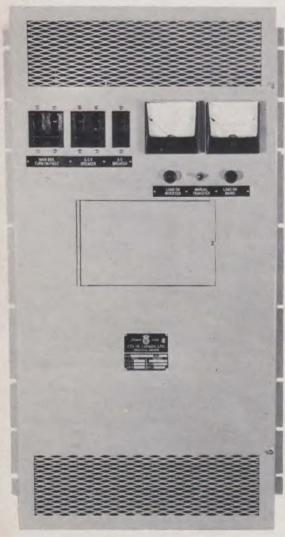
#### TUNERS — VHF AND UFH

Mallory Components Ltd.

#### **WOODEN CABINETS**

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# Canada in the World of Electronics

# Canada's Trade Commissions and Commercial Offices



# Canada's Trade Commissions and Commercial Offices

#### **ALGERIA**

Commercial Division
Canadian Embassy
27 bis, rue d'Anjou
Hydra
(Mailing Address:
C.P. 225, Alger Gare)
Algiers, Algeria
Phone: 60-66-11
Telex: (Area code 408) 52036
(CANAD ALGER)

#### ARAB REPUBLIC OF EGYPT

Commercial Division
Canadian Embassy
6 Sharia Mohamed Fahmi el Sayed
Garden City
(Mailing Address:
Kasr el Doubara Post Office)
Cairo, Arab Republic of Egypt
Cable: CANADIAN
Phone: 23110
Telex: (Area code 91) 2677 (CANCAR

Territory: Libya, Sudan

#### **ARGENTINA**

Commercial Division
Canadian Embassy
Casilla de Correo 3898
Suipacha 1111
Buenos Aires, Argentina
Cable: CANADIAN
Phone: 32-9081 to 88
Telex: (Area code 33) 21383

Canadian Consulate General

#### AUSTRALIA SYDNEY

A.M.P. Centre, 8th Floor
50 Bridge Street
Sydney, N.S.W. 2000, Australia
Cable: CANADIAN
Phone: 231-6522
Telex: (Area code 71) 20600
(CANGOVT AA 20600)
Territory: States of New South Wales
and Queensland, Capital Territory,
Northern Territory, Papua New
Guinea, Solomon Islands, Nauru

#### **MELBOURNE**

Canadian Consulate General Princes Gate East Tower, 17th Floor 151 Flinders Street Melbourne 3000, Australia Phone: 63-8431 Telex: (Area code 71) 30501 (CANGOVT AA30501)

Territory: States of Victoria, South Australia, Western Australia.

Tasmania

#### **AUSTRIA**

Commercial Division
Canadian Embassy
Luegerring 10
1010 Vienna, Austria
Cable: CANADIAN
Phone: 63-36-91, 63-66-26
Telex: (Area code 47) 75320
(DOMCAN A)
Territory: Albania

#### **BELGIUM**

Commercial Division
Canadian Embassy
rue de Loxum, 6
B-1000 Brussels, Belgium
Cable: CANADIAN
Phone: 513.79.40 (Area code 2)
Telex: (Area code 46) 21613
(DOMCAN B)
Territory: Luxembourg

#### CANBERRA\*

Commercial Division
Canadian High Commission
Commonwealth Avenue
Canberra ACT 2600, Australia
Cable: DOMCAN
Phone: 73-3844
Telex: (Area code 71) 62017
(DOMCAN AA62017)

\*The Canberra Office handles only those trade inquiries that require liaison with federal government departments and agencies

#### BRAZIL BRASILIA

Commercial Division
Canadian Embassy
Caixa Postai 07 0961
SES-Av. das Naçoes, lote 16
70.000 Brasilia, D.F., Brazil
Cable: CANADIAN
Phone: Brasilia 223-7515
Telex: (Area code 38) 611296
(611296 ECAN BR)

Territory: Central West, Northeast and Amazon Basin, Minas Gerais

#### RIO DE JANEIRO

Canadian Consulate
Caixa Postal 2164.ZC.00
Edificio Metropole
Avenida Presidente Wilson,
165/60 andar
20.000 Rio de Janeiro — RJ — Brazil
Cable: CANADIAN
Phone: 240-9912
Telex: (Area code 38) 2122583
(ECAN BR)
Territory: States of Rio de Janeiro,
Espirito Santo and Bahia

#### SAO PAULO

Canadian Consulate
Caixa Postal 22002
Edificio Top Center
Avenida Paulista, 854, 5o andar\*
Sao Paulo, Brazil
Cable: CANADIAN
Phone: 287-2122, 287-2234, 287-2601, 287-2213, 287-2011
Telex: (Area code 38) 1123230
(1123230 CCAN BR)
Territory: States of Sao Paulo, Parana, Santa Catarina, Rio Grande do Sul, and Mato Grosso

\*Businessmen are advised to send only letters to this address. To ensure prompt arrival of parcels of any kind, the sender should consult the Sao Paulo office first about the best method to use.

#### BRITAIN LONDON

Commercial Division
Canadian High Commission
One Grosvenor Square
London, W1X 0AB, England
Cable: SLEIGHING London
Phone: 629-9492 (Area code 01)
Telex: 261592 (CDALDN G)
Territory: England, Wales, Gibraltar

#### GLASGOW

Canadian Consulate Ashley House 195 West George Street Glasgow G22HS, Scotland Cable: CANTRACOM Phone: 248-3026 (Area code 041) Telex: (Area code 77) 778650

(CDAGLW G)

Territory: Northern Ireland, Scotland

#### CHILE

**Commercial Division** Canadian Embassy Ahumada 11, 10th Floor (Street Address) Casilla 771 (Mailing Address) Santiago, Chile Cable: CANADIAN

Phone: 64 189/62256

Telex: (Area code 34) 3520068

(3520068 DOMCAN)

#### CHINA, PEOPLE'S REPUBLIC OF

Commercial Division Canadian Embassy 10 San Li Tun Peking, People's Republic of China Phone: 521475

#### COLOMBIA

Commercial Division Canadian Embassy Apartado Aereo 53531/2 Calle 58 No. 10-42 Bogota 2, Columbia Cable: CANADIAN Phone: 235-5066/235-5477 Telex: (Area code 35) 44568 (DMCACO)

#### **COSTA RICA**

Territory: Ecuador

**Commercial Division** Canadian Embassy Apartado Postal 10303 6th Floor, Cronos Bldg., Calle 3y Avda Central San Jose, Costa Rica

Cable: DOMCAN SAN JOSE

Phone: 230588

Telex: (Area code 376) 2179

(DOMCAN)

Territory: Canal Zone, Nicaragua,

Panama

#### CURA

**Commercial Division** Canadian Embassy Apartado 6125 Calle 30 No. 518 esq. 7a Avenida Miramar Havana, Cuba (Send all mail to this address: **Commercial Division** Box 500 (HVA) Ottawa, Ontario K1N 8T7)

Cable: CANADIAN HAVANA

Phone: 2-6421/22/23

Telex: (Area code 28) 511586

(CAN CU)

#### **CZECHOSLOVAKIA**

Commercial Division Canadian Embassy Mickiewiczova 6 125 33 Prague 6, Czechoslovakia

Cable: DOMCAN PRAGUE

Phone: 326941

Telex: (Area code 66) 121061

(DMCNC)

#### **DENMARK**

**Commercial Division** Canadian Embassy Kr. Bernikowsgade 1 1105 Copenhagen K, Denmark

Cable: CANADIAN Phone: (01) 12 22 99

Telex: (Area code 55) 27036

(DMCNC DK)

Territory: Greenland, Faroe Islands

#### **EUROPEAN COMMUNITIES\***

Mission of Canada to the European Communities rue de Loxum, 6 B-1000 Brussels, Belgium

Cable: CANADIAN Phone: 513-0600

Telex: (Area code 46) 21613

(DOMCANB)

Territory: European Economic Community, European Atomic Energy Community, European Coal and Steel

Community

\*The Mission monitors economic and trade developments in the European Communities in terms of their potential and implications for Canadian interests. The Mission is also involved in develop-

#### **FINLAND**

**Commercial Division** Canadian Embassy Pohjois Esplanadi 25B 00100 Heisinki 10, Finland (Mailing Address: P.O. Box 779 00101, Helsinki)

Cable: DOMCAN HELSINKI Phone: 171141

Telex: (Area code 5) 121363 (121363 DMCNH SF)

#### FRANCE

Commercial Division Canadian Embassy 35 Avenue Montaigne 75008 Paris, France

Cable: CANADIAN PARIS Phone: 225-9955 (Area Code 01) Telex: (Area code 42) 280806

(DOMCAN A PARIS) Territory: Andorra, Monaco

#### **GERMANY (FRG)**

**BONN** 

Commercial Division Canadian Embassy Friedrich-Wilhelmstrasse 18 53 Bonn, West Germany Cable: CANADIAN Phone: 231061 Telex: (Area code 41) 886421

(DOMCAD) Territory: States of Baden-Wuerttemberg, Bavaria, Hesse,

Rhineland-Palatinate, Saar

#### DUESSELDORF

Canadian Consulate General immermannstrasse 3 4 Duesseldorf, West Germany Cable: CANADIAN Phone: 353471 (Area code 0211) Telex: (Area code 85) 87144 (DMCN D) Territory: State of North Rhine-

Westphalia

#### **HAMBURG**

Canadian Consulate General Esplanade 41-47 2000 Hamburg 36, West Germany

Cable: CANADIAN Phone: 351805

Telex: (Area code 41) 215555

(DMCNH D)

Territory: City States of Hamburg and Bremen; States of Lower Saxony and Schleswig-Holstein; West Berlin

#### GREECE

Commercial Division Canadian Embassy 4 Ioannou Ghennadiou Street Athens 140, Greece Cable: CANADIAN ATHENS

Phone: 739-511

Telex: (Area code 601) 215584

(215584 DOM GR)

#### **GUATEMALA**

**Commercial Division** Canadian Embassy Galerias Espana, 6th Floor 7 Avenida 11-59, Zona 9 Guatemala City, Guatemala, C.A.

Cable: CANADIAN

Phone: 64955/6/7 65839/63049 Telex: (Area code 37) 5206

(5206 DOMCAN GU)

Territory: El Salvador, Honduras

#### **HONG KONG**

Commercial Division Commission for Canada 14/15 Floors, Asian House 1 Hennessy Road P.O. Box 20264 Hong Kong, Hong Kong Cable: CANADIAN Phone: 5-282224, 5-282423 Telex: (Area code 802) 73391 (DOMCA HX)

#### HUNGARY

Territory: Macao

**Commercial Division** Canadian Embassy Budakeszi ut 55/dP/8 1021 Budapest, Hungary Phone: 365-728, 365-738, 165-858 and 365-087 Telex: (Area code 61) 224588 (CANADA H)

#### INDIA

**Commercial Division** Canadian High Commission P.O. Box 5208 Shanti Path Chanakyapuri New Delhi - 110021, India Cable: CANADIAN

Phone: 61-9461

Telex: (Area code 81) 312346

(DOMCAN NDI 2346)

Territory: Bhutan, Sri Lanka, Nepal,

Maldives

#### **INDONESIA**

Commercial Division Canadian Embassy 5th Floor Wisma Metropolitan Jl. Jendral Sudirman Jakarta, Indonesia (Mailing address: P.O. Box 52/JKT Jakarta, Indonesia)

Phone: 584417, 584566 and 584631 Telex: (Area code 73) 44345

(44345 DMCAN JKT)

#### IRAQ

**Commercial Division** Canadian Embassy P.O. Box 323 **Central Post Office** Baghdad, Iraq (Embassy located in the suburb of Al-Mansour)

Cable: DOMCAN BAGHDAD Phone: (Area code 01) 5521459 Telex: (Area code 491) 2486

(DOMCAN IK)

#### IRELAND

**Commercial Division** Canadian Embassy 65/68 St. Stephen's Green Dublin 2, Ireland

Cable: DOMCAN

Phone: (Area code 01) 781-988

Telex: (Area code 500) 5488 (DMCN EI)

#### **ISRAEL**

Commercial Division Canadian Embassy 220 Hayarkon Street Tel Aviv, Israel

Cable: CANADIAN Phone: 228122

Telex: (Area code 606) 341293

(241393 CANAD IL) Territory: Cyprus

#### **ITALY**

ROME

**Commercial Division** Canadian Embassy Via G.B. de Rossi 27 00161 Rome, Italy Cable: CANADIAN

Phone: (Area code 6) 864-327/855-341

Telex: (Area code 43) 610056

(DOMCAN I)

Territory: Provinces of Toscana, Marche, Umbria, Lazio, Abruzzi-Molise, Puglia, Campania, Basilicata, Calabria, Sicilia, Sardegna.

Other countries: Malta

#### MILAN

Canadian Consulate General Via Vittor Pisani 19 20124 Milan, Italy Cable: CANTRACOM

Phone: 652-600/657-0451 Telex: (Area code 43) 310368 (310368 CANCON I) Territory: Provinces of Emilia-Romagna, Lombardia, Piemonte, Trentino-Alto Adige, Veneto, Liguria, Trieste, Val d'Aosta, Friuli-Venezia Guilia

#### **IVORY COAST**

**Commercial Division** Canadian Embassy P.O. Box 4104 Le Générai Bullding Cor. Avenue du Commerce et Bottreau-Roussel Plateau Abidjan 01, Ivory Coast Cable: DOMCAN ABIDJAN Phone: 32-20-09 Telex: (Area code 983) 3593 (DOMCAN ABIDJAN) Territory: Liberia, Mali, Niger, Upper Volta, Togo, The People's Republic of Benin

#### **JAMAICA**

**Commercial Division** Canadian High Commission P.O. Box 1500, Royal Bank Building 30-36 Knutsford Boulevard Kingston 10, Jamaica Cable: CANADIAN Phone: 92-61500/92-61509 Telex: (Area code 291) 2130 (2130 BEAVER JA) Territory: Bahamas, Belize, Cayman Islands, Turks and Caicos Islands

#### **JAPAN**

**Commercial Division Embassy of Canada** 3-38 Akasaka 7 — Chome, Minato-ku Tokyo 107, Japan Cable: CANADIAN Phone: 408-2101/8 Telex: (Area code 72) 22218

(DOMĆAN J22218) Territory: Guam

#### **KENYA**

Commercial Division Canadian High Commission P.O. Box 43778 Nalrobi, Kenya SITUATED IN: **Comcraft House** Halle Selassie Avenue Cable: DOMCAN NAIROBI Phone: 334033

Telex: (Area code 987) 22198

(DOMCAN)

Territory: Comoro Islands, Djibouti, Ethiopia, Tanzania, Uganda, Democratic Republic of Madagascar, Mauritius, Réunion, Sevchelles

#### **KOREA**

**Commercial Division** Canadian Embassy 9th Floor, Hankook libo Building (Mailing Address: C.P.O. Box 6299) Seoul 100, Republic of Korea

Cable: CANADA SEOUL Phone: 73-0182/4

Telex: (Area code 801) 27425

(CANADA K27425)

#### **KUWAIT**

**Commercial Division** Canadian Embassy Plot 1, 28 Quaraish Nuzha (Mailing Address: P.O. Box 25281) Safat, Kuwait

Phone: 51.14.51/55.57.54

Telex: (Area code 496) MCAN 3549 KT NEW ZEALAND

(UNCLAS)

Territory: Bahrain, United Arab Emirates, Oman and Qatar

#### **LEBANON**

**Commercial Division** Canadian Embassy Sabbag Centre Hamra Street Beirut, Lebanon

Phone: 350665, 352196 Telex: (Area code 494) 20652 (DOMCAN 20652LE) Territory: Jordan, Syria

#### **MALAYSIA**

Commercial Division Canadian High Commission P.O. Box 990 A.I.A. Building, Ampang Road Kuala Lumpur, Malaysia Cable: DOMCAN Phone: 89722/5 and 89795 Telex: (Area code 84) 30269

#### **MEXICO**

**Commercial Division** Canadian Embassy

(DOMCAN MA 30269)

Apartado Postal 5-364 Melchor Ocampo 463, 7th Floor Mexico 5, D.F., Mexico

Cable: CANADIAN Phone: 533-0610 (Area code 905) Telex: (Area code 22) 1771191

(DMCNME)

#### **MOROCCO**

**Commercial Division** Canadian Embassy 13, Bis Rue Jaafar es Sadiq, (Mailing Address: B.P. 709)

Rabat-Adgal, Morocco Phone: 713-75/76/77

Telex: (Area code 407) 31964M (CDARABAT 31964MO)

#### **NETHERLANDS**

**Commercial Division** Canadian Embassy Sophialaan 7 The Hague, Netherlands Cable: CANADIAN Phone: 61-41-11 (Area code 070) Telex: (Area code 44) 31270 (31270 DMCN NL)

**Commercial Division** Canadian High Commission P.O. Box 12-049 Wellington North ICI Building, 3rd Floor Molesworth Street Wellington, New Zealand Cable: DOMCAN Wellington Phone: 739577 Telex: (Area code 74) 3577 (DOMCAN NZ3577) Territory: Cook Islands, Gilbert Islands, Tonga, Western Samoa, Fiji, New Caledonia, New Hebrides, Tuvalo, Niue, French Polynesia, Tahiti

#### **NIGERIA**

**Commercial Division** Canadian High Commission P.O. Box 851 **New Niger House** 1/5 Odunlami Street Lagos, Nigeria Cable: CANADIAN Phone: 653-630/1/2/3/4 Telex: (Area code 905) 21275 (21275 DOMCAN NG) Territory: Ghana, Sierra Leone, Angola

#### NORTH ATLANTIC COUNCIL

Delegation of Canada to the North Atlantic Council 1110 Brussels, Belgium Cable: CANDEL BRUSSELS Phone: 215-88-53

#### NORWAY

Commercial Division Canadian Embassy Postuttak Oslo 1, Norway Cable: CANADIAN Phone: (Area code 2) 46.69.55

Telex: (Area code 56) 11880 (11880 DOMCA N)

Territory: Iceland

#### **PAKISTAN**

Commercial Division Canadian Embassy P.O. Box 1042 Diplomatic Enclave Ramna 5 Islamabad, Pakistan Cable: CANADIAN Phone: 21101-04 Telex: (Area code 82) 82700 (5700 DOMCAN PK) Territory: Afghanistan

#### **PERU**

Canadian Embassy Libertad 130, Miraflores Casilla 1212 Lima, Peru Cable: CANADIAN Phone: 463890 Telex: (Area code 36) 25323 (25323 PU DOMCAN) Territory: Bolivia

Commercial Division

#### **PHILIPPINES**

Commercial Division Canadian Embassy P.O. Box 971, Commercial Centre Makati, Metro Manila 3117, Philippines Cable: CANADIAN Phone: 87-65-36 or 87-78-46 Telex: (Area code 75) 63676 (63676 DOMCAN PN)

#### **POLAND**

Commercial Division Canadian Embassy Matejki 1/5 **Srodmiescle** Warsaw, Poland

Cable: DOMCAN WARSAW

Phone: 29-80-51

Telex: (Area code 63) 813424

(813424 CANAPL)

Territory: German Democratic

Republic

#### **PORTUGAL**

**Commercial Division** Canadian Embassy Rua Rosa Araujo, 2 Seventh Floor Lisbon 2, Portugal Cable: CANADIAN

Phone: 56-25-49

Telex: (Area code 404) 12377

(DOMCAN P)

Territory: Azores, Madeira

#### ROMANIA

Commercial Division Canadian Embassy 36 Str. N. lorga C.P. 2966 Oficiul Postal No. 22 Bucharest, Romania

Phone: 50-63-30/50-59-56 Telex: (Area code 651) 10690

(CANADR)

#### **SAUDI ARABIA**

Commercial Division

Canadian Embassy King Abdul Aziz Street Queen's Building — 6th Floor P.O. Box 5050 Jeddah, Saudi Arabia Cable: DOMCAN JEDDAH Phone: 34597/8 Telex: 401060 DOMCAN SJ

Territory: Arab Republic of Yemen, People's Democratic Republic of Yemen, Somali Democratic Republic

#### SENEGAL

Commercial Division Canadian Embassy 45, av. de la République P.O. Box 3373 Dakar, Senegal Cable: DOMCAN DAKAR Phone: 20270 Telex: 632 (DOMCAN SG) Territory: Gambia, Guinea, Guinea-Bissau, Mauritania, Cape Verde Islands

#### **SINGAPORE**

**Commercial Division** Canadian High Commission P.O. Box 845 Faber House, 7 & 8th Floors 230/236 Orchard Road

Singapore 9, Singapore

Cable: CANADIAN Phone: 37-1322

Telex: (Area code 87) 21277 (DOMCAN RS21277) Territory: Brunei

#### **SOUTH AFRICA**

Canadian Embassy Nedbank Plaza Corner of Church and Beatrix Arcadia, Pretoria 0083, South Africa Mailing Adress: P.O. Box 26006 Arcadia, Pretoria 0007 Cable: CANDOM PRETORIA Phone: 487062-3-4

Telex: 3720 (3-720 SA) Territory: Botswana, Lesotho, Swazi-

land, St. Helena

**Commercial Division** 

#### SPAIN

Canadian Embassy Apartado 117 35, Nunez de Balboa Madrid, Spain Cable: CANADIAN MADRID Phone: 225-9119 Telex: (Area code 52) 27347 (27347 DOMCAN E) Territory: Provinces outside the peninsula — Balearic Islands, Canary

Islands

#### **SWEDEN**

Commercial Division Canadian Embassy P.O. Box 16129 S-103 23 Stockholm 16, Sweden Cable: CANADIAN

Phone: 23-79-20 (Area code 08) Telex: (Area code 54) 10687

(10687 DOMCANS)

#### **SWITZERLAND**

Commercial Division Canadian Embassy Kirchenfeldstrasse 88 3005 Berne, Switzerland Cable: CANADIAN BERNE Phone: 44-63-81

Telex: (Area code 45) 32489

(DMCNB CH)

Territory: Liechtenstein

#### THAILAND

**Commercial Division** Canadian Embassy P.O. Box 2090 The Boonmitr Building, 11th Floor 138 Silom Road Bangkok, Thailand Phone: 234-1561/8 Telex: (Area code 86) 2671 (DOMČAN TH2671) Territory: Laos, Kampachea, Burma, Bangladesh, Socialist Republic of Vietnam

#### TRINIDAD AND TOBAGO

**Commercial Division** Canadian High Commission P.O. Box 1246 **Huggins Building** 72 South Quay Port-of-Spain, Trinidad

Cable: DOMCAN PORT OF SPAIN Phone: 62-34787, 62-37254-8 Telex: (Area code 294) 226 (226 DOMCAN WG)

Territory: Barbados, French Guyana, Guadeloupe, Guyana, Haiti, Martinique,

#### **TUNISIA**

**Commercial Division** Canadian Embassy 2, Place Virgile, Notre-Dame de Tunis, P.O. Box 31, Belvédère, Tunis, Tunisia Phone: 286-577

Telex: 12-324

#### TURKEY

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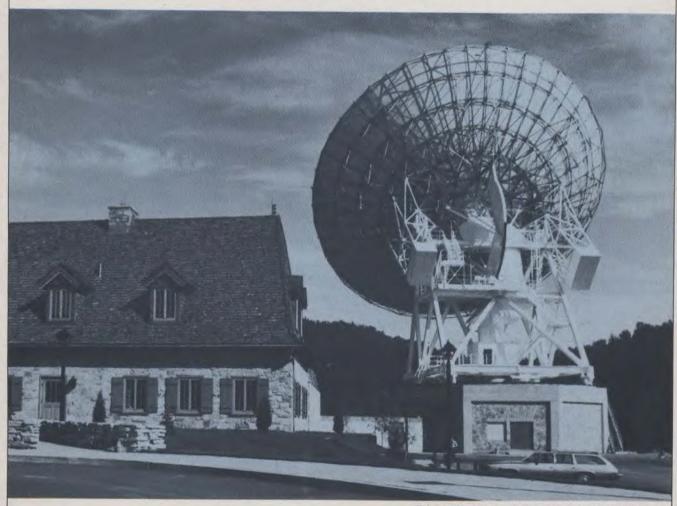


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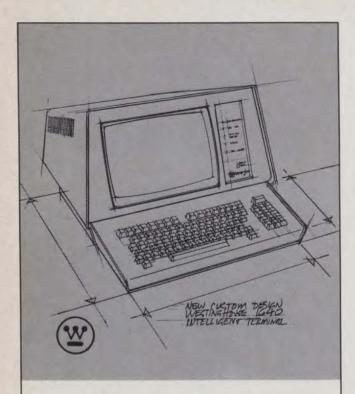
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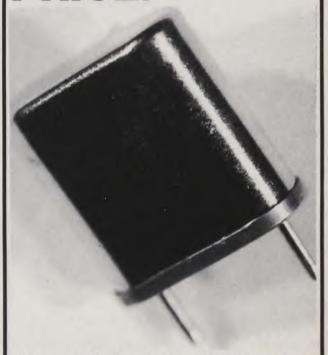


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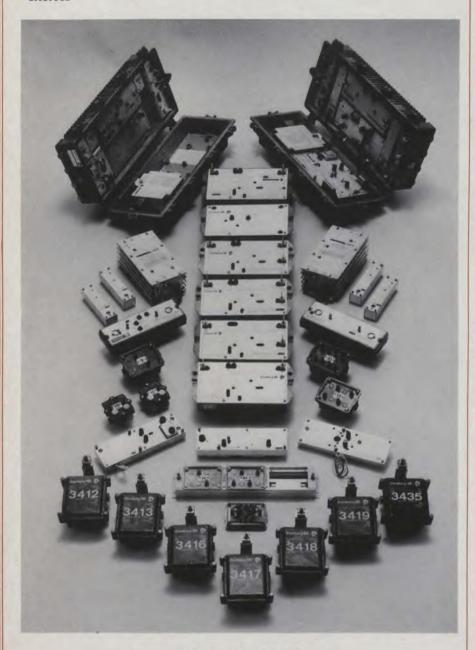
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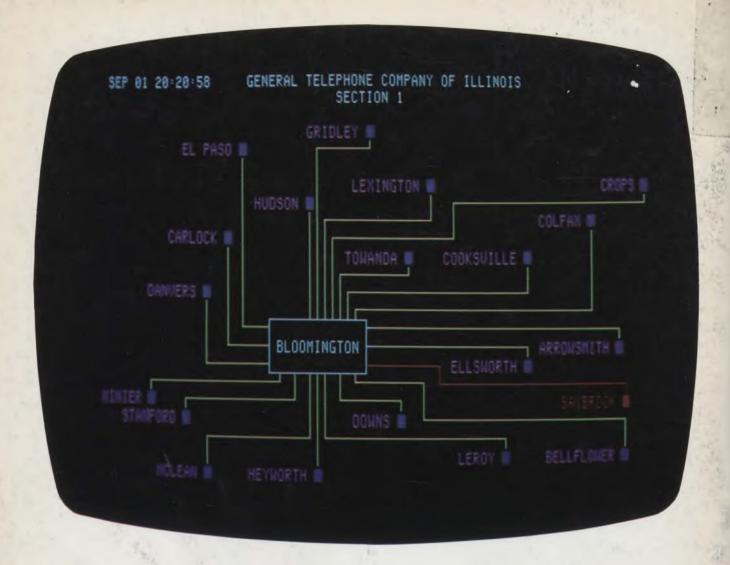
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