

CANADIAN MARCONI COMPANY





To anticipate a need and to have the resources to meet that need at the right moment are prerequisites for success in the field of high technology electronics. Throughout its history, Canadian Marconi Company (CMC) has designed products for the future and produced them at the appropriate time. The Company's communications and avionics equipment, radar and specialized components are known and used by armed forces, civil authorities and commercial institutions throughout the world.

Canadian Marconi Company is one of Canada's largest exporters of defence equipment, recognized internationally as an innovator and a leader in its field.

The Company's operations are divided into two major segments: the Communications Group which includes the Defence Communications Division and the Special Services Division; and the Electronics Group comprising the Avionics, Components, DataComm Products and Radar Divisions. A wholly-

owned subsidiary, CMC Electronics, Inc., based in New Jersey, augments the Company's activities in the United States.

CMC's executive offices and major manufacturing operations are located in Montreal, Quebec, as are four of the Company's six Divisions. The Radar and DataComm Products Divisions operate from CMC's facilities in Kanata, Ontario.

Canadian Marconi Company is a publicly held Canadian corporation. Its common shares are traded on the Montreal, Toronto and American stock exchanges. The General Electric Company, p.l.c. of England holds 51.6% of CMC's outstanding shares.



The Annual General Meeting of Shareholders will be held at Canadian Marconi Company 90 Trenton Avenue (corner Aberdare and Trenton) on Thursday, August 7, 1986 at 11 o'clock.

Pour obtenir une copie française de notre rapport annuel, prière d'adresser votre demande au Secrétaire de la Société.

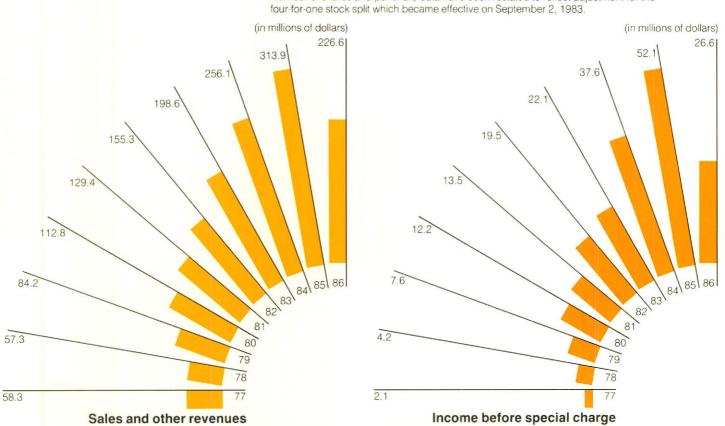
## Table of contents

	page
Financial highlights	4
Report to shareholders	6
Communications Group	8
Defence Communications	10
Special Services	14
Electronics Group	18
Avionics	20
Components	24
DataComm Products	28
Radar	30
Subsidiary company	32
Consolidated financial statements	33
Consolidated balance sheet	34
Consolidated statement of income	35
Consolidated statement of retained earnings	35
Consolidated statement of changes in financial position	36
Notes to consolidated financial statements	37
Auditors' report	39
Directors and officers	40

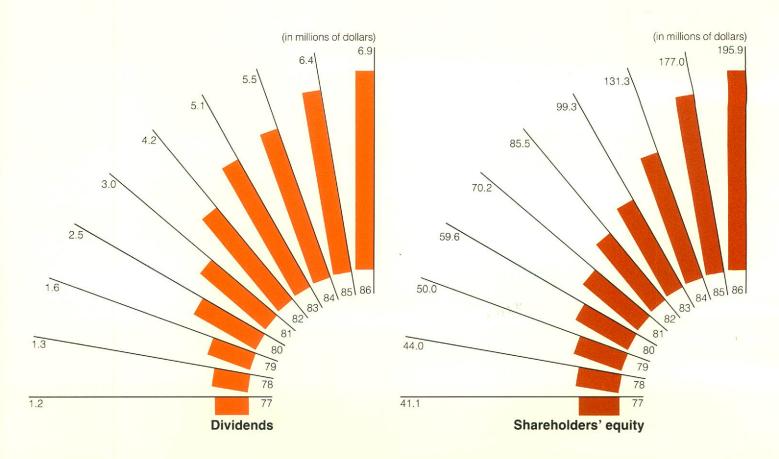
## **Financial** highlights Year ended March 31

	1986	1985
(in thousands of dollars, except as otherwise stated)		
Sales and other revenues	\$226,634	\$313,925
Income before special charge	26,630	52,088
Net income	25,841	52,088
Dividends	6,894	6,419
Shareholders' equity	195,919	176,972
Working capital	175,378	155,766
Number of shares (in thousands)*	23,773	23,773
Per share data (in dollars)		
Income before special charge	1.12	2.19
Net income	1.09	2.19
Dividends	0.29	0.27
Shareholders' equity	8.24	7.44

<sup>\*</sup> Number of shares and per share data have been restated to reflect adjustment for the



1984	1983	1982	1981	1980	1979	1978	1977
\$256,131	\$198,627	\$155,268	\$129,417	\$112,830	\$84,223	\$57,252	\$58,325
37,568	22,093	19,463	13,547	12,170	7,603	4,184	2,068
37,568	18,790	19,463	13,547	12,170	7,603	4,184	2,068
5,527	5,052	4,160	2,971	2,526	1,575	1,263	1,189
131,303	99,262	85,524	70,221	59,645	50,001	43,973	41,052
114,784	83,391	74,153	62,832	55,212	47,823	42,977	40,815
23,773	23,773	23,773	23,773	23,773	23,773	23,773	23,773
1.58	0.93	0.82	0.57	0.51	0.32	0.18	0.09
1.58	0.79	0.82	0.57	0.51	0.32	0.18	0.09
0.233	0.213	0.175	0.125	0.106	0.066	0.0531	0.05
5.52	4.18	3.60	2.95	2.51	2.10	1.85	1.73



## Report to shareholders

#### Review of the fiscal year

As foreseen in last year's report, sales and earnings declined sharply from the record levels achieved in the previous fiscal year. The downturn was due predominantly to lower deliveries of defence communications products to export customers, primarily the U.S. Army. This resulted from decisions to defer major procurements of radio relay equipment pending the outcome of a U.S. competition for the Mobile Subscriber Equipment (MSE) program, a series of updated field communication systems. The award was finally made late in 1985, and Canadian Marconi is teamed with the successful bidder as the designated sub-contractor for the supply of line-of-sight tactical radios.

Sales to certain overseas customers were also depressed by reduced spending programs in oil exporting countries.

Net income declined to \$25,841,000 or \$1.09 per share. A contributing factor in the reduction was an operating loss incurred by Sun World Circuits, Inc., a Florida-based manufacturer of printed circuit boards acquired in 1982, Sun World Circuits had been profitable during the previous fiscal year, but started to record losses in 1985, as a result of excess capacity in the industry supplying electronic components to U.S. computer and telecommunications equipment manufacturers, a situation which currently shows no sign of improvement. Sun World Circuits was sold in March 1986, resulting in a special charge of \$789,000, or \$0.03 per share.

A major project to supply ten telex exchanges to British Telecom, totalling nearly 60,000 line terminations, was completed during the fiscal year and all of the sites were in revenue service by September 1985. We have already obtained follow-on orders totalling over \$14 million from the same customer.

A number of successes were achieved in existing and new markets for the Company's range of avionics equipment. The first orders were obtained for microwave landing systems, and an order worth \$5.5 million was received for the development and production of new Doppler velocity sensors for the Canadian Armed Forces' Sea King helicopters.

One of the most significant achievements of the past year was the award of a contract for the design and development of a future secure tactical radio for the U.S. Army, known as the DUER (digital UHF ECCM radio) program. The contract, signed in March 1986, followed a lengthy competition with U.S.-based bidders, and is jointly funded by the Canadian and U.S. governments under the Canada-U.S. defence development sharing arrangements. The new radio is expected to begin to replace Canadian Marconi's AN/GRC-103, currently the most widely used military radio of its class in the world, during the early 1990's.

#### Outlook

Order intake in the fiscal year in review rose by about 30% from that in the previous fiscal year, and order backlog at year end stood at approximately \$210 million, compared with \$190 million in March 1985. Earnings are expected to recover in the coming year, as a result of moderately increased shipments from ongoing operations, and also as a result of actions recently taken to eliminate unprofitable and marginally profitable activities. However, it is unlikely that an improvement in the results will become evident until the second half of the new fiscal year.

For the longer term, the outlook is encouraging. The successes achieved in securing positions on the U.S. Army's MSE and DUER programs, noted above, should reinforce the Company's already leading international position in tactical radio relay markets. Supported by ongoing research and development expenditures which totalled approximately \$33 million in the fiscal year, all of the Company's operating divisions are addressing a broader range of market opportunities than at any time in the past.

#### **Dividends**

The Directors have declared a dividend of 14 cents per share, payable June 16, 1986, to shareholders of record as at May 23, 1986.

#### Directors and officers

In November 1985, Arthur S. Walsh resigned from the Board of Directors and was replaced by Rhys J. Williams, who had previously served as a director from 1977 to 1984, and also as President and Chief Executive Officer from 1977 to 1982.

In March 1986, Jack W. Dodds retired. Dr. Dodds had been a Vice President of the Corporation since 1969, and had rendered distinguished service in a number of senior positions since he first joined the Company in 1954. Special Services Division is now headed by Alexander H. Grant.

Frank B. Driscoll, formerly General Manager – Radar Division, was appointed a Vice President in February 1986.

At a meeting of the Directors held today, John R. Killick was appointed Senior Vice President of the Corporation.

#### Tribute to employees

The Directors wish to record their appreciation for the outstanding support of the more than 2,700 employees of the Corporation during a difficult year, and for their contribution to the successes that have been achieved in the marketplace.

P.E. Wheatley President

J.F. Grandy Chairman

May 15, 1986

## Communications Group

Some of the world standards for tactical communications equipment are among the products of the Communications Group. The Defence Communications Division produces multi-channel line-ofsight radios, multiplexers, field telephone switchboards, mobile communications centres, air defence operations centres and associated equipment. CMC's Command, Control and Communications (C3) Systems are used by armed forces around the world. The Company's military communications systems are designed for land-based applications, air defence programs and as a link between the two. These systems are augmented by specialized test equipment, technical services, logistics support and total system capabilities to produce radio terminal equipment such as the AN/TRC-180 Communications Shelter.

The AN/GRC-103 group of radio sets is one of the Company's outstanding success stories. Sales of various models of this tactical radio, which today number over 14,000 units, fill 70 percent of the global requirement for this category of equipment.

Servicing of precision instruments; repair and overhaul of electronic systems and installation and maintenance of communications systems are the principal activities of the Special Services Division. The expertise of this Division's specialized personnel covers all classes of electronic equipment including avionics, communication and electronic counter-measure systems, land-based data terminals, transmitters and receivers, parametric amplifiers, seismic detection and radar systems.

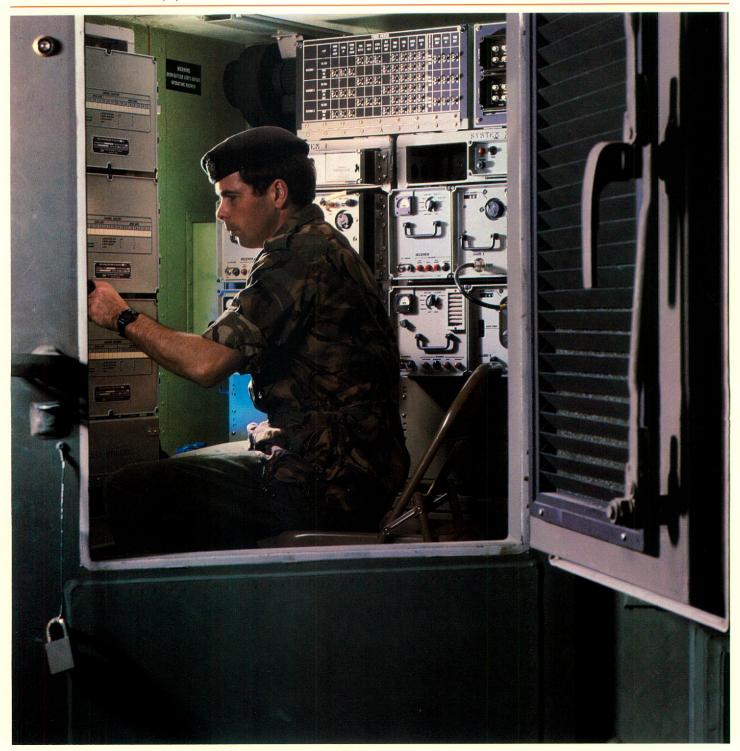
The skills and facilities of the Division are available to both CMC and its customers across Canada and on a world-wide basis. Ongoing contracts include calibration and repair of all test equipment for the Canadian Department of National Defence (DND) in Canada and West Germany.

Canadian Marconi's Special Services Division has won DND repair and calibration contracts consistently for more than a decade. Its Standards Facility in Montreal is the finest in Canada's private sector. All standards are directly traceable to the National Bureau of Standards and consequently, all measurement capabilities are endorsed by the formal approval of the Canadian government.

Recently integrated with the Special Services Division is the Commercial Communications Department which focuses its operations on the Canadian market. This Department represents a wide range of prominent manufacturers of electronic instruments and marine and land communications equipment for commercial use. In addition to these activities, the Commercial Communications Department also rents and leases mobile communications equipment.

Modern military technology has greatly accelerated the speed at which events can take place. This has shortened the time available for military forces to respond to a situation. The result is a world-wide need for more efficient, more sophisticated and more complex tactical communications equipment.

CMC remains at the forefront of integrated Command, Control and Communications (C³) technology. Among the many products and systems that CMC provides for military communications purposes is the AN/TRC-180(V) shelter-mounted Radio Terminal Set. This all-weather, all-terrain shelter provides twice the communications capacity of the shelters it is designed to replace, while solving many of the space and weight constraints that have been problematic in the development of mobile shelters.



## Defence Communications

Through this Division, Canadian Marconi has earned international recognition as a standard setter in Command, Control and Communications Systems (C³) for the armed forces. While supported by sales of existing products such as the AN/GRC-103 Radio Set, the most widely used tactical radio system of its kind in the world, the Defence Communications Division has insured its future profitability by continuous development of new state-of-the-art products.

This year, once again, the AN/GRC-103 Radio provided considerable revenue through sales of systems and spares to the United States Army and to six countries. The U.S. Army has used Canadian Marconi's multi-channel line-of-sight radio exclusively since the 1970s.

The year has been a significant one in terms of the acceptance of newer CMC concepts and products. The Division's Delta Modulation Multiplexer, the TD-5064/U, has been chosen by the U.S. Army as the replacement for their present equipment. Other armies of the free world have selected the new multiplexer and this has resulted in significant international sales of the TD-5064/U. These initial sales should provide impetus for further business around the world for this product.

A significant quantity of SB-4170/TT Field Telephone Switchboards has been sold to various countries around the world in 1985. The SB-4170/TT has also opened the door to a new market for the Defence Communications Division. During the year in review, a modest but significant sale of tactical switchboard systems was made to the People's Republic of China. The systems will undergo extensive evaluation in that country under field conditions. This first penetration of the Chinese market could lead to substantial future cooperation.

The U.S. government has selected GTE Government Systems Corporation of Massachusetts to be the prime contractor for the Mobile Subscriber Equipment (MSE) program, a field communication system for the U.S. Army. Canadian Marconi Company participated with GTE in the bid for this contract and will supply the line-of-sight radio equipment for the system. As a result, this major program will maintain CMC's rank as the supplier of line-of-sight systems to the U.S. Army over the next seven years.

One of CMC's successful products in the field of defence communications is the SB-4170/TT Telephone Switchboard. This 12-line, semi-automatic field tactical switchboard incorporates a circuit-switching crosspoint matrix which is microprocessor controlled. The switchboard is a self-contained unit of modular construction and is one-man transportable. It is designed for service in adverse tactical environments.

Two units, as demonstrated here, may be interconnected to service 24 lines with a single operator.

Reaction from defence agencies around the world has been excellent and points to a promising future for this product.



Perhaps the most significant contract secured by the Division over the past year was the order from the U.S. Army Communications-Electronics Command to design and develop the "next generation" tactical radio called the DUER (Digital UHF ECCM Radio). This advanced secure tactical radio is scheduled to go into service in the 1990s. DUER will include such sophisticated techniques as spread spectrum, forward error correction and null steering antennas, all of which will contribute to its ability to operate under very difficult conditions of electronic interference. The new radio will replace Canadian Marconi's world renowned AN/GRC-103 as the front line tactical communications link.

Canadian Marconi has pursued the DUER program for over two years. The award was made following a competition in which a number of U.S.-based suppliers participated. The DUER project will be jointly funded by the Canadian and U.S. governments under the Defence Development Sharing Program.

Together with the selection of Canadian Marconi as the supplier of multi-channel radios for the current U.S. Army MSE program, the DUER contract re-affirms the Company's position as a world leader in this category of defence communications equipment. Future production resulting from both the MSE and DUER programs will take place at the Company's principal manufacturing facility in Montreal.

One of the very promising new products introduced this year is the TD-1390/U Multiplexer which can be used as an integral part of CMC's AN/TRC-180(V) communications shelter or separately in other systems. The new Multiplexer combines two 15-channel streams of data or voice into one 30-channel stream to facilitate transmission. At the receiving end, the two streams are separated for normal utilization.

Other new Defence Communications developments, including a digital multi-channel radio and the Canadian Marconi Area Communications System (CMACS) attracted considerable interest at customer demonstrations and major international communications and electronics exhibitions during the year. Based on a distributed nodal system using automatic digital switching, the CMACS system could fulfill a substantial portion of the needs of the Canadian Forces and other armies of the world where it has been successfully demonstrated.

The deployment of defence forces in the face of sudden air attack demands the highest level of technology in surveillance and communications equipment. CMC's Defence Communications Division addresses this problem on a continuing basis in its product development programs.

Shown here, in the Division's product development laboratory, is a printed circuit board being evaluated on a test set designed by laboratory personnel. The printed circuit board will ultimately be integrated in a highly sophisticated command, control and communications system (C³) for use in an air defence operations centre application.



## Special Services

Long-term customer support including technical maintenance, calibration and test, and repair and overhaul of precision instruments and electronic equipment are the special skills of this Division. Ongoing contracts from the Department of National Defence include calibration and repair of precision measuring equipment used by the Canadian armed forces; observation of all physical engine testing of the Canadian Forces CF-18 fighter aircraft in West Germany and the servicing of all electronics involved in the test program; and electronic support and maintenance for DND's early warning defence systems and microwave communications systems. The Division operates and maintains the United States Air Force's ionospheric observatory in Labrador and supports satellite navigation receivers in Antarctica for the Chilean Research Institute. A long-term DND contract covers the regular inspection. maintenance and major overhaul of all the Department's antenna systems in Canada and West Germany.

The Special Services Division maintains technical personnel in locations around Canada and in Lahr, West Germany. Its services are frequently sought by customers in the United States, Europe, South America, the Middle East, Far East and Africa.

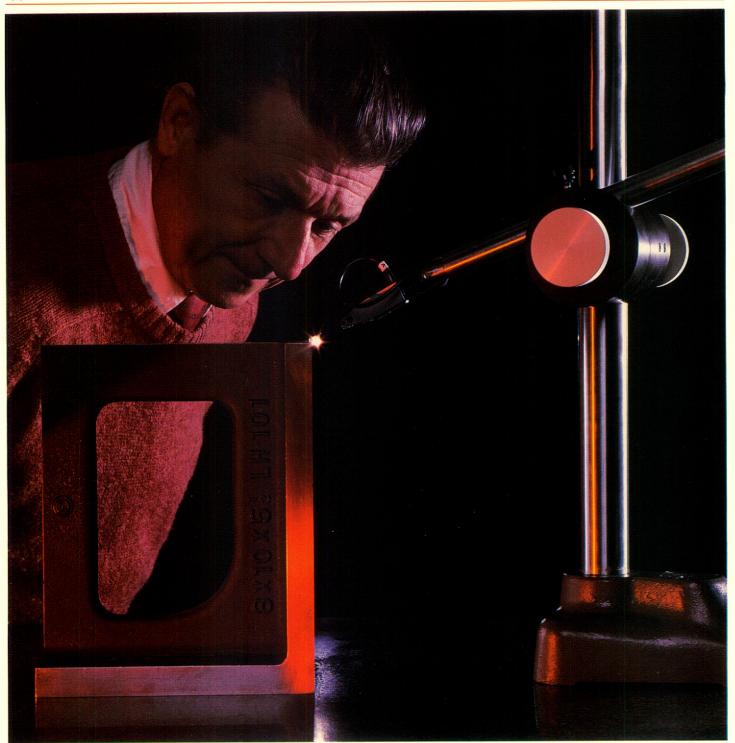
Three new Department of National Defence contracts awarded recently, virtually assure the base business of this Division for the next five years. The DND contracts cover the repair, overhaul and calibration of precision electronic and mechanical measuring equipment and general purpose test equipment.

Integrated this year within the Special Services Division is the Commercial Communications Department which will concentrate its operations in the domestic commercial market. Through a network of dealers and service establishments across Canada, the Division offers instrumentation as well as electronics and communications equipment and systems, for marine and land applications. To serve the Canadian market, the Division represents a number of high profile equipment manufacturers from around the world. Products include radar, automatic pilots, radiotelephones, depth-sounders, navigation systems, gyro compasses, telephone and teletype systems, tracking systems and a variety of mobile radio systems.

Gauge blocks and precision tooling such as the 90 degree angle plate shown in the photograph, are the basis for the strict precision of machined parts manufactured by CMC.

In its Physical/Mechanical Standards Laboratory, the Special Services Division uses specialized measurement equipment and trained personnel to calibrate production equipment and a variety of electrical and mechanical test apparatus.

The Physical/Mechanical Standards Laboratory is used by CMC divisions, suppliers and customers on a regular basis to verify equipment accuracies to plus or minus 5 one millionths of an inch.



Careful selection of products for the Canadian marketplace and aggressive marketing and sales activities indicate continued success in this area. At the Canadian High Technology Show this year, the Company received the "Best Product" award among a host of advanced electronics products displayed at the exhibition. The award not only recognizes the technical excellence of the product – a radio communications test set – but also confirms CMC's success in marketing electronic equipment manufactured outside Canada.

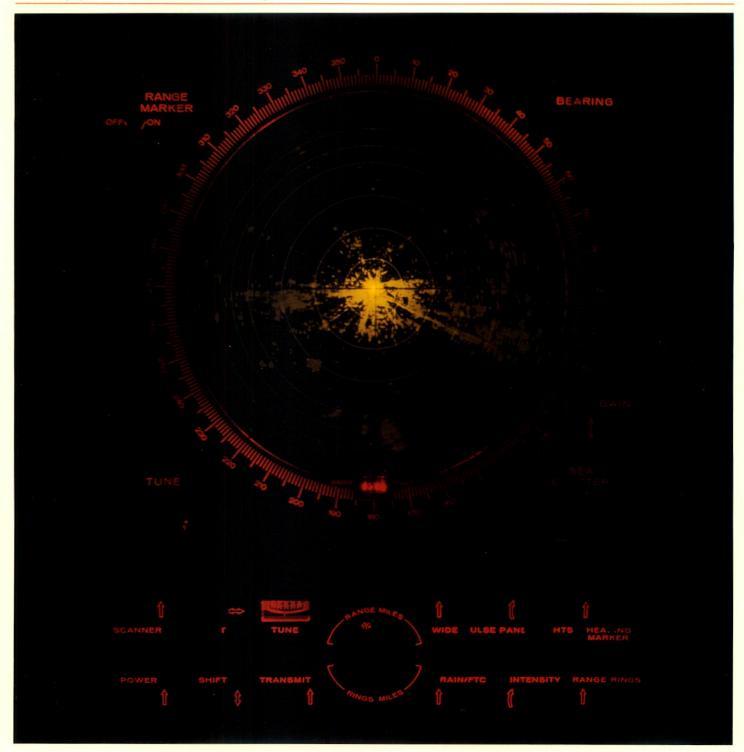
Sales during the year included navigation and radar systems for three Canadian government vessels; an integrated municipal communications system for a customer on the East coast; satellite communications systems to be used on a government ship operating off the West coast; and mobile radio equipment for a railway system in Western Canada. A large contract was awarded by the Canadian government for generators and the Company's St. John's, Newfoundland office received a contract from Petro-Canada Corp. to supply communications equipment for an oil drilling project in Kenya. Equipment included SSB systems with voice and facsimile transmission, and rural radio-telephones. The Kenyan project is the third contract in Africa for the St. John's office, following work with this Canadian oil company in Senegal and Ghana.

The Commercial Communications Department is expanding its dealer network and product lines to further increase its potential in the Canadian market.

The Commercial Communications
Department specializes in the Canadian
market for marine and land communications systems and associated electronic
equipment.

Operating through a country-wide network of dealers, the Department represents a number of internationally known equipment manufacturers. Motor fleet operators, railways and security forces are among the Department's customers for mobile radio and vehicle tracking equipment.

Specializing in sales and service to Canada's marine industry since the early 1900s, CMC is one of the country's leading distributors of marine electronics. Products in this field include radars, automatic pilots, sonars, depth sounders, navigation systems, gyro compasses and satellite communication systems.



## Electronics Group

In no other field is the pace of technological advance so rapid and so continuous as that of electronics. And in the world of high technology, there is no greater challenge to ingenuity and inventiveness than that of aerospace. Consistently meeting this challenge with highly successful products is the Avionics Division whose aircraft navigation, monitoring and display systems are used by the defence agencies of some 20 countries and by the airlines of 45 nations. The Division's colour-coded, vertical-scale engine instruments, using fibre optic technology unique to CMC, have set new standards for clarity and precision and are specified on a number of major U.S. military helicopter programs.

In anticipation of a vast market for Microwave Landing Systems (MLS) to replace Instrument Landing Systems (ILS) on a world-wide basis, CMC has designed, built and successfully tested MLS airborne receivers and has begun production of MLS ground stations.

Recent evidence of the trendsetting capabilities of the Avionics Division is the CMA-764 Omega/VLF sensor system, delivered in prototype, for Beechcraft's Starship 1, a new generation corporate aircraft constructed entirely of composite materials. The size and weight restrictions of this new aircraft necessitated a reduction of approximately 50 percent in the volume of electronics on board. Eleven months after the start of development work, the CMC prototype was delivered – probably the smallest and most advanced sensor of its kind in the world.

Many of the products and systems produced by the world's leading aerospace companies rely on the highly sophisticated components and subsystems provided by Canadian Marconi's Components Division. Products such as hybrid microcircuits, multi-layer printed circuit boards, illu-

minated panels, power supplies and precision machined parts are supplied by this Division to major international corporations. CMC itself relies on this Division for the specialized components it requires to produce avionics, communications and radar systems.

Recently, from a list of more than 3000 suppliers, General Dynamics presented an "Outstanding Supplier" award to the Components Division in recognition of its superior record for high performance and quality products.

With design, development and manufacturing facilities located in Kanata, Ontario, the DataComm Products Division specializes in Telex and Low Speed Data Exchanges. The Division's CMA-755 Telex Exchange is based on microprocessor technology. Its reliability, operating simplicity, easy maintenance and expandability were major considerations in its selection by British Telecom for the modernization of Britain's inland telex network. Calling for the design, production and installation of 58,368 line terminations across ten exchanges, this was the largest telex switching contract ever awarded. During this fiscal year, the contract has been completed and all of the new exchanges are now in service.

Also located in Kanata is CMC's Radar Division which has supplied systems for such projects as the Canadian Destroyer Life Extension (DELEX) program. For the DELEX program, the Division has designed a shipborne air search radar system which is effective in severe ECM and sea clutter environments. The Company's LN-66 surface search radar is used by the U.S. Navy in all classes of ships from river patrol boats to nuclear powered aircraft carriers and submarines. It is also used on U.S. Army marine craft and U.S. Navy LAMPS helicopters.

The Starship 1 is Beechcraft's entry in the marketplace for smaller and lighter corporate aircraft. Its design required a two-to-one reduction in the volume of electronics on board compared to conventional aircraft. Made entirely of composite materials, Starship 1 carries nine passengers in a sleek and aerodynamic fuselage of graphite/epoxy construction.

Under a subcontract agreement with Collins General Aviation, a division of Rockwell International, CMC has designed a new Omega/VLF sensor system to comply with the size and weight parameters of this new aircraft.

The CMC Omega Navigation Sensor (ONS) is a completely new design and makes extensive use of surface mount device technology and innovative packaging techniques. It is the smallest and most advanced ONS on the market today. An additional benefit to the customer is the new system's similarity in software to CMC's widely used and proven CMA-734 Omega/VLF sensor.



### **Avionics**

Products from CMC's Avionics Division have found acceptance with military and commercial users all over the world. The Division's major product lines encompass aircraft navigation systems including Omega, Navstar/GPS (Global Positioning System) and MLS (Microwave Landing System) airborne receivers as well as Doppler velocity sensors; monitoring, control and display systems for rotary and fixed-wing aircraft; and a range of ground-based navigational aids including DME (Distance Measuring Equipment), VOR (VHF Omni-Directional Range Equipment), ILS (Instrument Landing System) and MLS ground stations.

The year has witnessed intensive development activity in the Avionics Division. Work is proceeding on the CMA-900 Area Navigation System to be targeted at commuter and regional airlines and light military transport aircraft. The CMA-900 incorporates advanced surface mount technology and packaging techniques to produce a system that is one half the size of current navigation management systems. Production and delivery are expected to commence in 1987.

The future market trend is to fully integrated navigation systems and the Division is positioning itself to address this trend with a full range of navigation sensors and computers.

A prototype of CMC's new generation of vertical-scale engine instruments made its debut at this year's Marine Corps Military Exposition. The CMA-830 product line is novel in its use of liquid crystal display (LCD) technology, but retains the solid-state processing, vertical-scale presentation and colour-coding of the Company's CMA-730 incandescent instruments. During the year, CMC was awarded a research contract by a major helicopter airframe manufacturer for the development of round LCD engine instruments.

The Avionics Division has received a contract to replace Doppler velocity systems on board the Canadian Armed Forces Sea King helicopters. The 38 Sea Kings are used primarily for antisubmarine and search and rescue operations. The 20-year-old Doppler systems now on board will be replaced with state-of-the-art equipment. The new sensor will be similar to CMC's AN/APN-221 Navigation System now in service on U.S. Air Force helicopters and fixed-wing aircraft.

CMC has obtained a contract from Marconi Italiana to supply parts for the AN/APN-208 Doppler Navigation System. The contract is the latest in a series of agreements between CMC and sister company Marconi Italiana, ranging from technology transfer and licensed manufacturing to joint development ventures.

Canadair's CL-289 unmanned surveillance drone will be fitted with CMC's CMA-727 Doppler Velocity Sensor. The Canadian government has authorized Canadair to proceed with the preproduction phase of the system, a successor to Canadair's CL-89 drone currently in use with the armed forces of the United Kingdom, West Germany, France and Italy. Several other NATO countries have expressed interest in the new system.

Evaluation of CMC's Microwave Landing System (MLS) airborne receiver is successfully completed during a flight test. In anticipation of the global market for MLS to replace Instrument Landing Systems (ILS), CMC has designed, built and tested its MLS airborne receiver, and has commenced production of MLS ground stations. With MLS, aircraft will be able to use curved, segmented and high angle approaches to the runway. Using the latest electronic technology, the new MLS will allow greater flexibility in the use of airspace around airports by establishing several approach paths instead of the single path allowed by ILS.



The opportunity to apply its technology to a very large new marketplace has been given to CMC by way of a new contract from Bofors of Sweden. Under the contract, CMC will develop and manufacture the operator's display console for the Bofors Trinity gun system.

The Canadian Naval Electronic Warfare System (CANEWS) will be installed on ships being upgraded by the Department of National Defence and on Canada's patrol frigates now under construction. CMC has been contracted by MEL Defence Systems Ltd. of Ontario to design and produce omni-directional frequency antennas for the CANEWS Electronic Support Measure System.

CMC's development work on Global Positioning System (GPS) technology has led to two contracts. CMC has manufactured four advanced development models of its class D GPS receiver for evaluation by the Canadian Department of National Defence. Deliveries of these sets mark the final phase of a contract award to develop a military GPS receiver.

Two commercial GPS receivers sold to Environment Canada will be installed in late 1986 on board two Electra aircraft used to survey, plot and predict sea ice conditions off Canadian coastlines.

As international aviation prepares itself for conversion to Microwave Landing Systems, CMC is ready to respond. Flight tests and evaluation of the Avionics Division's MLS airborne receiver—the CMA-2000 Microlander—were successfully completed during the year for civil aviation representatives, the Department of National Defence and Transport Canada. Units for commercial use will go into production in 1986.

CMC is already producing commercial MLS ground stations under an agreement with Hazeltine Corporation of New York. This year saw the first sale of Canadian Marconi-built MLS ground equipment for the Government of Alberta. As a result of a joint development program between CMC and Marconi Italiana, a militarized version of the CMA-2000 Microlander will be supplied for the Panavia Tornado aircraft. This is the world's first order for military airborne MLS receivers. This new opportunity places CMC in an excellent position to address the huge world-wide market for MLS.

With the acquisition last year of the ground-based navigation systems operations of Philips Electronics Ltd, CMC has added ILS, VOR and DME equipment to its existing MLS capabilities, making Canadian Marconi one of the world's major suppliers of ground-based navigational products. The first VOR to be commissioned under CMC auspices entered service in Panama this year. The equipment incorporates a new antenna design completed by Canadian Marconi. Future installations of CMC ground navigational equipment are scheduled for a number of Caribbean islands as well as South America.

The CMA-882 is an avionics management and control system developed by the Avionics Division in response to the increasing need for a single unit that integrates several display and control functions. By organizing routine but vital information into a logical and easily accessible format, the CMA-882 simplifies the cockpit environment, allowing the pilot more time to concentrate on the more critical factors of a mission.

Through use of a MIL-STD-1553B or ARINC-429 data bus, the CMA-882 integrates communication, navigation and

identification (CNI) display and control functions. Other avionics systems can also be added.

CMC's new unit uses electroluminescent display technology to effect considerable space and weight savings and provide optimum visibility under all light conditions. These flat panel displays are solid-state, eliminating the use of vacuum, gas or fluid and are therefore more rugged than other displays.



## Components

The extraordinary performance capacities and ever-decreasing size and weight characteristics of modern electronic products are, to a large extent, the result of continuous development programs and highly sophisticated manufacturing processes effected by the producers of components and sub-systems.

The Components Division produces multi-layer printed circuit boards, hybrid microcircuits, power conversion systems, illuminated Night Vision Goggle (NVG) compatible displays, electronic components, magnetic devices and complex machined and plastic injection moulded parts. This highly automated Division is involved in the design and manufacture of a wide range of customized components for both military and high quality industrial applications.

Based in Montreal, the Components Division offers its customers a total service capability in the custom components field. This service includes initial design, environmental testing and volume production as well as total support. In addition, the Division has a build-to-print and test capability for electronic sub-systems and a wide variety of microwave components including complete antennas.

Among the Division's customers is CMC itself. Many of Canadian Marconi's avionics, communications and radar systems rely on these high performance components. In addition to this large "in house" market, the Components Division exports the major portion of its output to customers including North America's leading aerospace and defence companies. CMC components are used around the world in defence communications systems, avionics, airborne early-warning and guidance systems, and strategic naval and ground equipment.

The Division's component manufacturing facilities are among the finest in the world and meet all applicable U.S. and Canadian military standards.

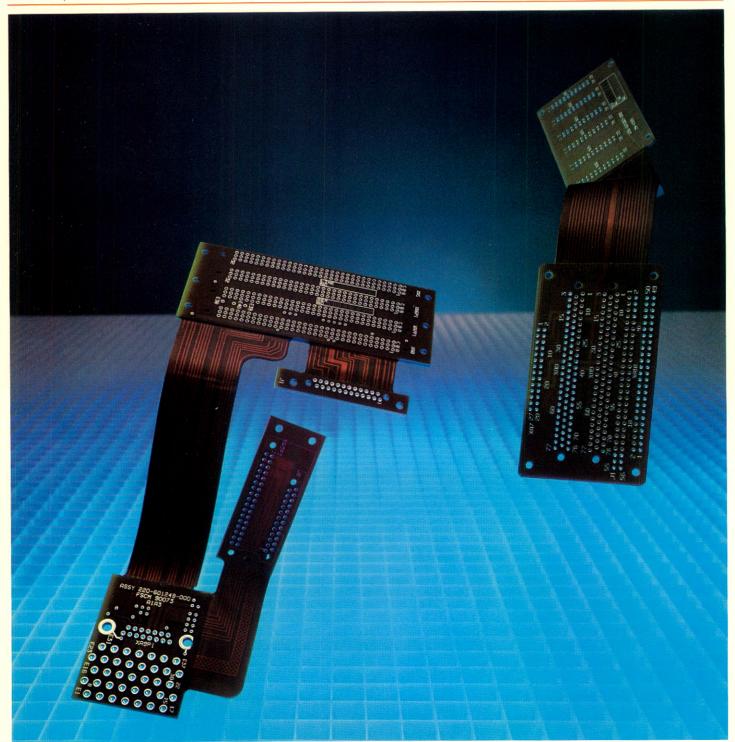
Sensitivity to evolving market needs, ongoing development programs and a willingness to invest in the latest manufacturing techniques have once again resulted in a broader customer base.

One of the Division's many successes this year was a large contract from Hazeltine Corporation of New York to design, develop and manufacture the power supply system for Hazeltine's new MLS ground station, the Model 2600, currently on order for U.S. airports.

As new avionics technology increases the amount of information available to pilots, space limitations in the cockpit become a major concern. CMC faces the challenge of designing and producing avionics systems that not only have greater capacity and performance but are both smaller and lighter.

A major factor in CMC's ability to meet such demands is the contribution of its Components Division.

The rigid flex printed circuit boards shown here are examples of the Components Division's pre-eminence in the field of packaging density. The three-dimensional design of these boards solves the problem of limited space in airborne equipment by allowing interconnection to take place on three planes.



As part of a three-year upgrading and expansion program associated with the Components Division's facilities, this year saw the start of work on a new "clean room" for the production of custom hybrid microcircuits. The new production area will meet the requirements of U.S. Military Standard 1772 which establishes stringent criteria for environmental conditions and manufacturing processes. Certification to this military specification will ensure that the facility remains at the leading edge of technology and continues to occupy a top ranking position as a supplier of strategic products to North American and other NATO defence contractors. It is expected that the new facility will be completed in the summer of 1986.

With more than 20 years' experience in the production of thick and thin film hybrid microcircuits, Canadian Marconi manufactures custom hybrids destined for use on sophisticated satellite communications systems, aerospace guidance and control systems, radar systems and advanced computer systems. The new facility will allow CMC to expand its microwave and millimeterwave capability and ensure higher reliability through improved manufacturing controls. The result will be increased production and greater product diversification.

During the year, efforts continued to further perfect the processing technology used in the production of the more complex types of multilayer printed circuit boards such as ultra-fine and core boards. In this area, product development has focused on expanding the variety of rigid flex boards as well as increasing the packaging density of surface mount boards. CMC builds to customer specifications with an emphasis on highly complex designs in multi-layer boards of up to 24 layers.

Development programs continued in support of the Division's specialized electronic components, power supplies, fibre optic displays, electroluminescent lamps and Night Vision Goggle display components.

Using its own hybrid microcircuits, precision heat sinks, multi-layer printed circuit boards, filters and magnetics, the Components Division, under a contract with IBM, has designed and produced this regulated power supply system to control all lighting aboard the U.S.A.F. Night Hawk helicopter. The CMA-889 Light Control Balancing Unit provides uniform brightness control over 72 lighting channels and represents the state-of-the-art in AC regulation technology.

During night missions, cockpit lighting in these aircraft must be greatly subdued yet sufficient for instrument readability with night vision goggles.



## DataComm Products

Based in Kanata, Ontario, this Division of Canadian Marconi is committed to the design, development and manufacture of telex systems and related products. Its first product was the Telex/TWX Converter which went into service in 1974 at Teleglobe in Montreal and at TRT in Fort Lauderdale to handle all switching protocol and code translation between TWX and telex systems. Further development resulted in the Company's CMA-745 international gateway exchange which has operated as the Teleglobe gateway for Canada since 1979.

The latest evolution of this product line has produced the CMA-755 Telex and Low Speed Data Exchange, a multiprocessor based system whose switching architecture is simple, yet unique. Each exchange comprises a number of processing modules which are used for front-end processing, routing and billing, store and forward, and broadcast and conversion. The processors communicate via a triplicated Time Division Multiple Access switch that is unique to the CMC system. Unlike other systems that require a central computer, the Canadian Marconi exchange relies on a series of microprocessors that make the system easy to expand and suitable for a large number of users. Reliability, simplicity of operation, ease of maintenance and expandability are major considerations in the design of this highly successful telex/data exchange.

Recognition of the superior capabilities of the CMA-755 came in 1979 when the system was chosen for the updating of Britain's inland telex network. Since the completion of the British Telecom contract this year, the largest contract of its kind ever awarded, the Division has received three further expansion contracts from British Telecom, When this work is completed in mid-1987. Canadian Marconi will have produced and installed some 70,000 telex termination lines across ten exchanges in Britain, including 24,000 lines at London's Keybridge exchange, making it the largest in England and one of the largest in the world. Completion of the mammoth British Telecom contract re-affirms CMC's success and dedication to serving the international telecommunications market.

For customers with smaller requirements, a new exchange has been developed from CMA-755 technology. The system has considerable potential around the world where customer requirements are within the 5000-line range. The new system will allow data carrier companies to offer their rural or small centre subscribers the same level of service available to users in major centres.

The Division's product diversification and development programs include conversion and gateway facilities designed to offer a high degree of interconnectivity between such varied communication networks as Telex, Teletex, Packet, and Electronic Mail.

During the year, the DataComm Products Division will continue to explore new market opportunities in those nations of the world that are seeking to expand their telecommunications system requirements. The telex exchange at Guildford, England is one of ten exchanges designed, produced and installed by CMC's DataComm Products Division for British Telecom's (B.T.) telex modernization program. Hardware and software for the huge project were designed, engineered, tested and integrated by CMC personnel who wrote documentation to cover every aspect of the program and trained B.T. personnel in systems operation, management and maintenance.

DataComm staff conceived and produced a training model, repair centre and software support model. CMC developed training courses for B.T. management, engineers, equipment operators and maintenance technicians.

The vast experience gained in this large-scale project is expected to pave the way to further success in the world-wide market for telex systems.



### Radar

During the year in review, the Radar Division has received a contract from Hollandse Signaalapparaten BV of the Netherlands for the co-production of Signaal Tracking and Illumination Radars (STIR) to be fitted on board the Canadian patrol frigates. The contract covers the assembly, integration and testing of five dual STIR fire control systems, with delivery and installation beginning in 1987. Production will start in May 1986 at Canadian Marconi's radar facilities in Kanata, Ontario.

The STIR system is linked to the surveillance radar and weapons system on the frigates to enable the tracking of possible threats from the air. The contract award marks an important step in the growth of the Radar Division, and shows that it has achieved international recognition of its capability to produce complex military radar systems.

CMC's surveillance radar systems installed last year aboard the Canadian destroyers, HMCS Nipigon and HMCS Terra Nova, have been successfully tested in operational exercises. A further two radar systems have been delivered to two other destroyers, the HMCS Restigouche and HMCS Annapolis, for the Canadian Navy's DELEX (Destroyer Life Extension) program. The remaining systems will be delivered over the next two years. The Division's AN/SPS-503 shipborne radar systems can be used in severe environmental and electronic jamming conditions and provide reliable air and surface target identification. Frequency agility, pulse compression and advanced signal processing techniques are some of the superior performance features of this compact, lightweight system. The modular design permits various system configurations.

Sales of the Division's LN-66 surface search radar systems to the United States armed forces continued throughout the year and development is well under way of new system capabilities which can be offered as modifications to the units currently in service. The LN-66 is designed to provide accurate data for target location and navigation as well as collision and adverse weather avoidance.

Current development work includes the Squint Antenna program which is close to completion. This high performance planar array antenna operates on S-Band and provides an alternative to conventional double curvature and horn-fed antennas.

A vital factor governing the performance of a radar system is the design of the antenna. The Squint Antenna shown here is the result of a Radar Division development program now nearing completion. For the project, Canadian Marconi engineers designed an S-Band high performance planar array antenna.

CMC's four-metre Squint Antenna is a compact air surveillance unit suitable for naval or ground-based operations. Its design uses a CMC proprietary technology approach that provides both improved performance and a smaller antenna profile than conventional antenna structures. CMC anticipates that the new product will increase its market position for this class of radar.



## Subsidiary company

CMC Electronics, Inc. (CMCE) is a whollyowned United States subsidiary of Canadian Marconi Company. CMCE assists Canadian Marconi's marketing efforts in the U.S. and also provides maintenance support and training for avionics equipment, and architectural design and development services for tactical communications systems.

CMCE's headquarters and R&D facility are located in Eatontown, New Jersey. Development projects include design work in RF systems, antennas, baseband processing and a family of interactive terminals incorporating customized software. Repair and overhaul activities are conducted at CMCE's facility in East Rutherford, New Jersey. Commercial and military avionics products and radar equipment are serviced at this location.

Following its successful proposal to the U.S. Army Communications-Electronics Command, CMC Electronics, Inc. delivered 310 User Readout Simulators (UROS) to the U.S. Army and Marine Corps during the past year. UROS is an interactive terminal which serves in training armed forces personnel in the use of the Position Locating Reporting System.

Research and development work in RF design was rewarded during the year with a U.S. Army contract to develop an Adaptive Power Applique for the AN/PRC-119 SINCGARS VHF tactical radio. This single channel air ground radio is a new generation system with advanced features such as frequency hopping.

CMCE's expertise in radio frequency engineering was instrumental in the recent selection of Canadian Marconi to design and develop the new generation DUER radio for the U.S. Army.

Consolidated financial statements

March 31, 1986

## Consolidated balance sheet

as at March 31

	1986	1985
	(in th	ousands)
Assets		
Current assets		
Cash and temporary investments, at cost, including accrued interest (approximates market)	\$157,961	\$126,425
Accounts receivable	40,070	40,605
Income taxes refundable	3,660	18,451
Inventories (Note 3)	33,252	47,124
Prepaid expenses	632	492
	235,575	233,097
Fixed assets, at cost, less accumulated depreciation (Note 4)	26,170	28,598
	\$261,745	\$261,695
Liabilities and shareholders' equity Current liabilities		
······································	\$ 56,059	\$ 72,142
Current liabilities	\$ 56,059 4,138	\$ 72,142 5,189
Current liabilities  Accounts payable and accrued liabilities		
Current liabilities  Accounts payable and accrued liabilities	4,138	5,189
Current liabilities  Accounts payable and accrued liabilities  Income taxes payable	4,138	5,189 77,331
Current liabilities  Accounts payable and accrued liabilities  Income taxes payable  Deferred income taxes	4,138 60,197 2,776	5,189 77,331 2,634
Current liabilities  Accounts payable and accrued liabilities  Income taxes payable  Deferred income taxes  Long-term debt (Note 5)	4,138 60,197 2,776	5,189 77,331 2,634
Current liabilities  Accounts payable and accrued liabilities Income taxes payable  Deferred income taxes Long-term debt (Note 5)  Shareholders' equity	4,138 60,197 2,776 2,853	5,189 77,331 2,634 4,758
Current liabilities  Accounts payable and accrued liabilities Income taxes payable  Deferred income taxes Long-term debt (Note 5)  Shareholders' equity  Stated capital – 23,772,768 common shares (Note 6)	4,138 60,197 2,776 2,853	5,189 77,331 2,634 4,758

Approved by the Board:

J.F. Grandy, Director

P.E. Wheatley, Director



## Consolidated statement of income

Year ended March 31

	1986	1985
	(in th	ousands)
Revenue		
Electronic products	\$210,764	\$299,937
Income from temporary investments	15,870	13,988
	226,634	313,925
Operating costs and expenses		
Manufacturing, selling and administration	158,401	209,158
Research and development, net of government participation – \$2,767,000 (1985 – \$3,010,000)	21,895	23,706
Depreciation	9,217	8,713
Interest on long-term debt	351	410
	189,864	241,987
Income before income taxes and special charge	36,770	71,938
Provision for income taxes (Note 7)	10,140	19,850
Income before special charge	26,630	52,088
Special charge (Note 8)	789	'_
Net income	\$ 25,841	\$ 52,088
Earnings per common share (in dollars)		
Income before special charge	\$1.12	\$2.19
Net income	\$1.09	\$2.19

## Consolidated statement of retained earnings

Year ended March 31

1986	1985
(in th	ousands)
\$166,756	\$121,087
25,841	52,088
192,597	173,175
6,894	6,419
\$185,703	\$166,756
	25,841

# Consolidated statement of changes in financial position Year ended March 31

	1986	1985
	(in th	ousands)
Working capital was provided from		
O <mark>perations</mark>		
Income before special charge	\$ 26,630	\$ 52,088
Depreciation	9,217	8,713
Deferred income taxes	142	180
	35,989	60,981
Proceeds and working capital deficit from disposition of subsidiary (Note 8)	1,394	_
Proceeds from sale of fixed assets	227	184
	37,610	61,165
Working capital was applied to		
Additions to fixed assets, net	10,018	12,951
Reduction of long-term debt	1,086	813
Div <mark>idends</mark>	6,894	6,419
	17,998	20,183
Increase in working capital	19,612	40,982
Working capital, beginning of year	155,766	114,784
Working capital, end of year	\$175,378	\$155,766



## Notes to consolidated financial statements

Note 4. Fixed assets

March 31, 1986

#### Note 1. Operations

The Company is engaged in substantially one class of business: the development, manufacture, and sale of electronic products. Export sales in the fiscal year amounted to \$163,085,000 (1985 – \$248,783,000).

#### Note 2. Summary of significant accounting policies

#### a) Principles of consolidation

The consolidated financial statements include the financial statements of Canadian Marconi Company and those of its subsidiary companies, all of which are wholly-owned. All significant intercompany accounts and transactions have been eliminated.

#### b) Inventories

Raw materials and bought-out components, work in process, and finished products are valued at the lower of cost and estimated net realizable value. Deductions are made for progress payments received and any losses incurred or expected to be incurred on contracts not completed at the balance sheet date.

#### c) Fixed assets and depreciation

Fixed assets retired or disposed of are eliminated from the asset and accumulated depreciation accounts. Gains and losses from disposals are included in income.

Depreciation is provided on the straight-line method at rates based on the estimated useful lives of depreciable assets.

#### d) Income Taxes

The Company provides for income taxes based on income included in the financial statements regardless of when such income is subject to payment of taxes under the tax laws.

Effective April 1, 1985, the Company adopted, on a prospective basis, the new Canadian Institute of Chartered Accountants' recommendation on accounting for investment tax credits. Such credits are now accounted for using the cost reduction method, whereas, previously they were accounted for using the flow through method. The adoption of the recommendation had no material effect upon reported net income for the year.

#### e) Recognition of revenue

Sales are normally recognized when products are delivered to customers, however, revenue from major long-term contracts is recorded on the percentage of completion method based on the ratio of the incurred costs to date to the projected total cost of completing the contracts. There were no contracts accounted for as major long-term contracts in 1986 and 1985.

### Note 3. Inventories

March 31	1986	1985
	(in thous	sands)
Raw materials and bought-out components	\$13,505	\$12,860
Work in process	39,226	44,073
Finished products	7,157	9,256
	59,888	66,189
Progress payments	(26,636)	(19,065)
***************************************	\$33,252	\$47,124

March 31			1986	1985
	Cost	Accumulated depreciation	Net	Net
		(in	thousands)	
l a wal	C 1 700	ď.	6 1 700	C 2 206

	COST	depreciation	1461	TVOL
		(in	thousands)	
Land	\$ 1,788	\$ -	\$ 1,788	\$ 2,206
Buildings	16,869	7,176	9,693	8.893
Plant, machinery and				
equipment	40,422	26,163	14,259	16,927
Equipment on rental	2,586	2,156	430	572
	\$61,665	\$35,495	\$26,170	\$28,598

The estimated useful lives of depreciable assets are as follows:

Buildings	25 to 50 years
Plant, machinery and equipment	up to 10 years
Equipment on rental	up to 4 years

Capital expenditures authorized and committed at March 31, 1986 were \$8,234,000.

There was no direct government assistance applied to fixed asset additions for the year ended March 31, 1986. Direct government assistance applied to fixed asset additions in the year ended March 31, 1985 amounted to \$1,959,000.

Note 5. Long-term debt

March 31	1986	1985
	(in thous	ands)
5¾% unsecured sinking fund debentures, Series A, due May 1, 1988	\$1,808	\$1,831
7% unsecured sinking fund debentures, Series B, due June 1, 1989	1,045	1,109
71/4% Seminole County Industrial Development Authority Revenue Bonds, due October 28, 1988 (Note 8)		2,761
due October 26, 1566 (Note 6)	2,853	5,701
Less: Due within one year included in	-,	
accounts payable and accrued liabilities	_	943
	\$2,853	\$4,758

The Series A and B debentures include sinking fund provisions which require payments aggregating \$475,000 annually in the fiscal years ending March 31, 1987 and 1988, \$1,975,000 in the year 1989 and \$1,050,000 in the year 1990. Debentures have been purchased and surrendered for cancellation in advance of the current requirements of the sinking fund provisions.

### Canadian Marconi Company

#### Note 6. Common shares

The Company maintains a share option plan for officers and selected senior managers of the Company. At March 31, 1986, common shares totaling 750,000 had been authorized and reserved for the plan. Participants in the plan are granted options to purchase common shares in the Company at the market value on the date of the grant. These options are exercisable after three years and they expire seven years from the date of the grant.

Options granted to participants in the plan are as follows:

Year granted	Price per common share	Outstanding at March 31, 1986
1984	\$26.875	119,000
1985	\$20.5625	126,500
		245,500

#### Note 7. Provision for income taxes

Year ended March 31	1986	1985
	(in thousands)	
Provision for income taxes based on a Federal income tax rate of 46%	\$16,915	\$33.091
Increase (decrease) in taxes resulting from:		
Federal surtax	471	
Federal abatement for provincial		
income taxes	(4,002)	(7,013)
Prov <mark>incial income taxes</mark>	2,165	4,680
Manufacturing and processing tax		
incentives	(1,825)	(3,762)
Investment tax credits on research and		
development expenses	(4,404)	(5,876)
Inventory allowance	(662)	(660)
Othe <mark>r</mark> items	1,482	(610)
	\$10,140	\$19,850

### Note 8. Disposition of subsidiary

In March 1986, the Company sold the shares of its wholly-owned subsidiary, Sun World Circuits, Inc., for cash. The excess of the investment in this subsidiary over the cash proceeds has been recorded as a special charge in the consolidated statement of income. Details of the disposition are as follows:

New March 1997 And Andrews Control of Contro	(in thousands)
Fixed assets, net	\$3,002
Working capital deficit	(700)
Long-term debt	(819)
Net assets	1,483
Less: Proceeds on sale	694
Excess of net asset value over	0.00
proceeds on sale	\$ 789

#### Note 9. Related party transactions

The General Electric Company, p.l.c. (GEC) of London, England, indirectly owns 51.6% of the outstanding common shares of the Company. During the fiscal year, the Company's sales to GEC and its subsidiaries amounted to \$18,768,000 (1985 – \$27,023,000). The Company purchased goods and services from GEC and its subsidiaries amounting to \$3,593,000 (1985 – \$3,117,000). At March 31, 1986, the Company had accounts receivable and accounts payable with these associated companies amounting to \$3,318,000 (1985 – \$5,396,000) and \$602,000 (1985 – \$1,076,000), respectively. Terms for these transactions were essentially the same as those with unrelated parties.

#### Note 10. Pension plan

At March 31, 1986, all vested past service benefits in the Company's pension plan were fully funded.



## **Auditors' report**

May 15, 1986

To the Shareholders of Canadian Marconi Company:

We have examined the consolidated balance sheet of Canadian Marconi Company as at March 31, 1986 and the consolidated statements of income, retained earnings and changes in financial position for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

In our opinion, these consolidated financial statements present fairly the financial position of the Company as at March 31, 1986 and the results of its operations and the changes in its financial position for the year then ended in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

rie Watertouse

Price Waterhouse Chartered Accountants Montreal, Quebec

## Directors and officers

#### **Directors**

\*Roger O. Beauchemin
\*Sidney Dobb, F.C.A.
\*\*Thomas S. Dobson
James F. Grandy
Jack E. Pateman, C.B.E., F.Eng.
Philip P. Ralph, F.C.A.
The Hon. Ian D. Sinclair, O.C., Q.C.
William I. Mackenzie Turner, Jr.
Philip E. Wheatley
Rhys J. Williams

President, Arrowby Consultants Inc., Montreal, Canada

Corporate Director, Chelmsford, Essex, England

Chairman, Easton United Securities Limited, Calgary, Canada

President, Reisman & Grandy Limited, Ottawa, Canada

Managing Director, GEC Avionics Limited, Rochester, Kent, England

Director of Corporate Finance, The General Electric Company, p.l.c., London, England

Senator, Ottawa, Canada

Chairman and Chief Executive Officer, Consolidated-Bathurst Inc., Montreal, Canada

President, Canadian Marconi Company, Montreal, Canada

Chairman, The Marconi Company Ltd., The Grove, Warren Lane, Stanmore, England

\*Member Audit Committee

\*Chairman Audit Committee

#### Officers

Frank B. Driscoll
Claude Filiatrault
James F. Grandy
James J. Kelly
John R. Killick
Lionel Léveillé
J. Gustave McInnes
Laurent Noël
Daniel Rosenthal
Claude St. Arnaud
Jean-Guy St-Germain
John H. Simons
Gerry Stuurop
Philip E. Wheatley

Vice President, Radar Division, Kanata, Canada

Vice President, General Counsel and Secretary, Montreal, Canada

Chairman of the Board, Ottawa, Canada

Vice President, Finance, Montreal, Canada

Senior Vice President, Ottawa, Canada

Vice President, Avionics Division, Montreal, Canada

s Comptroller, Montreal, Canada

Vice President, Defence Communications Division, Montreal, Canada

Vice President, Components Division, Montreal, Canada

Executive Vice President, Communications Group, Montreal, Canada

Vice President, Human Resources/Administration, Montreal, Canada

Executive Vice President, Electronics Group, Montreal, Canada

Treasurer, Kanata, Canada

President, Montreal, Canada

#### **Executive offices**

2442 Trenton Avenue, Montreal, Canada H3P 1Y9, Tel. (514) 341-7630

#### Subsidiary (U.S.A.)

CMC Electronics, Inc.

20 Meridian Road, Eatontown, N.J. 07724, Tel. (201) 389-2522

James E. Soos, Ph.D., President

#### Stock Exchanges

The Toronto Stock Exchange
The Montreal Exchange
American Stock Exchange

(CMW)

(CMW)

### Transfer agent & Registrar

Montreal Trust Company

777 Dorchester Boulevard West, Montreal, Canada H3B 4A5

### Auditors

Price Waterhouse

1100 Dorchester Boulevard West, Montreal, Canada H3B 2G4



