

Annual Report

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Building on Our Legacy of Excellence

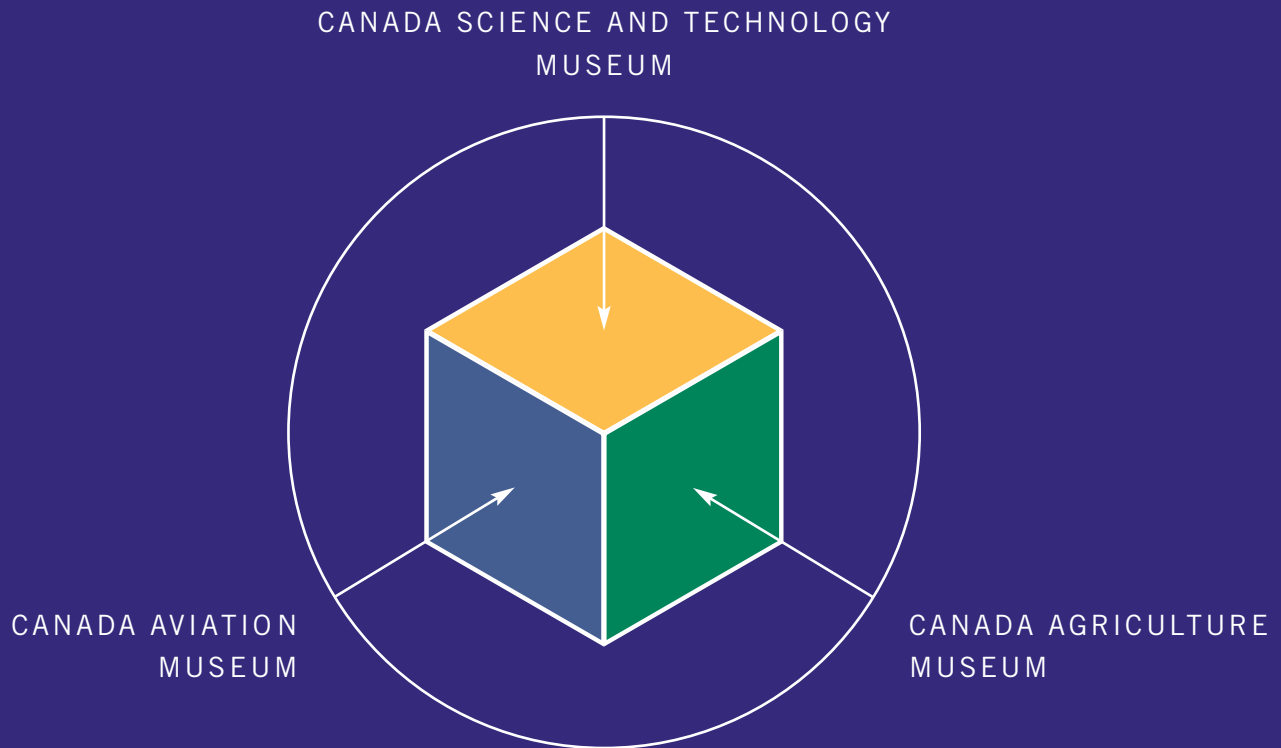


**Canada Science and Technology
Museum Corporation**

*Canada Agriculture Museum
Canada Aviation Museum
Canada Science and Technology Museum*

Canada 

CANADA SCIENCE AND TECHNOLOGY MUSEUM CORPORATION



To foster scientific and technological literacy throughout Canada by establishing, maintaining and developing a collection of scientific and technological objects, with special but not exclusive reference to Canada, and by demonstrating the products and processes of science and technology and their economic, social and cultural relationships with society.

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Chairman's Message

On behalf of the Board of Trustees of the Canada Science and Technology Museum Corporation, I am pleased to present the 2003–2004 Annual Report, detailing the Corporation's achievements over the past fiscal year. Much of the Corporation's focus was on the key accommodation projects identified as strategic priorities in the corporate plan.



Construction of a collection storage hangar at the Canada Aviation Museum began in Fall 2003, and the structure will be completed by August 2004. This new purpose-built storage facility will enable the Museum to properly store and meet the preservation needs of the existing aviation collection, as well as those

of future acquisitions over the next ten years. Construction of a new library, archives and administration building at the Museum will also be completed early next year.

The Corporation also continued its analysis and assessment of the requirements for a new Canada Science and Technology Museum building. A feasibility and functional study has been completed, and the results of this analysis will be communicated to the federal government when the Corporation moves forward to seek approval in principle for the project over the upcoming months.

The Board of Trustees was very pleased to complete the reappointment of Christopher J. Terry to a second term as President and Chief Executive Officer. Mr. Terry has made much progress on elevating the profile of the Corporation as a national institution serving all Canadians. We look forward to continuing our excellent working relationship over the next several years.

This past year saw the departure from the Board of two of its members: Faye Dawson-Flynn (Mississauga, Ontario) and Jacques F. Brunelle (St-Jean-sur-Richelieu, Quebec). On behalf of the Board of Trustees, I would like to express our sincerest thanks to Faye and Jacques for their valuable contributions. I would also like to welcome Mr. Walter Parsons of Ottawa, Ontario, who joined the Board of Trustees in June. Mr. Parsons's private-sector business background and experience in fundraising will be a valuable asset to the Board.

In closing, I wish to express my appreciation to the Board of Trustees, to staff, to our supporters, and to all our volunteers for their contributions, dedication and hard work.

A handwritten signature in blue ink that reads "Virender K. Handa".

Virender K. Handa

Chairman, Board of Trustees

Report from the President and CEO

The year 2003–2004 brought with it events which the Corporation could neither have foreseen nor planned for, although we have certainly had to cope with the consequences. Despite this unpredictable environment, I am pleased to report that the Corporation made significant progress on its key objectives, particularly those related to accommodation.



The past twelve months marked the achievement of a long-awaited milestone with the start of construction on the Canada Aviation Museum's new storage hangar, and its library, archives and administration facility. This work, which was well underway by the end of the fiscal year, will at last provide proper housing for

all of Canada's inestimable national aeronautical collection. Similarly, the library facility will finally replace the temporary structures and trailers which have been home to much of the Museum's staff and nationally significant library and archival collection for nearly twenty years. We look forward to the completion of these projects in 2004.

Throughout the year we also worked to consolidate work on our proposal for a new Canada Science and Technology Museum facility. This involved wide-ranging discussions with the many parties implicated in this significant undertaking, as a prelude to seeking approval in principle for the project in 2004. The urgency of this project continues to be underscored by independent corroboration of our engineering surveys of the buildings in which most of the Museum's collection is currently stored. These thirty-year-old, leased industrial-grade structures can no longer meet artifact storage standards without a complete rebuild.

Finally, we participated closely in a study dealing with the future of the Central Experimental Farm and the role of the Canada Agriculture Museum within it. A final decision on the planning framework for the Central Experimental Farm will permit us to plan with more certainty for the future of the Canada Agriculture Museum.

While these major facility issues loomed largest on our planning horizon, the Corporation's three museums also continued to welcome hundreds of thousands of visitors, receiving high praise for its work from clients and partners alike. In addition, we made progress on improving our electronic offerings with more downloadable products; we planned, executed and opened exhibitions and programs; and our staff maintained important roles within their professional communities.

We did this while struggling to deal with the impact of natural and manmade disruptions, ranging from SARS and *e.coli* to failure of the northeastern power grid, as well as the pressing need to align the priorities and activities of the Corporation within a constrained appropriation and earned income base. With great regret, this led to decisions affecting a number our staff, as well as adjustments to spending in a number of operational areas, in order to deal with strategic and non-discretionary expenditure requirements. Throughout this challenging period, our staff has remained the solid foundation on which our resilience as an organization is based, and the reason for our ongoing success in accomplishing our goals. Without our staff and their continued dedication, none of these results could have been achieved.

A handwritten signature in blue ink that reads "Christopher J. Terry". The signature is written in a cursive, flowing style.

Christopher J. Terry

President and Chief Executive Officer

Board Members and Committees

(as of March 2004)



Front Row, from left: Eric Lemieux, Olga Barrat, Gail Beck, (Christopher Terry) — **Back Row, from left:** Ron Foxcroft, Costanzo Gabriele, Patti Pacholek, Joachim Simard, Walter Parsons — **Absent:** Virender K. Handa, Roger Soloman.

BOARD MEMBERS

Chairman	Virender K. Handa (<i>Kitchener, Ontario</i>)
Vice-Chairman	Eric Lemieux (<i>Sillery, Quebec</i>)
Members	Olga Barrat (<i>Vancouver, British Columbia</i>)
	Gail Beck (<i>Ottawa, Ontario</i>)
	Ron Foxcroft (<i>Hamilton, Ontario</i>)
	Costanzo Gabriele (<i>Calgary, Alberta</i>)
	Patti Pacholek (<i>Regina, Saskatchewan</i>)
	Walter Parsons (<i>Ottawa, Ontario</i>)
	Joachim Simard (<i>Ville de la Baie, Quebec</i>)
	Roger Soloman (<i>Souris, Prince Edward Island</i>)

EXECUTIVE COMMITTEE

Chairman	Virender K. Handa
Members	Eric Lemieux
	Joachim Simard
	Christopher Terry (<i>President and CEO</i>)

AUDIT COMMITTEE

Chairman	Eric Lemieux
Members	Gail Beck
	Patti Pacholek
	Roger Soloman

MAJOR FACILITIES COMMITTEE

Chairman	Costanzo Gabriele
Members	Olga Barrat
	Virender K. Handa
	Joachim Simard
	Christopher Terry

DEVELOPMENT AND MARKETING COMMITTEE

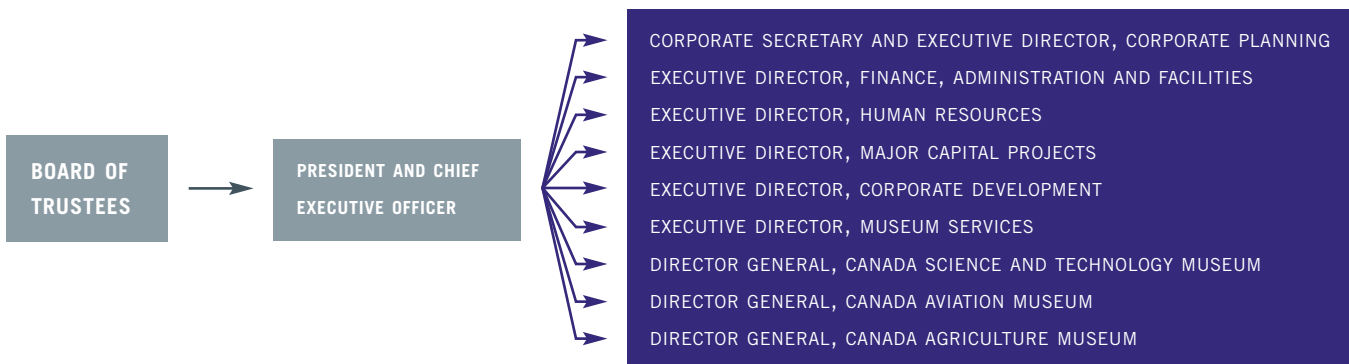
Chairperson	Gail Beck
Members	Olga Barrat
	Ron Foxcroft
	Walter Parsons

CANADIAN SCIENCE AND ENGINEERING HALL OF FAME COMMITTEE

Chairperson	Olga Barrat
Members	Costanzo Gabriele
	Patti Pacholek
	Roger Soloman

Corporate Governance

FIGURE 1 — ORGANIZATIONAL CHART



The mandate, powers and objectives of the Corporation are set out, in broad terms, in its enabling legislation. It is subject to Part X of the *Financial Administration Act*, which outlines the control and accountability framework for Crown corporations. The Corporation is ultimately accountable to Parliament, through the Minister of Canadian Heritage, and is part of the federal government's Canadian Heritage Portfolio. The Corporation receives an annual appropriation which it supplements through revenue-generating activities.

A Board of Trustees, whose members come from all regions of the country and are appointed by the Governor-in-Council, oversees the management of the business, activities and affairs of the Corporation. The Board has up to eleven members, including the Chair and Vice-Chair, and is supported by five committees: an Executive Committee, an Audit Committee, a Development and Marketing Committee, a Canadian Science and Engineering Hall of Fame Committee, and a Major Facilities Committee. The committees usually meet before each Board meeting or by teleconference, and report on their activities at each Board meeting.

- > **Executive Committee** — exercises the duties of the Board in the interval between Board meetings. The Committee held four teleconferences during the year.
- > **Audit Committee** — oversees the Corporation's financial and management controls, practices and information systems. The Committee held four meetings during the year.
- > **Major Facilities Committee** — ensures that best practices are followed with regard to the Corporation's major building projects, and provides general guidance to Management. The Committee held four meetings and one teleconference during the year.
- > **Canadian Science and Engineering Hall of Fame Committee** — provides advice on the Hall of Fame program. The Committee held three meetings and two teleconferences during the year.
- > **Development and Marketing Committee** — provides advice on development and marketing matters. The Committee held two meetings during the year.

The Corporation's daily operations are managed by the President and Chief Executive Officer, with support from a management team which includes Directors General from each of the three museums, and the Executive Directors of Museum Services, Finance/Administration and Facilities, Human Resources, Corporate Development, Corporate Planning and Major Capital Projects (see Figure 1).

During the past year, the Board of Trustees carried out its stewardship and accountability responsibilities in several ways. Firstly, with the current term of the President and CEO scheduled to expire in February, the Board undertook a review of the incumbent's performance and unanimously agreed to reappoint Christopher Terry for a second term of five years. Secondly, the Board held a day-long planning retreat with Management in August, to establish the strategic objectives to be included in the Corporation's five-year corporate plan. The results of this planning session provided the basis upon which the plan was developed. The plan was reviewed by the Board at its November meeting, and was approved at its meeting in January. Thirdly, the Corporation participated with the Office of the Auditor General in the follow-up to their 2000 Chapter 18 on Crown Corporation Governance. The Corporation had been one of the Crown corporations reviewed by the Office of the Auditor General in the preparation of their original report. The Auditor General also began its third cycle of special examination for the national museums. Their examination of the Corporation began in Fall 2003, and will be concluded early in the 2004–2005 fiscal year.

During the final quarter of the fiscal year, the federal government launched a comprehensive plan to modernize public-sector management and review government spending. Part of this initiative is an assessment of the governance and accountability regime for Crown corporations under Part X of the *Financial Administration Act*. This review will include an assessment of the capacity of Boards of Directors to effectively fulfil their responsibilities, and will suggest ways of strengthening management, transparency and compliance with the governance and accountability framework for Crown corporations. The reviews are scheduled to be completed by Fall 2004.

Corporate Profile

Mandate

The National Museum of Science and Technology, now operating as the Canada Science and Technology Museum Corporation (CSTMC), was established as an autonomous Crown corporation on July 1, 1990, with the passage of the *Museums Act*. The mandate of the Corporation as stated in the *Act* is:

To foster scientific and technological literacy throughout Canada by establishing, maintaining and developing a collection of scientific and technological objects, with special but not exclusive reference to Canada, and by demonstrating the products and processes of science and technology and their economic, social and cultural relationships with society.

The Corporation is responsible for the development and management of a representative collection of scientific and technological artifacts and materials. The collection focusses on seven major subject areas: aviation, communications, manufacturing, natural resources, renewable resources including agriculture, scientific instrumentation, and transportation. The Corporation manages three museums: the Canada Agriculture Museum (CAgM), the Canada Aviation Museum (CAvM), and the Canada Science and Technology Museum (CSTM). Each museum undertakes curatorial work and sets its own public programming activities and strategies, in recognition of the different markets and clientele it serves. The museums operate under a common set of corporate policies. Support services such as human resources, finance and facilities management are provided centrally.

Historical Background

The three museums managed by the Corporation have evolved under individual circumstances.

Canada Agriculture Museum

The Canada Agriculture Museum is located at Ottawa's Central Experimental Farm (CEF). The agricultural collection, previously maintained by the federal Department of Agriculture at the CEF, was transferred to the National Museum of Science and Technology in 1979. In 1983, discussions with Agriculture Canada resulted in a co-operative project, which established the Agriculture Museum in a refurbished historic barn at the CEF. In 1995, a new agreement leased additional buildings to the Museum, and transferred equipment as well as ownership of the showcase herds. Unfortunately, a tragic fire at the Museum at the end of August 1996 resulted in the loss of two historic buildings and 57 animals. Approval of government funding was obtained for construction of a replacement barn, and this project was completed in November 1999.

In 1998, the CEF was designated a National Historic Site by the Historic Sites and Monuments Board of Canada for its distinctiveness as a cultural landscape, for its ongoing research that contributes significantly to agriculture, and for the fact that it is a rare example of a farm within a city. Agriculture and Agri-Food Canada also undertook a public review of the future of the Central Experimental Farm, and the Museum's master site plan, completed in March 2000, is being considered within the context of the management plan for the CEF.

Mission

To discover and share knowledge about Canada's scientific and technological heritage, in order to increase an understanding and appreciation of the role that science and technology have played, and continue to play, in the transformation of Canada.

Canada Agriculture Museum



Canada Aviation Museum



Canada Science and Technology Museum



In November 2002, the Board of Trustees of the Canada Science and Technology Museum Corporation passed a bylaw establishing the Agriculture Museum as an affiliate museum of the Corporation. The by-law was approved by the Governor-in-Council in January 2003.

The Museum offers programs and exhibitions on Canada's agricultural heritage and on the benefits and relationship of agricultural science and technology to Canadians' everyday lives. It provides visitors with a unique opportunity to see diverse breeds of farm animals important to Canadian agriculture today and in the past. In addition to breeds common to Canadian agriculture, such as Holstein dairy cows and Charolais beef cows, the Museum also has Canadienne dairy cows, Tamworth pigs and Clydesdale horses. Many other breeds of dairy and beef cattle, pigs, sheep, horses, poultry, goats and rabbits round out the collection. Public programming activities include special weekend theme events, school programs, interpretive tours, demonstrations and joint efforts with community groups and associations.

Canada Aviation Museum

After a twenty-five-year gestational period, a National Aviation Museum was formed under the auspices of the National Research Council, and opened to the public in the new terminal at Ottawa's Uplands Airport (now MacDonald-Cartier International Airport) in October 1960. Initially falling under the Department of Northern Affairs and Natural Resources, in 1961 it was moved to the Department of the Secretary of State and reported to government through the Director of the Museum of Human History. The Museum's focus was on bush-flying, and on early attempts to manufacture aircraft in Canada. In 1964, most of the collection was relocated to Ottawa's historic Rockcliffe Airport, where it was jointly displayed with the Canadian War Museum's collection of military aircraft from several countries — dating from the First World War to the 1950s — and a collection of aircraft owned by the Royal Canadian Air Force, illustrating the history of the RCAF. This new, amalgamated and jointly managed collection, named the National Aeronautical Collection in 1965, provided a comprehensive perspective on the history and development of aviation, with a focus on Canada.

In 1967, the National Aeronautical Collection was brought under the auspices of the National Museum of Science and Technology and, in 1982, its Rockcliffe site was officially named the National Aviation Museum. In June 1988, a new building for the Museum was opened at Rockcliffe Airport, providing a significantly improved environment in which to display and preserve most of the world-renowned collection. Although the facility did not address all of the Museum's requirements, it was the most that could be accomplished with the funds available at the time. The need for additional space and amenities was recognized, and an acknowledgment made of the need for additional funding to house the collection properly. In 2000, the Museum changed its operating name to the Canada Aviation Museum and, in 2001, funds for the construction of a new collection storage hangar were approved, with its opening now scheduled for the summer of 2004.

Canada Science and Technology Museum

The Canada Science and Technology Museum (formerly the National Museum of Science and Technology) opened in November 1967. Although a purpose-built museum in the downtown core had been contemplated in the early to mid-1960s, when it opened, the Museum was housed at its present location: a former bakery distribution warehouse on a 12.2-hectare site at 1867 St. Laurent Boulevard, on what was once the southeastern fringe of the urban core. An addition designed to house and display some of the locomotives in the collection was constructed prior to the Museum's opening in 1967. It was recognized at the time that this accommodation was temporary, and that it could not provide appropriate long-term museum facilities. The property was leased until 1993, when the site was purchased by the federal government. Over the years, the building was gradually adapted, to the extent that its structure permitted, to meet the needs of museum use, as well as to address basic health and safety concerns. In 2001, the federal government announced that a feasibility study would be undertaken to examine the needs and costs for a new museum facility. This work is now complete and the resulting findings and recommendations await consideration by the government.

The Museum is unique in several ways. It is the only comprehensive science and technology museum in Canada. It was also the first national museum to focus a large proportion of its resources on exhibitions and programs, and to use demonstrations and interactive methods to engage the public's attention. Despite its inconvenient suburban location and less-than-ideal accommodation, it quickly became the most popular of the national museums, and has remained very popular to this day.

The Museum boasts the largest and finest collection of scientific and technological artifacts in Canada. Since its inception in 1967, the CSTM collection has grown particularly strong in the general areas of communication, transportation, and physical science. It also contains a number of exceptional assemblages, including the Ontario Hydro, Shields and Marconi collections. In support of the collection's ongoing growth and evolution, the Museum has also developed an exceptional library and photographic archive, which includes remarkable trade literature holdings and the outstanding Canadian National photo collection.

Environmental Scan

Environmental scanning aims at a systematic review of changes — in the economy, in society, among competitors, and in government — which could have an impact on the Corporation's museums. This scan looks three to five years into the future, although a more distant horizon is sometimes required in order to identify more gradual trends. These issues range from the basic conditions underlying any organization's planning concerns — such as demographic change — to more particular aspects of museum operation within the National Capital Region. Key environmental themes include the need for the Corporation to cultivate flexibility in responding to the changes of a rapidly diversifying world. Strategic vision is required to maintain a purposeful course through these numerous challenges and opportunities.

With every birthday, the museum-going family audience is declining. As Canada's Baby Boom generation and its children age, empty-nesters, grandparents, and senior singles will become as important as the traditional families with young children once were. Conversely, urban Native-Canadian communities are growing in size, technological capability, and economic and political importance. Immigration will bring in more families and children, mostly in the large urban areas, but these new Canadians may have different expectations of museums, or may ignore them altogether. How can the CSTMC be relevant to all these groups? Museum offerings will have to address this cultural diversity, both in content and in design.

Within the museum walls, demographic change will transform our workforce. Museums will find it harder to recruit and keep skilled workers, but the ultimate cost may be in the loss of organizational knowledge in what are quintessentially knowledge-based organizations.

This challenge faces all government organizations, forcing them to be relevant, accountable, efficient and effective. Changes in political leadership may bring about some changes in public policy, although the underlying socioeconomic trends remain. The priorities of Canadian content, cultural participation and engagement, connections, active citizenship and civic participation will be valid for the next four years at least. Heritage may not maintain its present priority, however, despite the current Canadian War Museum and Canadian Museum of Nature building projects. While maintaining their long-term responsibilities, museums must be sensitive to heritage policy to ensure their ongoing political relevance.

On the economic front, the only sure forecast seems to be variability. Parts of Canada will suffer a severe loss of capital and people, while others will experience a boom. The National Capital Region's high-technology sector underwent a major downturn with the burst of the dot-com bubble; however, new companies have bloomed and old ones with sound business plans have persisted. Corporate giving in the United States and perhaps in Canada is down, but our museums have managed to maintain lucrative partnerships because of our technology connection. Seen as a disruptive force in most environmental scans, technological change is the grist for our mill, providing sponsor and program opportunities in a world in which an exponential growth in technology makes the world seem like it is always poised on the brink of some major technological breakthrough.

Along with its economic benefits, globalization will continue to bring disease, political unrest and terror alerts. Our museums have weathered 9/11, hoof-and-mouth disease and SARS surprisingly well, but undefined disasters are still a risk for which we must somehow prepare.

Within the local museum market, urban sprawl and proliferating entertainment choices hamper growth in museum visiting, despite a burgeoning suburban population. Tourism has been sharply affected by post-9/11 fears and restrictions. As our amalgamated cities come to grips with these problems, opportunities will arise for cooperative ventures to expand the museum market beyond the National Capital Region.

Corporate Performance

Strategic Issues

The Board of Trustees of the Canada Science and Technology Museum Corporation had identified three strategic issues as priorities for the past year:

- > construction of a collection storage hangar at the Canada Aviation Museum;
- > defining the needs for a new Canada Science and Technology Museum building; and
- > reaching all Canadians and increasing accessibility to Canada's scientific and technological heritage.

Accommodation

Canada Aviation Museum Hangar

In 2001, funding was provided to construct a collection storage hangar at the Museum's Rockcliffe site. The new hangar will be situated to the south of the current structure, and will accommodate the seven aircraft stored outdoors, and most of those held in open storage. This storage building is the second phase of a multi-phased construction project, as foreseen in the 1992 site development plan for the Museum. At the same time, an addition is being constructed on the north side of the Museum building to accommodate administration, library and archives services.

In April 2003, the National Capital Commission (NCC) approved revisions to the 1992 Site Development Plan for the Museum, and also approved the conceptual plan that will govern all future expansion and development of the Canada Aviation Museum over a 15- to 20-year horizon. The NCC also gave specific project approval to the schematic design of the 8,000 m² hangar building and the 1,835 m² library/archives/administrative building. The project architect then started detailed design of the two facilities. Parallel to this work, the construction manager (CM) initiated the contracting process, consisting of 25 construction lots to be individually tendered. The CM began work in September, and construction began in October with the driving of piles, excavation/backfill work for site services,

and the laying of concrete foundations. Erection of the structural steel for the hangar started in February 2004, six weeks later than planned. This delay will move the final completion date of the hangar to August, with a July completion date for the library/archive/administration building. The two facilities will be delivered within the approved budget.

New Canada Science and Technology Museum Building

The CSTM has been situated at its present location — a site on St. Laurent Boulevard in an industrial park — since 1967. The original building was constructed in 1964 as a warehouse-grade structure, for use as a bakery distribution centre. It is now almost 40 years old, and close to the end of its originally anticipated life. The site and building have been gradually adapted to museum use over the years, but as the situation was meant to be temporary, any investments have tended to deal more with the safety and the structural integrity of the building, rather than with the development of museum amenities or programming. In 1998–1999, a Property Condition Assessment study, commissioned by the Corporation, identified a potential seismic hazard to the building, in the event of a more serious

South-west view of the construction of the new hangar.



Aerial View of the construction of the Aviation Hangar.



Concrete being poured for the flooring of the new hangar.



that a feasibility study would be undertaken by the Corporation to define the needs and costs of a new facility. The feasibility project, initiated in October 2001, was completed by February 2003. The study provided in-depth information, and generated a host of ideas for the vision and implementation of a new Canada Science and Technology Museum, and the demographic segments it will be serving in the future. Key to this vision is a proposed new vision statement for the Museum:

We explore, with all Canadians, the rich connections between science, technology, society and culture: an essential step in our understanding of ourselves and the world.

The vision and feasibility studies revealed that a new purpose-built Canada Science and Technology Museum, more centrally located, will contribute greatly to a number of the objectives recently set by the Prime Minister. As currently envisioned, the new Museum will be a leading international model of sustainable development, not only in its buildings and grounds, but also in its demonstration of state-of-the-art technology. With respect to environmental technology and LEED¹, it could be the first Platinum building in Canada. It could take a “brownfields” example of environmental degradation in the Nation’s Capital and make it the epitome of responsible development by the government of Canada, thus serving as a stellar example of how the spirit of the Kyoto Accord can be practically implemented, facilitating development of a healthy environment. The new Museum will thus bring people together and help them to understand issues related to sustainability.

In keeping with this newly articulated vision, the Museum will become a place where people can immerse themselves in a world of new ideas and experiences, discover the past, debate changing perceptions of what is possible, celebrate the creative aspects of science and technology, and query their own relationships with society and the natural world. It will be a museum that benefits all Canadians, celebrates Canada’s diversity, acts as a conduit of ideas and information, and builds a sense of Canadian identity. The new Museum will relate to Canadians’ daily lives and personal experiences without regard to age, gender or cultural origins. It will be a museum that facilitates self-direction; a museum that provides context and immerses visitors in a time period and its issues, resolutions and impacts; a museum that visitors can “take home” with them electronically; a museum that puts people in contact with the latest in science and technology. To wit, a truly national museum of international scope.

A building with similar architectural merit to the Canadian Museum of Civilization and the National Gallery has been recommended. The new purpose-built Canada Science and Technology Museum would offer a variety of experiences from the general to the specific, open access to the Corporation’s rich and diverse collection, and present exhibitions focussing on the current impact of technology on people, as well as technology’s past contributions to the development of Canada. Two construction phases separated by 15 years are recommended. The completed Museum would accommodate growth in both visitorship and collection for 25 years.

¹ The LEED (Leadership in Energy and Environmental Design) Green Building Rating System™ is a voluntary, consensus-based national standard for developing high-performance, sustainable building. LEED represents a process by which the degree of sustainable development is evaluated, with several levels of certification possible.

Reaching All Canadians

As a national institution, the Corporation plays an important role in fulfilling the federal government's objectives of strengthening the bonds of shared citizenship and creating an environment that allows for a greater understanding of Canadian society. The Corporation fosters, on the part of all Canadians, an understanding of their scientific and technological heritage, its place in their culture, and a sense of pride in Canada. Through its exhibitions, innovative programming, Web sites and publications, the Corporation strives to increase Canadians' scientific and technological awareness, and accessibility to this knowledge base.

Over the past year, activities aimed at increasing accessibility to the Corporation's collection and programs included the following:

Collaboration and Partnership — The Corporation initiated a number of collaborative initiatives and partnerships with organizations within the Canadian Heritage Portfolio, as well as with similar subject-based institutions, and anticipates the development of these into effective working relationships on behalf of the public and our partners.

> **National Museums** — The Corporation collaborated with the other national museums on a number of initiatives, several of which are highlighted below.

- i) **National Capital Region Visitor Survey Consortium** — Representatives from the marketing, evaluation, audit and visitor research functions of the Canada Science and Technology Museum Corporation, the Canadian Museum of Civilization, the National Gallery of Canada, the Canadian Museum of Nature, the National Capital Commission, the Library of Parliament, Rideau Hall, and the Royal Canadian Mint, had met the previous year to discuss a framework for cooperation in information-sharing. Visitor satisfaction and audience demographics are of interest to all museums, so this need was tackled first. Based on these discussions, the CSTMC determined that such a partnership was feasible, and began working towards its achievement. Summer surveys at all three of our museum sites were carried out using standardized, computerized survey kiosks and survey questions, to reduce bias. This data was combined with data from comparable summer surveys carried out by our partners, the Canadian Museum of Civilization and Rideau Hall. The five institutions were able to compare their individual results to the global average on over two dozen key measures such as demographics, satisfaction, museum visiting and advertising. The total cost of this project was less than what would have been incurred, if all partners had carried out individual telephone surveys, by a factor of at least ten.

- ii) **Museum Passport** — Canada's Capital Passport — an initiative which was coordinated by a representative from the Canada Science and Technology Museum and the Canadian Museum of Nature — was successfully released into the local tourism market in June 2003. Although there was limited promotion surrounding the new product, each of the partner institutions reported both sales and redemption of coupons. The group will officially relaunch the Passport in time for the 2004 summer tourist season.
- iii) **National Symposium on the Future of Museum Research in Canada** — In cooperation with representatives from the national museums and others, and led by the Canadian Museums Association, the Corporation was represented on the planning group for the conference to be held in the Fall of 2004.

> **Canadian Heritage Portfolio** — As part of the Canadian Heritage Portfolio, the Corporation participated with agencies and Crown corporations such as the National Arts Centre, the National Archives, the Canadian Heritage Information Network, the Canadian Conservation Institute and the National Capital Commission in a variety of exhibition and programming endeavours. The Corporation was also a member of the History/Heritage and Outreach policy clusters created by the Department of Canadian Heritage, aimed at providing an integrated Portfolio approach to policy issues.

> **Other Government Departments and Agencies** — Discussions continued with the Canadian Space Agency (CSA) and the Canadian Conservation Institute (CCI) to establish Memoranda of Understanding (MOUs) with each of the institutions. These agreements will result in further preservation of artifacts associated with each of the agencies, programming benefits for the public, and a greater focus on the significant scientific and technological contributions being made by Canadians and Canada. Such benefits are exemplified by an MOU with Meteorological Services of Canada (formerly the Atmospheric Environment Service) in 1986, which established a publically accessible collection of international significance at the CSTM. This agreement is currently being updated and will reaffirm the commitment of the Corporation and Meteorological Services of Canada to preserve the material history of this vital aspect of Canadian science and technology.

The Corporation was represented at "Presence of the Past: a National Conference on Teaching, Learning and Communicating the History of Canada" sponsored by Canadian Heritage in Halifax in October 2003. The place and importance of the history of Canadian science and technology was missing from the program, and representations were made to ensure its inclusion at the next biennial conference.

Donors enjoying a behind-the-scenes tour at CAVM during the Donor luncheon, November 2003



Canadian Forces Day — Spectators enjoying the many air demonstrations by Canada's famous aerobatic team, the Snowbirds.



PERFORMANCE INDICATOR

Attendance at the Corporation's three museums declined only slightly (2%) over the previous year, despite factors such as SARS, the August blackout and reduced public hours.

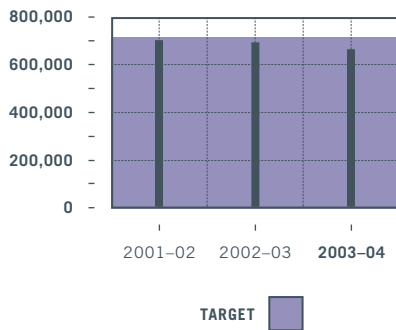
Working with Laval University in Quebec and Memorial University in Newfoundland, planning for an international material culture conference on the subject "Technology and the Body", to be held at the CSTM in November 2004, was initiated. Research and artifact selection was also completed for an exhibition on Morse Code: a partnership venture between the Royal Ontario Museum, the Pearson International Airport Authority and the CSTMC. The exhibition is planned to open in the new Terminal One building at Pearson Airport in Spring 2005.

Internet — The number of visitors to the Corporation's Web sites continued to increase significantly, with user sessions up 58% over last year. This dramatic growth demonstrates the impact that the Internet has had on the way museums can make their knowledge base and products accessible to a much broader audience.

Public Facilities — The Corporation's museum sites continue to be a primary way of making its collection and programs accessible to Canadians. Total onsite attendance slightly exceeded 675,000 visits, down about 2% in comparison with the previous fiscal year (see Figure 2). Against the target identified in the corporate plan, results were down about 8.5%. A number of factors were thought to have contributed to the decline in attendance: Ontario's SARS outbreak, the August hydro blackout, and reduced hours of opening and programming resulting from budgetary pressures.

Diversity — This past year, the Corporation struck a Diversity Committee composed of representatives from each of its three museums. The Committee was tasked with identifying key issues for the Corporation to consider in its desire to become more culturally diverse and socially inclusive. Three projects were initiated as preliminary steps toward the drafting of an approach to "institutionalize" inclusion in the operations of its Museums.

- > **A Review of the CSTMC's Approach to Social Inclusion and Cultural Diversity** — This paper observed that the CSTMC's approach to social inclusion and cultural diversity has, in the past, been limited by the rather narrow definition of the institution's mandate. That definition was the product of a number of historical factors, both administrative and intellectual. At its most abstract level, the history of science and technology was seen by many scholars, scientists, engineers and museum professionals as a specialized subject area — related to but separate from political, social and cultural history by virtue of its highly technical content.
- > **International Approaches to Inclusion** — A study was initiated to look at international approaches to social inclusion and cultural diversity in science and technology museums and science centres, particularly with reference to indigenous peoples. This will form the basis of a staff resource centre.

FIGURE 2 — CSTMC ATTENDANCE (Target = 740,000)

- > **Aboriginal Perspectives: Inclusion in CSTMC Operations and Programs** — This paper provided an environmental assessment from a number of perspectives, including the interface of First Peoples and science and technology, as well as the CSTMC's position and potential in addressing greater integration at its Museums.

Representation by the CSTMC at the annual conference of the Canadian Aboriginal Science and Technology Society, held in Saskatoon in September 2003, established a link with a community of scholars having potential research and program affinity with the Corporation. An ongoing relationship with the Society and its members will be established. The CSTMC was also represented at the conference sponsored by Canadian Heritage called "Destinations: A National Gathering on Aboriginal Culture and Tourism", held at Whistler, B.C. in November 2003. This resulted in discussion of potential partnership exhibitions on topics related to Aboriginal science and technology, as well as the establishment of program links with the Aboriginal Peoples Television Network.

Affiliate Museums — As a means of extending its outreach program, the Corporation continued to develop an innovative program which would see the Corporation partner (affiliate) with other museums across the country. By establishing mutually beneficial affiliations (partnerships) with museums and cultural institutions across Canada, the Corporation would be able to further address its national mandate and more broadly share its national collection, its exhibitions, its demonstrations, its educational programs and its expertise.

National Registry — The Corporation is working on the development of a National Registry of Significant Artifacts in Science and Technology, in conjunction with its collection development process. Collection assessment work in all of the major subject areas will result in a description of the ideal artifact collection to represent and illustrate each of the Corporation's major subject areas. Once established, this Registry will serve to increase the recognition and profile of Canada's scientific and technological heritage, while greatly enhancing and facilitating its preservation, interpretation and access. However, progress on the project slowed during the fiscal year due to limited resources.

Artifact Loans — The richness of the Corporation's collection is one of its significant strengths. In order to increase access to its artifacts, the Corporation maintains an active loan program — including individual artifacts as well as portions of collections — to institutions throughout Canada, the United States and abroad. The Corporation's loan program helps to ensure that Canadians can experience firsthand what has been preserved on their behalf. Last year, approximately 2.8 million visitors saw artifacts on loan in the various borrowing institutions.

Travelling Exhibitions — Two travelling exhibitions — **Canadarm** and **Bikes: The Wheel Story** — were presented this past year at two different venues.

PERFORMANCE INDICATOR

Approximately 2.8 million visitors saw **CSTMC** artifacts on loan to various institutions worldwide.

Primary Activities

Heritage Preservation

Research

Research comprises those activities which contribute to the building of a knowledge base on the scientific and technological heritage of Canada. The Corporation has identified seven major subject areas on which to focus its research activities: aviation, communications, manufacturing, natural resources, renewable resources including agriculture, scientific instrumentation, and transportation.

Research generates the knowledge required to help the Corporation make informed decisions regarding the content of the collection, as well as providing a knowledge base which is shared through exhibitions, Web sites and publications.

Research activities are carried out in support of the following objective:

To identify concepts and ideas key to the understanding and appreciation of the scientific and technological heritage of Canada.

Central to the research program is the identification and analysis of important concepts, ideas and issues key to the historical development of each main subject area. The Corporation has adopted a conceptual theme — the Transformation of Canada — to provide a framework for its research program.

The transformation of Canada, from the period of early exploration and settlement to the present, has been marked by achievements in science and technology. There is an ongoing relationship between science, technology and Canadian society which has changed Canada, influenced its people, and will continue to do so.

Historical research directed at the theme and sub-themes of the Transformation of Canada forms a body of knowledge which covers the most important aspects of each major subject area. Major subject areas are subdivided as required to break the research into manageable parts. Several recommendations from the first phase of a review of the collection development strategy, completed in February 2003, were implemented at the CSTM in 2003–2004. A “binary approach” to the definition of collection subject areas, which combined the strengths of existing expertise and future needs, saw the creation of the new Transportation curatorial area, combining the former Land and Marine designations. Communications was expanded to include Graphic Arts, and Primary Resources combined the former Energy and Mining subject areas as well as Forestry. Curators involved in this restructuring will require time to familiarize themselves with new responsibilities and establish a new focus for research and collection development.

Most projects listed in the Historical Research Plan for 2003–2004 were completed or are on schedule (see Figure 3). A hold on spending during the first several months of the fiscal year delayed the initiation of some contracted projects. Research associated with the Canadian Science and Engineering Hall of Fame was suspended, pending a review of the induction schedule. A paper on the history of the CSTM was completed in draft form, and will be edited for publication in 2004–2005. A research prospectus was also prepared. When published, it will be used to introduce scholars to the research resources available at the CSTM, and to encourage their use.

Collection

A major challenge for any museum is to determine what items it will collect, how the collection will be organized, and how these items will be preserved for future generations. The Corporation, as the only comprehensive national science- and technology-collecting institution in Canada, has a special responsibility for the development of a Canadian national collection. In view of the breadth of the potential subject matter to be covered, critical choices must be made in determining collection content and priorities.

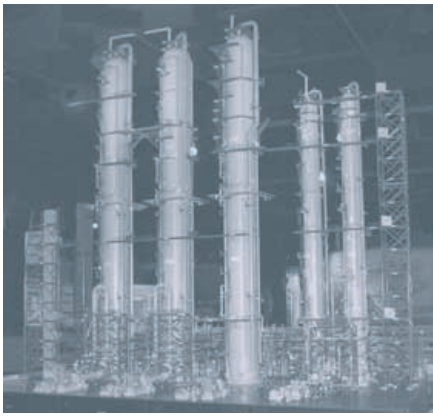
Collection development and management activities are carried out in support of the following objective:

To develop and manage a national collection of objects representative of science and technology in Canada.

Development

The primary purpose of the collection is to help people understand the transformation in Canadian life which has resulted from science and technology. A focussed collection is achieved by identifying and acquiring the objects and supporting documentation which best reflect a historical framework, and by removing or deaccessioning materials that are not consistent with this framework. It is also essential that all documentation be managed in a professional manner, permitting retrieval and adaptation to a variety of media. Adherence to strict environmental standards and professional conservation activities are also required, in order to ensure the long-term preservation of the collection.

Engineering model of Ontario's Bruce Heavy Water Plant, presented to CSTM by the University of Waterloo.



CSTM has acquired an Algonquin birchbark canoe, circa 1935.



Collection development activities utilize historical research to assist the Corporation in making informed decisions on collection content. Following completion of historical assessments, collection assessments are prepared in three sections: the ideal collection, a profile of the existing collection, and the needs of the collection. The latter is obtained by comparing the ideal collection to the collection profile, which identifies artifacts or classes of artifacts to be acquired.

Increasingly, collection assessments are being used to establish a rationale for artifact acquisitions. The introduction of new initiatives such as the CSTM Visioning Study, partnership exhibitions, and the new storage hangar at the Canada Aviation Museum have, however, seriously affected the projected rate of completion for collection assessments. Some of these projects will be carried over for the next few years (see Figure 4).

The collection now consists of well over one million items, including: 36,460 artifacts (averaging 2.2 items per artifact record); 30,136 pieces of catalogued trade literature; 104,350 catalogued photographs; and over 36,461 catalogued engineering drawings. The balance is made up largely of uncatalogued photographs and engineering drawings.

The diverse nature of the Corporation's collection, its profile of Canadian innovation, and its national representation, continued to be the focus of acquisition activity during the past fiscal year.

Artifact acquisitions made by the Canada Science and Technology Museum for the year 2003–2004 reflect important Canadian contributions in science, technology and engineering, and illustrate the scope of the Museum's national preservation mandate, as well as the generosity of institutional partners and individual donors. Further, they document the key position of science and technology as part of Canadian culture.

Highlights include the donation of a 1996 working prototype P3 Fuel Cell Bus Engine by Ballard Power Systems of Burnaby, British Columbia. The engine is an example of Canada's leadership role in the design and development of zero-emission vehicles, and was used in buses field-tested in Vancouver.

The Museum's collection of recreational watercraft was enriched by the addition of what is commonly known as the "ur-canoe" of Canadian history: an Algonquin birchbark canoe. Built around 1935 at Golden Lake, Ontario, it acknowledges the fundamental contribution of First Nations technology to the development of recreational canoe-building in Canada.

The position occupied by Canada during the 1970s and

1980s as the world's foremost supplier of heavy water was the result of the AECL's CANDU program. This year, the University of Waterloo presented the Museum with the engineering model from which Ontario's Bruce Heavy Water Plant was constructed.

The IBM 650 Magnetic Drum Data Processing System Machine launched in 1954 was the first mass-produced computer, and only the second commercial machine manufactured by the company. Particularly significant to the history of computing, a rare example of this machine was donated to the CSTM by McGill University in Montreal, which purchased it in 1958.

Until the early 1970s, electronic technology in the printing industry was the domain of larger and wealthier companies. The introduction of the CompuWriter Junior typesetter, manufactured by the Compugraphic Corporation in 1971, allowed smaller businesses to participate in the use of this new technology for the first time — as was the case for publisher James Gooding, who donated his CompuWriter to the Museum.

The OIDS (Operational Information Display System) developed for air traffic control sprang from a 1972 prototype installed at Mirabel in 1972 by Transport Canada. Its success there led to its further development, manufacture and installation at all major airports across Canada, where it remained in use until it was replaced in May 2004. The system in use at Gander, Newfoundland, during the massive influx of trans-Atlantic traffic following September 11, 2001, has been donated to the CSTM by NavCan and will be the only such system of its type to be preserved.

The cooperative working relationship between the Canada Science and Technology Museum and the Canadian Space Agency was illustrated by the transfer of a test model Radarsat Solar Panel "Wing" produced by Spar Aerospace, Brantford, Ontario. Radarsat is Canada's first remote-sensing satellite, launched in November 1995. It provides vital service, from the monitoring of ice in Canadian waterways and the Arctic, to oil spills, floods, droughts and forest practices. Key to the successful operation of the satellite is its solar array and storage batteries, making the use of panels such as these vital in ground-based troubleshooting.

The endurance of certain consumer technology is evident in the donation of an ammonia-cooled "Monarch" refrigerator manufactured by General Steel Wares Ltd. (Toronto/Montreal) in 1945. The campaign for rural electrification led to the purchase of the machine for a cottage in Perth, Ontario, where it remained operational until its recent transfer to the CSTM.

FIGURE 3 — HISTORICAL RESEARCH PLAN 2003-2004

MAJOR SUBJECT	TOPIC	STATUS
Agriculture	Food for Health (exhibition)	Completed
	Aviation	Replaced by Web essay on BE-2c aircraft
Aviation	British Commonwealth Air Training Plan (Web essay)	Completed
	The Wright Brothers and 100 Years of Flight (exhibition and Web essay)	Completed
Communications	The Balloon Era (Web essay)	Completed
	Printing (update)	Completed
Natural Resources	Domestic Technology (update)	Deferred
Scientific Instrumentation	Medical I	Completed
Transportation	Commercial Vehicles	Completed
Multi-disciplinary	CSTM/CN Gallery	Completed
	CSTM History	Completed
	Hall of Fame	Rescheduled

FIGURE 4 — COLLECTION ASSESSMENT PLAN 2003-2004

MAJOR SUBJECT	TOPIC	STATUS
Agriculture	Animal Powers	Completed
Communications	Photography (replaced by Telephony)	Completed
Natural Resources	Water Power	Completed
Scientific Instrumentation	Space	Completed
Renewable Resources	Forest Management	Rescheduled

FIGURE 5 — COLLECTION SUBJECT AREAS — PERCENTAGE BASED ON THE NUMBER OF ARTIFACTS (Total = 35,467)

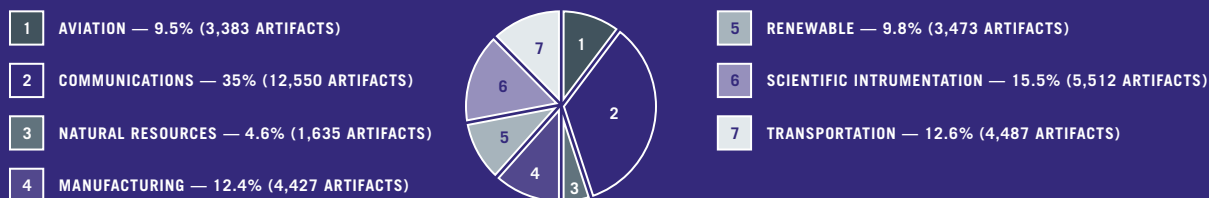


FIGURE 6 — PERCENTAGE OF COLLECTION CATALOGUED TO CSTMC STANDARDS (Target = 94%)

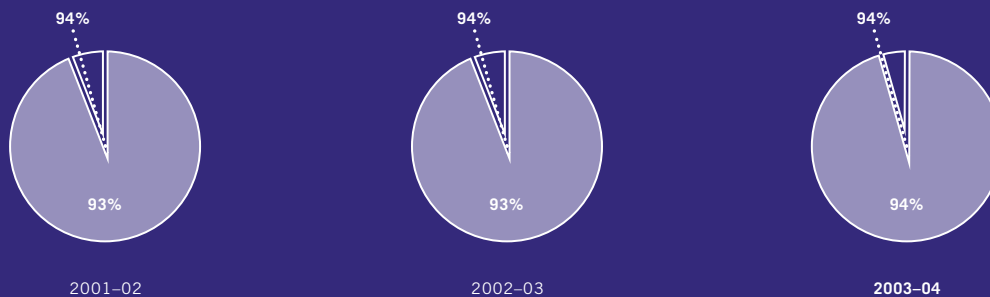
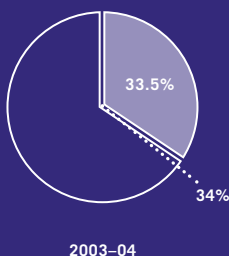


FIGURE 7 — PERCENTAGE OF COLLECTION WITH A CONSERVATION REPORT COMPLETED 2003-2004 (Target = 34%)



An example of a decorated kite from a collection of 70 kites purchased by CAWM.



CAGM staff discovered this now rare, circa 1947 Case VAO orchard tractor, on a farm south of Oliver, BC.



The Canada Aviation Museum's most important acquisition this year was undoubtedly that of Air Canada archival material. The airline recently closed its archives department, and the Museum was honoured to provide a home for a huge amount of material — more than 300 boxes — related to Canada's national carrier. In addition to corporate documentation, the Air Canada collection includes numerous uniforms, as well as photos and videos of great historical importance.

The only aircraft the Museum acquired this year was an Arnet Pereyra Aero Design Buccaneer SX ultralight amphibian built in 1992 by Buzzman Aviation, a small company based in Holland Landing, Ontario. However, another noteworthy acquisition was a collection of over 70 kites: Canada's largest privately-owned collection of kites from around the world. Three of these kites date from the Second World War, while others come from countries as diverse as Bermuda, South Korea, Chile and Afghanistan. This is a valuable addition to the Museum's collection, given the long history of kites and the significant role they played in the early development of flight.

The Canada Agriculture Museum was successful in acquiring a number of artifacts this year that contribute significantly to the national collection. A circa 1928 Model "K" 18-32 J.I. Case cross-motor tractor was acquired from a private collector living in British Columbia. The tractor has provenance indicating its use in the region of Indian Head, Saskatchewan. During the acquisition trip to examine the 1928 tractor, a circa 1947 Case VAO orchard tractor was located in British Columbia's Okanagan Valley. The tractor had spent all of its working life in a mixed-fruit orchard south of the town of Oliver. These tractors are important in terms of their technological attributes and their provenance from outside of Ontario. In both instances, the vendors commented that they were proud that their tractors were becoming part of the national collection. The vendor from whom the orchard tractor was acquired was convinced to sell it largely because it was joining the national collection.

Most dairy farmers enjoy their work, but regret being tied to the farm by milking duties. Recently, robotic milkers have been introduced which allow the cow to enter the unit and be milked when her udder becomes full and uncomfortable. These devices require no human intervention and, according to their manufacturers, may release dairy farmers from the routine of milking. In 1996, the first robotic milker in North America was imported from

Holland and put into service on a dairy farm in Waterloo County. It is categorized as a four-box robot, which means it is capable of milking four cows in succession. When it was replaced on the farm by two new robots, Norwell Dairy Systems — the firm that imported, installed and maintained the robot — contacted the Museum to see whether it was interested in having the robot. Norwell's donation of the robotic milker represents an enormous technological and monetary contribution to the collection.

Management

Collection management encompasses the activities required to manage objects accessioned into the collection. These fall into two categories: record-keeping and conservation.

Record-Keeping

The Corporation maintains records for each item in the collection from three perspectives: location and current museum use, history of the item, and condition. The Corporation maintains rigorous inventory control of all collection items, to ensure that each one can be located at all times. A computerized inventory control system is updated regularly, and tracks whether an item is on loan, on display in an exhibition, or in storage. Documentation for each item includes all original records pertaining to the identity, provenance, and legal title of the item. The item is accurately identified, and information regarding significance, function, operability, history of owners, and use is prepared in a standard format for computerized storage and retrieval.

Cataloguing activity for the year saw 983 artifacts catalogued, 40 documented, one re-catalogued and/or enriched, and the cataloguing of 1,339 pieces of trade literature. A total of 4,626 artifact records were modified, as collection services staff worked diligently to ensure the accuracy of the database prior to its transfer into the new KE Software Collection Management system. Although we missed the Corporation's artifact cataloguing target of 95%, we were very close — despite the emphasis on database cleanup — with 94% (see Figure 6). Work also continued on the implementation of the new KE Emu collection management software.

Conservation

Conservation reports are required for each object, in order to evaluate the physical condition of artifacts, and to define long-term conservation requirements. Conservation reports are intended to be a state-of-the-collection health checklist which will identify any type of threat to an artifact, in time for remedial action to be taken. This reporting provides a benchmark for the condition of an object, both when it was initially evaluated, and following each subsequent use — whether in an exhibition, a program, or for loan purposes. This year, 305 artifacts were examined for the first time.

Conservation efforts during the year supported new exhibitions at all three museums. New exhibitions included **Fading Away: Saving Your Electronic Memories**, a joint venture with the Canadian Conservation Institute; **Fuel Cells... the Future**; and **Nortel Networks Connexions** at the CSTM; **One Hundred Years of Agriculture** opening at the CAgM in Summer 2004; and **Let There Be Flight: The Wright Brothers Centenary** and **Artflight** at the CAVM.

Artifacts were also prepared for over 20 interpretive programs at the three museums. These programs are designed to illustrate various technologies through the use of artifacts from the collection. Some of the artifacts are operated by interpretation or conservation staff. Artifacts operated this past year included demonstrations of a 1908 Buick Roadster, a number of music boxes, and a model of a steam locomotive's automatic stoker.

Conservation staff continued with their replacement of tires on many of the aircraft slated to be moved into the new CAVM storage hangar later this year. Stands are also being made to take the weight off the tires to prolong their life.

The Canada Aviation Museum recently acquired a Borel-Morane monoplane from aviation's pioneer era: the oldest surviving aircraft to have flown in Canada. Conservation of the aircraft commenced this year. The Borel-Morane monoplane was first inspected by conservation staff in June 2002 on location in Exeter, California prior to acquisition. When the dismantled aircraft arrived at the Museum in September 2002, it was immediately placed inside a fumigation bubble within the conservation area. This was considered necessary, as a possible insect infestation was suspected during preliminary inspection of the wings and fuselage. The aircraft was fumigated in a controlled environment with carbon dioxide gas before being introduced into the museum collection. The aircraft was then thoroughly examined, and further treatment was discussed with the curator. Work has now begun and can be followed on the CAVM Web site, where progress is updated monthly.

Just over a year ago, the Project North Star Association of Canada (PNSAC) approached the Canada Aviation Museum indicating a desire to be involved in the conservation of the Museum's Canadair North Star 1 ST. This aircraft has been stored outside since its acquisition in the 1960s. With their assistance, the aircraft was thoroughly examined last summer and a detailed treatment plan developed. Conservation will provide a project manager for the work, which began in Spring 2004 with PNSAC providing the labour and other resources required for the project. Work will continue on the aircraft

exterior until it is moved into the new storage hangar later this year. This project will require a number of years to complete.

The Baddeck, a prototype hydrofoil, was acquired in 1990 when it was shipped to Ottawa from Dartmouth, Nova Scotia. It has been sitting outdoors on its original cradle behind the Museum ever since. Last year, a new cradle was fabricated by conservation staff, ably assisted by several volunteers. Late last summer, the Baddeck was hoisted onto its new cradle and moved into covered storage in one of the CSTMC's warehouses.

The Canada Science and Technology Museum operated a steam-powered Shay locomotive, manufactured in 1923 by the Lima Locomotive Works, on its grounds between 1996 and 2001. Late last year, after lengthy discussions with the Technical Standards and Safety Authority (TSSA), conservation staff began the process of stripping the Shay boiler (removal of outer jacket, insulation and ancillary appliances) for complete non-destructive testing and analysis to meet new regulations governing the certification and registration of antique boilers. The Shay boiler passed all tests and evaluations, and was reassembled in the spring and summer of 2003. Unfortunately, the Shay was not ready for the beginning of the summer operating season. The Bytown Railway Society once again provided their small General Electric No. 10 diesel locomotive, a 50-tonne industrial switcher. Though the Shay was available in August, it was decided not to use up one year of its five-year operating certificate for the final few weeks of the season. It will be ready, however, for this summer's program.

Sharing Knowledge

The primary reason for interpreting Canada's scientific and technological heritage is to provide Canadians with meaningful information about themselves and Canada. Just as the Transformation of Canada theme directs research and collection activities, it likewise guides the Corporation in its knowledge-dissemination activities. These typically depict the historical development of science and technology, provide information on objects in the collection, and review relationships between science, technology and Canadian society.

The Corporation seeks to engage Canadians in discovering, considering, and questioning past and present developments in science and technology, and their impact on society and individuals. The Corporation fosters a sense of identity and belonging for all Canadians, as well as pride in Canada's scientific and technological history and achievements. It also encourages active and informed participation by Canadians in the future development of our technological society. The Corporation disseminates knowledge to its audiences in three primary ways: through its museums, its Web sites, and its publications.

CSTM participated in Ottawa's Home Show in March with an exhibition in domestic technology.



The Shay locomotive is now re-certified and can once again be operated for the 2004 summer season.



Public Facilities

The Corporation manages three museums for the visiting public. The ultimate purpose of a museum is to provide its visitors with learning experiences, and the Corporation builds on the unique characteristics of its three museums to shape this experience. Museums are places of informal, self-directed learning, imparting knowledge and encouraging curiosity, and they contribute to learning at every stage of life.

Activities at each of the three museums are carried out in support of the following objective:

To provide an enriching museum experience to a broad public audience.

Museums traditionally offer exhibitions, complemented by interpretive programming, to visiting audiences. In selecting exhibition and program ideas, preference is given to those that afford the best opportunity to utilize curatorial expertise and display artifacts from the collection, while also appealing to existing and/or potential visitors. Exhibition topics are selected, based on the range of experiences they afford, and must be thought-provoking, invite discovery, and allow for the acquisition of the widest possible range of knowledge.

A broad range of interpretive programming is offered to complement exhibitions and to broaden and enhance the visitor experience. These include school programs, demonstrations, workshops, tours, theatrical presentations and special events. All are aimed at increasing the public's understanding of its scientific and technological heritage, while also illustrating the theories and principles of science and technology.

PERFORMANCE INDICATOR

Visitor satisfaction levels at all three museums exceeded their respective targets by 10 percent or more.

Canada Agriculture Museum

The Canada Agriculture Museum continues to enjoy considerable success as the only museum in Canada that is devoted to interpreting agriculture from a national perspective. Its unique collection of heritage and purebred livestock, and its collection of agricultural technology, form the basis for a range of interactive exhibitions and engaging school and public programs. The Canada Agriculture Museum undertakes historical and material culture research which will aid it in the development of various parts of the collection. This year's focus was the history of maple sap processing in Canada, and the identification of those key artifacts required to interpret that area of agricultural technology.

Outreach

The Museum is placing greater emphasis on reaching out to its various audiences across Canada. Museum personnel are closely involved in Canadian and international agricultural organizations. The Museum's Director General is on the Presidium of the International Association of Agriculture Museums (AIMA) and also represents the Museum on the Central Experimental Farm Advisory Committee and an Agriculture and Agri-Food Canada (AAFC) committee which is currently working on a management plan for the Central Experimental Farm National Historic Site. This past year, a staff member from the Canada Agriculture Museum led several workshops on the interpretation of agricultural equipment at the Annual Conference of the Association for Living History, Farm and Agriculture Museums (ALHFAM) in Princeton, New Jersey. The Canada Agriculture Museum has also been invited to collaborate with other North American agricultural museums and scholars of agricultural history in the presentation of sessions regarding the North American perspective on the collection and interpretation of twentieth-century collections at the International Association of Agriculture Museums (AIMA) conference to be held in September 2004 in the Czech Republic.

At the Royal Winter Fair in Toronto this year, the Museum once again took part in the AAFC display. Part of the Museum's dairy collection was on display, and butter-making was demonstrated to hundreds of visitors. Information on the history of butter was also handed out.

An important tool for outreach is the World Wide Web, and the Museum is working to make its Web site more appealing to a wider cross-section of visitors.

Exhibitions

Since early 2003, work has proceeded on a travelling exhibition with the working title **Food for Health**. The exhibition's aim is to educate Canadians about the sources of their food and about their personal responsibility to choose their food wisely and to handle it safely. At this stage in the development of this sponsored exhibition, some of the content research is underway and front-end evaluation is being conducted. The development of the exhibition's interpretive plan is scheduled to begin in June. As of mid-March 2004, a large portion of the funds needed to see the exhibition through to completion had been secured from sponsors.

The Museum's exhibition **Bread: The Inside Story** closed this past winter and was replaced by the travelling exhibition **One Hundred Years of Science in Agriculture**, which opened on March 1, 2004. This travelling exhibition, which will be on display until October 31, 2004, is borrowed from the Musée François-Pilote in Quebec. Now in its third year, the Museum's exhibition **Tractors** continues to be a popular stop for visitors of all ages. Due to the Corporation's financial situation, the development of a travelling exhibition on bee-keeping technology is currently on hold and will resume in the next fiscal year when sponsors have been found to fund the design and fabrication of the exhibition. This exhibition will highlight the development of bee-keeping technology in Canada, and the essential role that bees play in agriculture. The majority of artifacts for this exhibition will come from the Perrine collection which was acquired several years ago.

Interpretive and School Programs

During the past year, the Museum built upon its successful established programs and presented several original programs which targeted new audiences and involved new partners. Major special events, which have become well-known seasonal outings for visitors, such as Easter on the Farm, the Sheep Shearing Festival and the Ice Cream Festival, were well-attended. Regular daily interpretation involved visitors in real agricultural activities and food production, as did the Day Camp Program, which operated at almost maximum capacity for four camps over nine weeks — enabling 724 children ages 4 to 14 to participate in the workings of a farm. The Day Camp Program continued to be a source of fun for the children who attended. As a testament to the day camps' popularity, many children who attended the very first Fun at the Farm camp nine years ago graduated this past summer from the Junior Farmer camp. The Museum is confident that the time children spend in the Museum's camps will create memories that will last a lifetime. It should be noted that, last summer, the Canada Agriculture Museum came under scrutiny because two Ottawa children became ill with *e. coli* poisoning. However, although the bacterium can be spread by livestock, no direct link was ever established between the infections and the institution. In other words, the microbe could just as easily have originated somewhere else. Immediately upon hearing of the presence of *e. coli* in Ottawa, the Museum was quick to take action and sought the advice of municipal health authorities and of its veterinarian. Signs were posted in prominent locations encouraging visitors to wash their hands, especially after touching any animals. The Museum also installed an additional hand-washing station in the calf barn to make it more convenient for visitors to practice good hygiene.

In its school programming, the Museum continues to sharpen its focus on teachers' specific curriculum needs. This year, programs targeted kindergarten and Grade One groups with new programs such as A Day in the Life of a Pioneer Child, Butter-Making and Pumpkins. Many high schools made visits to the Canada Agriculture Museum part of their curricula, and programs such as Genetics and Selective Breeding, and Ecosystems and Agriculture, were among the more popular Museum offerings.

Canada Agriculture Museum Performance Indicators

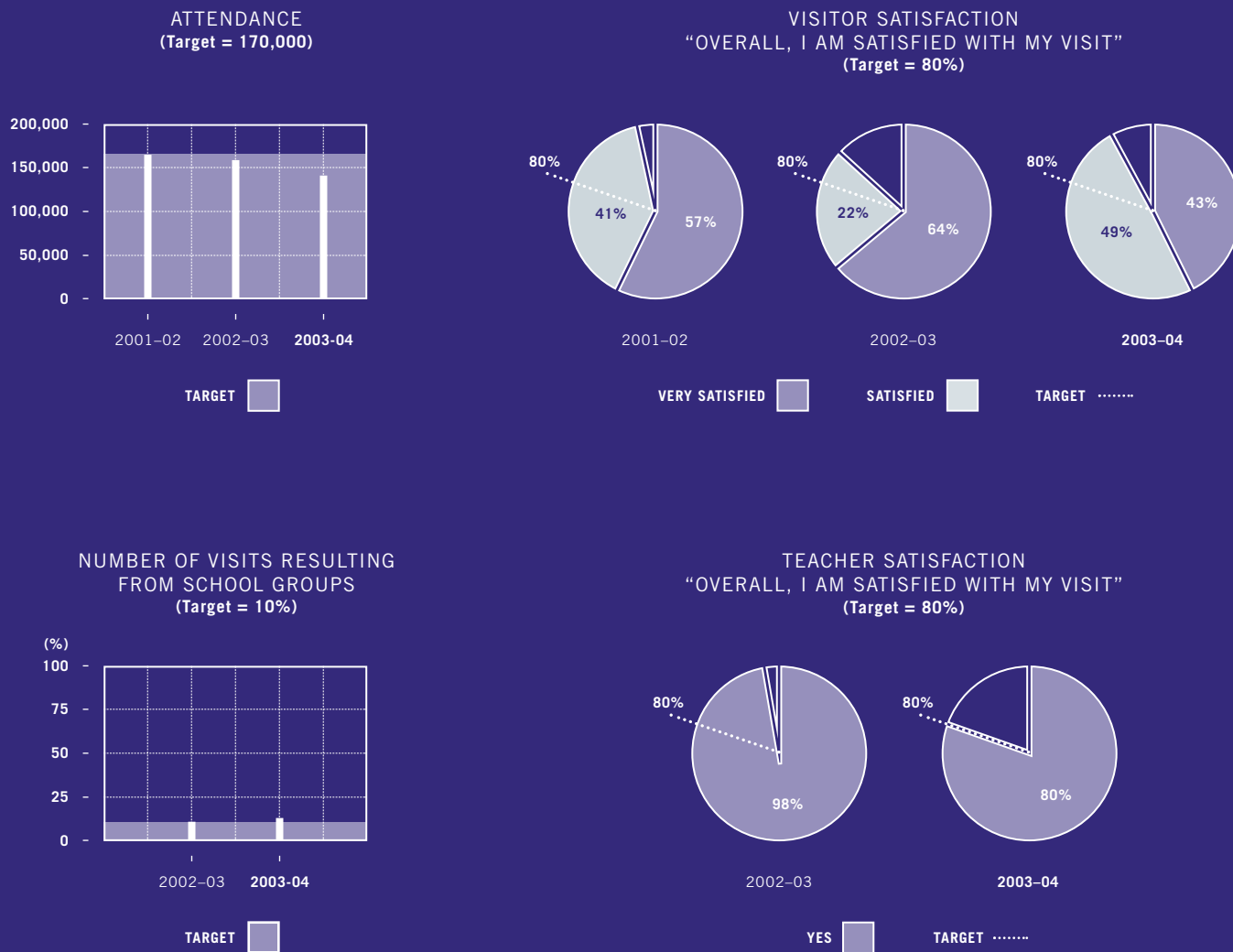


FIGURE 8 — CANADA AGRICULTURE MUSEUM EXHIBITION PLAN 2003-2004

EXHIBITION	SCHEDULE	BUDGET
Tractors (Evaluation)	Note #1	Note #1
Bee-Keeping Technology (Production)	Note #2	Note #2
New exhibition (Concept)	Note #1	Note #1

Note #1: This project was not completed, due to budget cutbacks and a lack of available funds.

Note #2: This project was not completed, due to budget cutbacks and a lack of available funds. It was replaced by **Food for Health** which is funded through sponsorships.

The CAgM day camp program operated at maximum capacity in 2003.



School children participating in "A Pioneer Winter," part of CAgM school programming.



Farm Operations

Animal comfort improvements undertaken recently in the Dairy Barn have resulted in fewer leg injuries to the cows and an increase in milk production. Another change to increase animal comfort was a doubling of the size of our bull's pen. Improvements to farm operations and careful selection of farm animal breeds have helped Visitor Services and Programming meet their mandates of connecting Canadians and the world to the historical and current importance of agricultural science and technology to everyday life. This year, the Museum also borrowed a Charolais beef cow and its calf to round out the breed variety of its animal collection.

Museum Operations

Due to a lack of sufficient heated indoor public space, the Canada Agriculture Museum continues to offer its high-quality interpretive and school programs for only eight months (March to October) each year. In addition, the Museum's unheated exhibitions are also closed during the same four winter months. These restrictions have a severe impact on attendance, and limit the Museum's ability to reach more Canadians. It is the Museum's intention to work towards acquiring appropriate facilities which will permit year-round operations. Spearheaded by its Facilities Manager, the Museum has embarked on a study, including short- and long-term needs analyses, of possible use of its administration facility, Building 94. This building can potentially house not only administration offices, but also more classroom and visitor services spaces. Stemming from its need to focus more on outreach, the Museum last year reorganized its Public Programming Division to create a position focussed on how the Museum's messages can be disseminated to as many Canadians as possible, no matter where they live.

PERFORMANCE INDICATOR

The Canada Agriculture Museum's Day Camp program operated at maximum capacity throughout the 2003 summer season.

Canada Aviation Museum

The Canada Aviation Museum is recognized as having the most extensive aviation collection in Canada, and one which ranks among the best in the world. The Museum collects artifacts which illustrate the development of the flying machine in both peacetime and war, from the pioneer period to the present day. Although the Museum highlights Canadian achievements in aeronautical science and technology, it also includes aircraft and other artifacts from many other nations.

Soaring Towards the Future

The Museum has targeted 2004 for completion of the new collection storage hangar, and the library, archives and administrative wing. With a vision in place, efforts to secure support for the remaining phases are underway, thus ensuring an enhanced visitor experience and accommodation of large-scale restoration efforts and new acquisitions. Ultimately, the Museum's goal is to preserve Canada's aviation legacy for future generations and to acknowledge and celebrate remarkable aeronautical achievements both here and around the world. Future development phases aim at completion in 2009, in time for the centennial of the first powered flight in Canada. These include an underground link between the existing Museum building and the new collection storage wing, an auditorium, a greatly expanded conservation facility, and a new Museum entrance.

Partnership and Outreach

The Museum has been fortunate in exploring many partnership opportunities over the past year, particularly by virtue of the wonderful venue that we can offer to host organizations. During the past year, the Museum has collaborated on three successful Department of National Defence events, including a Canadian Forces Day Air Demonstration Team extravaganza, and a farewell event for retiring Canadian astronaut, Colonel Chris Hadfield. In addition, the Museum has become the de facto home of the Chief of Air Staff Change of Command ceremonies, as was the case this year with Lieutenant-General Ken Pennie taking over from Lieutenant-General Lloyd Campbell.

The Museum continues to reach out to Canadians in important ways. The Museum's partnership with the Canadian Warplane Heritage Museum again involved a very popular visit of their vintage flying aircraft during Canada Day celebrations. Our Canada Day events also include a variety of other airborne guests, including the Gatineau Gliding Club, the Snowbirds and the Sky Hawks Parachute Club.

With the completion of Ottawa's new airport terminal, the Museum worked with the Ottawa International Airport Authority to revive our popular airport tour program at the Ottawa Macdonald-Cartier International Airport. In the interim, children attending our advanced day camp Aerotech 3 were able to explore Transport Canada facilities, including a tour of the flight simulator.

The Museum's expert staff remain one of Canada's richest aviation heritage resources, answering over 2,300 inquiries from across Canada each year, and making presentations at five conferences in 2003–2004.

Exhibitions

The Museum unveiled its latest contribution to centennial celebrations of powered controlled flight with an exhibition on the Wright Brothers and other aviation pioneers. **Let There Be Flight** opened in conjunction with **Artflight 2003**, which had as its theme "Flight Firsts". **Artflight** is the Museum's successful biannual juried aviation art competition.

Let There Be Flight places the Wright Brothers' achievement in a broader historical context. The exhibition uses new technologies for the museum — such as a wireless network on the museum floor — to enable visitors to learn more about the development of powered flight. The ability to test and gain experience with new technologies is an important goal, as the Museum works towards implementing a long-term plan to renew and redefine the exhibition areas of the current building.

In an example of collaboration with outside partners, the Museum displayed a specially commissioned collection of paintings by well-known aviation artists. The **Canadian Airpower for Peace and Freedom Collection** was commissioned by 441 Tactical Fighter Squadron from 4 Wing Cold Lake to commemorate the Canadian mission in support of Operation Allied Force in Kosovo in 1999. The Museum designed and produced bilingual text panels for the display, enabling 441 Squadron to exhibit this fine collection across the country.

The Museum's long-term exhibitions planning process began in earnest with a number of participatory workshops to help staff define the Museum's interpretive planning framework. This document will help guide the Museum through a thorough examination of its interpretive directions, and will become an essential tool in the development of the Museum's permanent exhibitions as space freed up by the opening of the new hangar becomes available. While the larger long-term planning exercise is continuing, discussions about various possibilities for marking the 2009 centenary of powered flight in Canada are well underway.

Education and Community Programs

As the CAVM continues to provide visitors with a quality museum experience, it strives to explore fresh niche markets and open up the Museum to new visitors from all walks of life. Relationships continued with aviation groups such as the Rockcliffe Flying Club and the Experimental Aircraft Association — in whose international youth program, Young Eagles, we participated — and remained strongly involved with our local Air Cadet squadron.

Education Services worked with the Facility Rentals program to provide stimulating aviation activities for rental clients under the name "Onwards and Upwards". In another creative initiative, Community Programs increased summer attendance with the extremely popular Cool Summer Workshops for Groups, selling the Museum as a great field trip destination for regional day camps. Community Programs also began consulting with members of local First Peoples communities to explore possibilities for more diverse programming and events, including one conducted by a member of the local Mohawk community.

School programs maintained a consistently high teacher satisfaction rating of 95%. Twelve different school programs are offered at the Museum, addressing the needs of various regional school curricula. Programs such as Properties of Air, Characteristics of Flight, and a dynamic historical presentation of Canadian aviation highlights are particularly popular among our student visitors.

Canada's Governor General meets with elementary students participating in celebrations marking the 100 years of powered flight at CAVM on December 17.



General Henault, Chief of Defence Staff, participates in the Art Flight competition and exhibit award ceremony.



Chris Hadfield, former CF-18 Pilot and Canadian astronaut, during his official retirement ceremony from the Canadian Forces



Communications and Marketing

Important public relations partnerships resulted in a number of events that have reached beyond the Museum's normal program offerings, delivering stories of achievement to Canadians across the country. Collaboration with the Department of National Defence produced a spectacular Canadian Forces Day celebration, with demonstrations from the ever-popular Snowbirds, the Sky Hawks parachute demonstration team and others, including the Navy's talented Stadacona band, flown in from Halifax for this event. During the summer, the Museum was also pleased to host an International Air Rally. Previously based only in Quebec, this year the Rally launched its event for the first time in Ontario from the Museum and the Rockcliffe Airport. The Museum was also gratified to play a role in a particularly touching event hosted by local entrepreneur and aviation enthusiast, Michael Potter, who unveiled his newly painted 1945 Supermarine Spitfire and honoured Second World War Veterans. The flypasts by this heralded aircraft attracted veterans and their families from a wide area, including the United States, and delighted all in attendance.

In addition to a successful exhibition opening for the Museum's centenary of flight exhibitions, **Let There Be Flight** and **Artflight 2003**, the Museum participated in the Canadian celebration of the centennial, *Altitude is Everything*, and offered itself as the venue for the December 17 events marking 100 years of powered flight. These events included a national broadcast from the Museum, attended by children and adults alike, and a visit by Her Excellency Governor General Adrienne Clarkson and His Excellency John Ralston Saul. The celebration continued into the evening with a gala celebration that hosted many of Canada's aerospace luminaries, both past and present.

In addition to these events, significant communications activities have focussed on the continued support of museum programs, and on maintaining attendance levels in response to reduced operating hours, as well as investigations into the viability of new partnerships and revenue streams, and the incorporation of the Museum's Special Events and Rentals function and staff into the Communications and Marketing Department. Work continued in support of the development of the Museum's new Web site, including its promotion, and the development of a media centre. A media centre would not only ensure continued coverage of Canada's premiere aeronautical collection, but also the efficient dissemination of stories of Canadian achievement, and pride in Canada's aviation heritage.

Special events produced by the Museum itself included the annual Silver Dart event, a fly-in breakfast and a special Things That Fly in the Night Halloween event. This year's Membership Appreciation Day highlighted the talents of an Indonesian Kite Master, who was supported by the Indonesian Embassy in Ottawa. The Museum's annual Canada Day celebrations, which included activities and demonstrations from the Canadian Forces Military Communicators and Engineers, as well as Canadian Forces Firefighting teams, were enjoyed by visitors of all ages.

As a rental venue, the Museum continued to expand this successful revenue-generating initiative as one of the most interesting "off-site" locales available in the Capital. New and emerging markets are being pursued; in addition, the Museum has become the obvious choice of the Canadian aerospace industry, which hosted some very high-level events at the Museum over the past year.

Canada Aviation Museum Performance Indicators

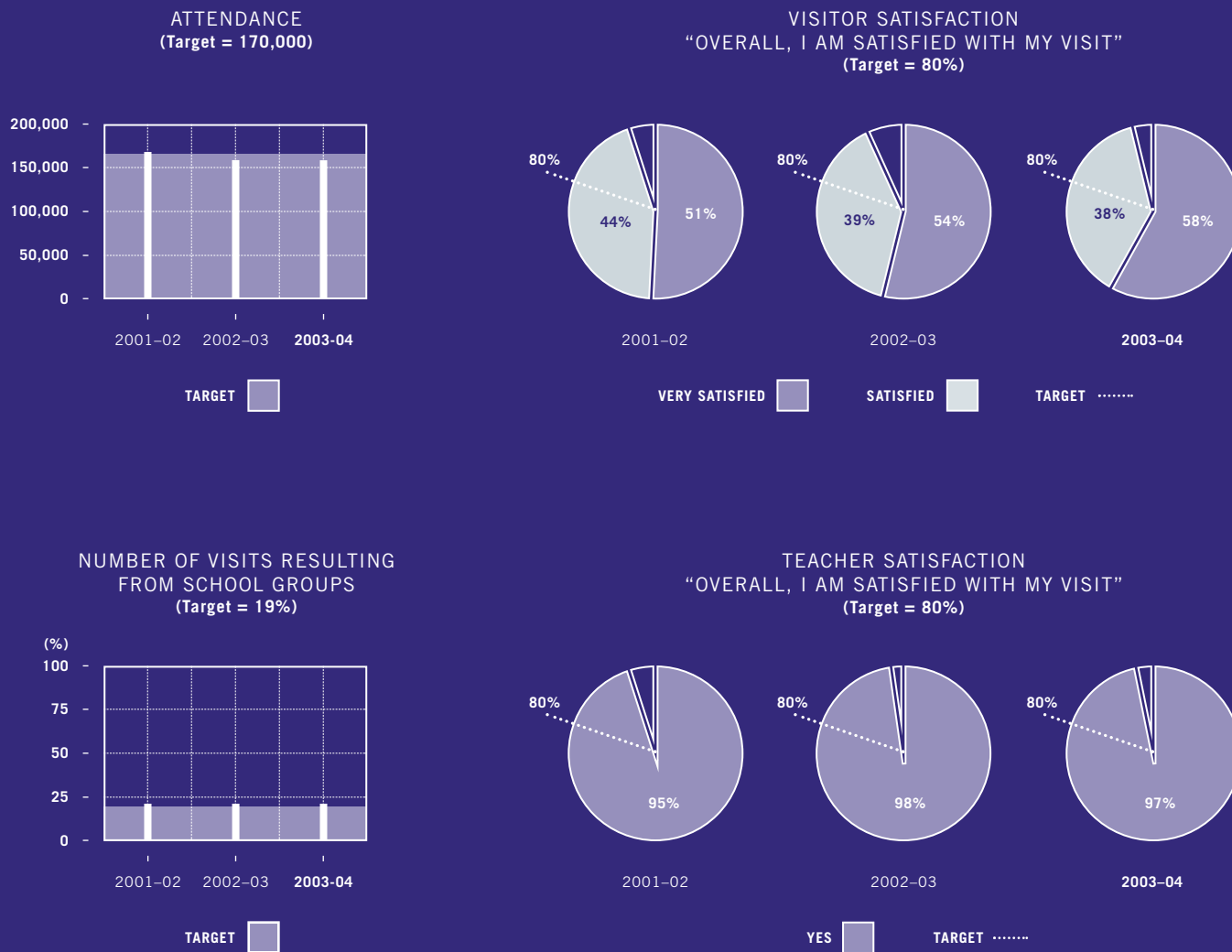


FIGURE 9 — CANADA AVIATION MUSEUM EXHIBITION PLAN 2003-2004

EXHIBITION	SCHEDULE	BUDGET
Let There be Flight — the Wright Brothers Centenary	Yes	Yes*
Artflight 2003	Yes	Yes**

* Budget included funding carried over from a previous year.
 ** Budget revised from original \$25,000 to \$19,500

Canada Science and Technology Museum

As Canada's only national museum of science and technology, the Museum has the unique role of not only preserving Canada's science and technology heritage and sharing it with all Canadians, but also addressing current developments and topical issues. This is accomplished through a variety of means including artifact acquisition, exhibitions, demonstrations, publications, educational programs and artifact loans. Each of these initiatives strives to connect with differing audience needs in an effort to reach as many Canadians as possible. As this country continues to grow and diversify, so must the Museum's outreach efforts expand and remain responsive to changing needs.

Partnership/Outreach

In November 2003, the Museum hosted the Royal Society of Canada's annual symposium on the theme "Energy, Environment and Society: Making Choices". Experts from the university research community, industry and government included Allan Rock (Minister of Industry), Don Johnson (Secretary General, Organization for Economic Cooperation and Development), and Arthur Carty (President, National Research Council). The travelling exhibition **Climate Change** which was developed and produced by Science North, Science World and Natural Resources Canada opened at the CSTM to coincide with the symposium. Visitors to the Museum were introduced to the science behind climate change, while discovering the impact that such changes have on ecosystems, populations and industry.

Coinciding with the conference was the exhibition of two new artifacts donated to the Museum by Ballard Power Systems of Vancouver: a P3 Fuel Cell bus engine and a Nexa™ Stationary Power Module. Included in the display was a prototype Ford P2000 Fuel Cell Vehicle lent to the Museum by Natural Resources Canada. The Museum's relationship with NRCan continues in the development of a computer game on Forest Fire Management.

Partnerships with the Canadian Museum of Civilization (Gatineau), Ontario Science Centre (Toronto), Science World (Vancouver), Centre des sciences de Montréal (Montreal), and the Department of Foreign Affairs and International Trade remain active. These organizations are working together to develop an interactive component for the Canada Pavilion at Expo 2005 in Aichi, Japan. Not only will the partners have a presence in Japan, but there will be a live link from the Canada Pavilion to each of the participating institutions.

In collaboration with the Canadian Museum of Nature, the National Research Council, the University of Ottawa and Ashbury College, the Museum participated on a steering committee which would see Ottawa host the Canada Wide Science Fair in 2008. A proposal will be submitted to the Youth Science Foundation at the 2004 Canada Wide Science Fair in St. John's, Newfoundland.

To help it achieve one of its outreach goals, the Canada Science and Technology Museum has developed a partnership with the Vancouver-based institutions Science World, the Vancouver Aquarium and the HR MacMillan Space Science Centre to offer teacher enrichment workshops in Ontario and Quebec in the form of a program called Engaging Science.

In partnership with the Canadian Light Source, the Museum prepared an exhibition prospectus which will be used to secure corporate funding to develop this project. The exhibition will focus on the cutting-edge research facility at the Canadian Light

Source in Saskatoon, which welcomes not only Canadian researchers, but also international scientists.

The Museum hosted several national and international guests on professional development missions. Science education, exhibition development, and heritage outreach professionals from the United States and Australia visited the Museum, and CSTM staff shared their expertise at a variety of conferences and workshops from Halifax to Sudbury to Vancouver.

The CSTM consulted during the development of a modular travelling exhibition on Science in Canada with the Canadian Association of Science Centres.

Again this year, the Atlantic Canada Opportunities Agency (ACOA) Best Practices Mission visited the CSTM to learn more about the interactive programs developed by the Museum.

The Internet has become a premiere vehicle not only to transmit information, but also for information-seekers. The CSTM will spend the upcoming fiscal year mapping out a major redesign strategy for its Web site, with implementation taking place in fiscal 2005–2006.

Canadian Science and Engineering Hall of Fame

The Hall of Fame induction ceremony was not held in the Fall of 2003, but has been rescheduled for May 2004. The Museum commemorated the passing of Hall of Fame member, Dr. Bertram Brockhouse by displaying his Triple Axis Spectrometer, which is part of the Museum's collection. The induction ceremony in May 2004 will make a stronger connection between the new inductees and the impact of their innovations on people globally.

Exhibitions, Interpretive and School Programs

The **Nortel Networks Connexions** exhibition opened to the public on July 1, 2003. This marked the first time in the Museum's history in which a corporate partner had been integrated into the exhibition development process. This gave the Museum unprecedented access to cutting-edge research in the Nortel Networks labs. The exhibition enjoyed tremendous media interest and a very positive response from visitors.

A unique exhibition partnership was developed with the Centre des sciences de Montréal and the Musée de la civilisation du Québec in Quebec City. Each of the three institutions will develop an exhibition under this agreement, for presentation at the partner institutions. The Centre des sciences will open an exhibition focussing on forensic science in October 2004, which will travel to Quebec City in the spring of 2005, and to Ottawa in the fall of 2006. The Musée de la civilisation du Québec will be developing an exhibition called **Lumières**, opening in Quebec city in the fall of 2004, and travelling to the CSTM for an opening in November 2005. In both cases, the Museum has been given an opportunity to provide input into the exhibition process, and will lend artifacts from the collection in support of these two exhibitions. As its contribution to this three-way partnership, the Museum's exhibition will open in Ottawa in 2007.

Eight new temporary exhibitions were incorporated into the exhibition plan in 2003–2004. Some exhibitions responded to current affairs such as NASA's Mars exploration rovers; others were used to highlight special events and enhance the visitor experience. These exhibitions also allowed the Museum to take

Canada Science and Technology Museum Performance Indicators

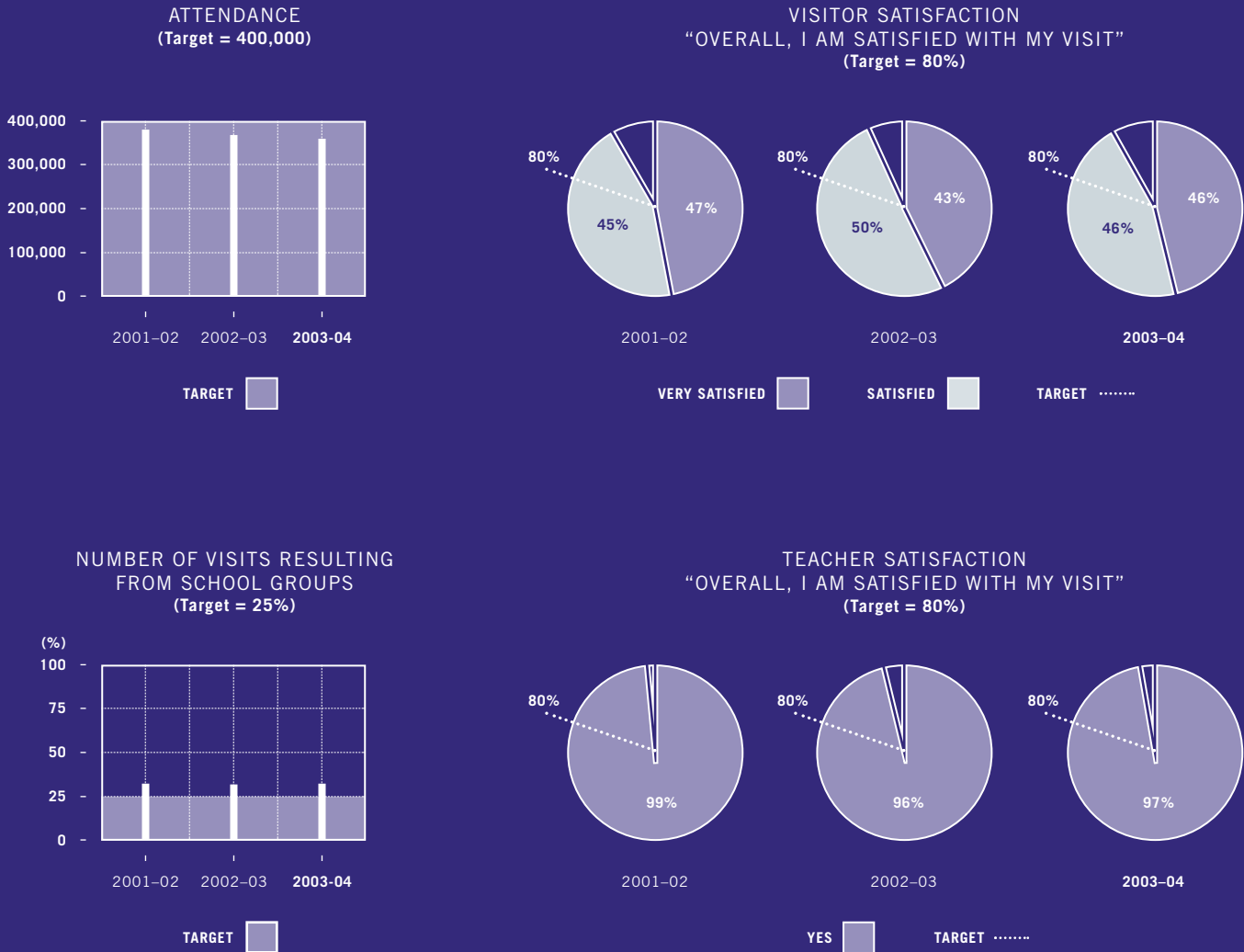


FIGURE 10 — CANADA SCIENCE AND TECHNOLOGY MUSEUM EXHIBITION PLAN 2003-2004

EXHIBITION	SCHEDULE	BUDGET
Nortel Networks Connexions	Yes	Yes (Note #1)
Royal Society of Canada	Yes	Yes (Note #2)
Forest Fire Management in Canada	Note #3	Note #3
Connexions/Broadcasting (update)	Note #1	Note #1

Note #1: **Nortel Networks Connexions** opened its new section on digital networks in June 2003. The budget was adjusted to accommodate unexpected increases in material costs and additional staffing requirements to meet the opening schedule. A section along the outer wall of the exhibition was also developed and implemented in the fall of 2003, and remedial activities were scheduled to take place in the winter of 2004, requiring the deferral of the update to the broadcasting section of the exhibition to Spring 2005.

Note #2: Natural Resources Canada assisted the Museum in recovering the costs associated with developing exhibitry related to the theme of the symposium.

Note #3: The opening date for **Forest Fire Management** is deferred indefinitely, to allow the Corporation to pursue partnering and sponsorship opportunities.

Greg Mumford, Chief Technology Officer, Nortel Networks at the opening of the **Nortel Networks Connexions** exhibition.



Mike Marta, CSTMC Executive Director, Development, Greg Mumford, Chief Technology Officer, Nortel Networks and Christopher J. Terry, CSTMC President and CEO at the opening of the **Nortel Networks Connexions** exhibition.



A glimpse of the exciting and unique way **Nortel Networks Connexions** introduces the visitor to the world of digital networks.



advantage of partnership agreements within the Heritage Portfolio as well as with the wider heritage and business community.

In collaboration with the Canadian Conservation Institute (CCI) the Museum developed **Fading Away**, an exhibition which was first displayed at the Library and Archives of Canada to complement the three-day symposium, "Preservation Quest: How to preserve your home movies, CDs, videos and more". Drawing on the Museum's collections and curatorial resources, the exhibition's artifacts and displays presented an overview of the history of preserving electronic records. This exhibition is currently being evaluated for its potential as a travelling exhibition.

The Museum participated in a number of local outreach opportunities, including Canada Day festivities in Major's Hill Park, where some 5,000 people visited the Museum's display on bubbleology; the Governor General's Garden Party; and a display on domestic technology for the Ottawa Home and Garden Show.

Tours of the Museum's collection storage facilities, which were introduced to visitors during the summer of 2002, continued in the summer of 2003 and were offered three days a week, attracting more than 800 visitors. The tours were complemented by a new visitor program called Collection Cruises. Twice a week, the Visitor Services team drove a 1908 Buick Model 10, Gentleman's Roadster and a 1926 Ford Model T on the Museum grounds. Visitors were able to see cars not normally on display and learn how the technology of these automobiles contrasts with modern vehicles. More than 1,700 visitors participated in the Collections Cruises. Both of these programs respond to the objective of making the collection more accessible to visitors.

Visitors to the Museum were also able to participate in live, interactive demonstrations offered at the Demonstration Stage. This past year, visitors were able to make their hair stand on end using a Van de Graaff generator, illustrating the principles of static electricity; sit on a chair of nails to learn basic laws of physics; and see what would happen to everyday objects in the extreme cold of Space, when the demonstrator used liquid nitrogen to freeze lettuce. More than 138,000 visitors were dazzled by these exciting demonstrations.

New programming partnerships were established, and existing ones were refined. These partnerships are with local community groups such as the Bytown Railway Society, the Capital Area MOPARs, the Ottawa-Carleton Fire Department, the Ottawa Valley Mobile Radio Club, the Ottawa Robotics Enthusiasts, the Canada First Robotic Games, and the City of Ottawa.

March Break 2004 programming focussed on the technology of video games. These activities were very popular with visitors, and included a local video game developer who demonstrated how to produce a video game, video game tournaments using arcade games from the 1980s, and a child's activity area.

CSTM School Programs offer curriculum-based programming designed to complement classroom teachings. The museum setting provides unique opportunities to engage with exhibitions and experts not available in typical school environments. The Museum's School Programs have thus continued to be an important part of the academic year for more than 61,000 students and teachers.

To coincide with the 2003 Aventis Biotech Challenge, the Museum held its popular Biotech Lecture Series in May 2003. More than 1,800 young people attended lectures by renowned Canadian biotech researchers.

The Summer Camp Program, which is designed to reach children 6 to 12 years old, was expanded to include a fifth camp, Tech-Works!. Not only did this new camp allow the Summer Camp Program to increase its attendance, but it also united the various engineering disciplines in one camp, giving its participants an overview of this exciting field of study. The Museum also offered an off-site camp, resulting in a total Summer Camp attendance of more than 1,000 campers.

Web Sites

Electronic information technologies in general, and the World Wide Web in particular, have evolved as major dissemination tools for museums. These technologies provide unprecedented opportunities for museums to reach greater audiences than could ever be welcomed to their physical sites. The Web also provides a new way for museums to facilitate public access to their collections and research.

The Corporation's use of the Web is carried out in support of the following objective:

To make the Corporation's knowledge base available to a national and international audience.

In pursuing this objective, the Corporation has focussed on three principal goals:

- > provide the public with direct access to the collection and research results;
- > offer new products which take advantage of the unique properties of the Internet as communications medium; and
- > promote the Corporation's museums and services to a wider and more clearly defined audience.

This past year, the Canada Aviation Museum launched a completely redesigned Web site. The site's new look and feel reflect the mission of the Museum: to create a greater appreciation for Canada's aviation heritage, to demonstrate the vital role of aviation in the lives of Canadians, and to illustrate the significance of aviation in the growth and prosperity of this country. The new site offers more content and enhanced accessibility. Through the use of archival photographs from the Museum's collection, the human side of aviation begins to unfold. Using some of the most recent Web standards and technologies, the site provides easy access to information, so that all users, no matter their level of technological expertise or ability, will be able to access a wealth of historical and technical information about Canadian and worldwide aviation.

This new site showcases significant aspects of the aviation archival collection. The Aviation Image Bank now has 15,000 images available online, and Web users are able to order images through the site. New essays are added regularly, including "Anti-submarine Warfare Pioneer to Bush Pioneer: The HS-2L in Canada" and "The Balloon Era". New "Museum Aircraft Histories" continue to be contributed by volunteers. Conservation of the oldest existing aircraft to have flown in Canada, the Borel-Morane, is being documented in an online diary. All of these essays provide rich context on the Canada Aviation Museum collection.

New collection and research features have also been published on the Canada Science and Technology Museum Web site, including the "Innovation Canada" *Curator's Choice*, which builds on the popular Innovation Canada museum exhibition; the "Industrial Transfers and the Art of Decalcomania" *Collection Profile*; and further installments of the "Arctic Diary",

profiling Canadian researchers conducting experiments on current Arctic conditions. The site's CN Images of Canada Gallery now offers more than 5,000 historical images. There are also several facilities in which visitors can "ask us about our artifact collection", pose "tell me about" queries, and "ask our experts a question", providing online visitors with direct access to the Museum's educational and curatorial expertise, and help in answering historical, scientific or technological inquiries.

The Canada Agriculture Museum is in the final stages of mounting a "Dairying Technology" *Collection Profile* on its Web site. This will allow all Canadians to have access to the Museum's knowledge and collection in this area of technology.

The Corporation continues to take advantage of the unique properties of the Internet as a communications medium in many other ways. The newly launched Canada Aviation Museum Web site now includes a special "explore" section, which makes use of interactive Web technologies to give visitors a glimpse of the technology and history inherent in the collection. This section features the site's first online exhibition, **Let There Be Flight**, which is patterned after an exhibition on the museum floor. The Museum looks forward to expanding this section over the next several years. The site also features electronic postcards that can be sent from within the site. These postcards incorporate a variety of images, including the Museum's rich photograph collection and reproductions of artwork from the Museum. The postcards offer a personal way of inviting recipients to further explore the Canada Aviation Museum and its collections.

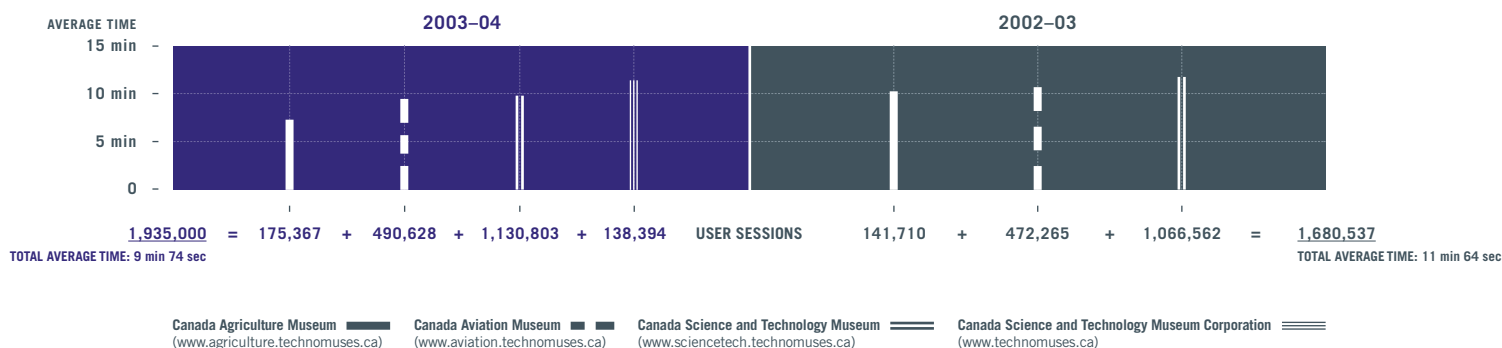
The Canada Science and Technology Museum has continued the development of interactive features, including material based on the **Fading Away** exhibition, the Made in Canada game featuring Canadian inventors in the site's Kids Zone, and new creations devised by our young cybervisitors in the Invention Gallery.

PERFORMANCE INDICATOR

The number of visitors to the Corporation's Web sites reached 1,935,000, exceeding the target for the year by 60%.

The Canada Agriculture Museum site now offers more robust search capabilities within the site. The What's New section now provides an Animal of the Month component, and interactive quiz elements were developed for the **Tractors** exhibition. Information concerning programs and events changes almost weekly, and is one of the most visited parts of the Web site.

FIGURE 11 — WEB SITE VISITS (Target = 1.2 million)



The Web also enables the Corporation to partner with other online organizations in creative ways. For example, both the Canada Aviation Museum and the Canada Science and Technology Museum featured portions of the annual Neuron Minds Challenge: an Internet puzzle for young science students organized by exploringminds.ca.

The Corporation continues to make active use of the Web to promote its museums and services to wider and more clearly defined audiences. The new Canada Aviation Museum site represents an important step in this direction: special attention was given to making the newly redesigned site accessible to those with disabilities by conforming to international accessibility standards. In applying roles and guidelines set out by the Web Standards Project, the Web Accessibility Initiative (WAI), and the World Wide Web Consortium (W3C), the Museum has created a site that is not only visually appealing but is also usable and accessible.

The new Canada Aviation Museum Web site has also been designed to meet the needs of particular audiences to help them find information easily. Visitors who require quick information about the physical site can go to the Visit feature, while teachers are able to get information about school programs in the School Zone. The site also includes a media section designed specifically for media looking for ready information about the Museum.

The Corporation's Web sites in general continue to offer new material and features targeted toward specific audiences, such as tourists, students and educators, donors, collectors, and the media. In reaching out to specific audiences, the Canada Agriculture Museum Web site has linked to Tourism Ottawa's portal. Further links with other related organizations and institutions are planned, some offering in depth historical or scientific information.

The Corporation has also enhanced its e-commerce offerings, further tailored to the needs of specific visitors. It is now possible for donors to contribute funds to specific activities and exhibits and to the museum collection of their choice; contributions may also be directed to where they are most needed. In addition, members can now renew their memberships online, and Web site visitors may now also buy gift memberships for all three Museums.

All three museums are custodians of rich visual collections and related artifacts and research on Canada's technological heritage, and the Corporation and its museums actively pursue partnerships to explore and showcase these collections. Additional resources for digitization efforts, and the development and presentation of in-depth contextual information, will allow even greater accomplishment and engagement of Canadian and international visitors in the history of science and technology in Canada.

Publications

The accumulated knowledge resulting from research, and collection and preservation activities, must be shared with the world at large, in order to promote understanding of Canada's scientific and technological heritage. This knowledge is of value to museums, researchers, and interested members of the public, both in Canada and abroad. Publications remain an effective method of sharing this information.

Publication activities are carried out in support of the following objective:

To make the Corporation's knowledge base available to a national and international audience.

Planned publication of Transformation 13 on the subject of scientific instruments was postponed due to a hold on the 2003-2004 workplan early in the fiscal year. Several other planned publications such as *Collection Profiles* and *Curator's Choice* were also delayed or replaced by other projects.

The corporate commitment to the fostering of an enlivening interdisciplinary view of our heritage is expressed through the Museum's journal the *Material History Review (MHR)*. Issues 57 and 58 were published and included contributions from museum and corporate staff. The annual *Material History Review* board meeting was attended by representatives of Queen's, Laval, Carleton and Memorial Universities. The Board reviewed submissions and established a program for an *MHR/SSHRC* sponsored conference on "Technology and the Body" to be held at the Canada Science and Technology Museum in November 2004. It also initiated planning of a theme issue of the journal on the topic "Landscapes"

The new CAVM Web site was launched in February 2004.



Members participating in the annual Members Appreciation Day.



Industrial Transfers: The Art of Decalcomania" is the title of a unique contribution to the Web series *Collection Profiles*.

The electronic version of the *Curator's Choice* title for the **Innovation Canada** exhibition was also mounted on the CSTM Web site.

Another 700 images were posted to the CN Images of Canada Gallery this year, bringing the total number of images offered by the Gallery to more than 5,000. This number exceeds the amount projected for completion during the year. In association with this project, CSTM Library and Information Services staff have been active in identifying the cellulose nitrate and cellulose acetate film stock in photographic collection to ensure its proper storage. During this past fiscal year, 25,000 records, representing 57,000 negatives, from the CN photograph collection were identified as to type of film stock, then separated and appropriately re-housed to ensure their optimum long-term storage. The total number of negatives examined for this purpose now exceeds 150,000.

Support Activities

A number of activities are carried out in support of the Corporation's museological activities. These include facilities management, revenue generation, informatics and administration.

Revenue Generation

Revenue generation provides a means by which the Corporation can supplement its government appropriation, thereby contributing to the fulfillment of its mandate. The success of revenue-generating initiatives depends on a sound knowledge of markets, and the development of attractive and saleable products.

Revenue-generating activities can also help the Corporation to establish links with its supporters and with various communities. The Corporation and its museums can benefit from strengthening these alliances, whether to individuals, through activities such as its membership program, or to the corporate sector through sponsorship initiatives.

Revenue-generating activities are carried out in support of the following objective:

To increase the financial resources available to the Corporation for the fulfillment of its mandate.

The Corporation continues to supplement its operating budget from admissions, the sale of its products and services, and sponsorships and donations. The Corporation also generates resources (services and money) through the active solicitation of volunteers and members. It will continue to charge appropriate admission fees in light of factors such as increasing costs, product improvement and market tolerance. Figure 12 identifies areas of revenue generation, and performance achieved against established targets.

Total revenues for the year were \$4.160 million, exceeding the revenue target of \$4.045 million. This total was 2.8% higher than the target, and 4.5% less than the previous year mainly due to program cancellations and reductions in public visiting hours, measures taken to address budgetary pressures.

Other revenue includes revenues from the sale of farm products (mainly milk) at the Canada Agriculture Museum, and from programs such as the Air Experience at the Canada Aviation Museum, and travelling exhibitions.

E-commerce sales from the Corporation's Web sites have increased due to the production of a "Buy. Give. Join." bookmark created by Commercial Operations and Corporate Development. The bookmarks have been distributed through different venues (mail-outs, inserts). Future advertising in magazines/newspapers as well as word-of-mouth from satisfied customers will improve sales. The Corporation's participation in Selections, the Canadian Museum Association's mail-order catalogue, resulted in the best year yet, exceeding revenue projections of \$64,000 for the year.

Digital Technology Equipment sales have consisted mainly of repeat clients. Several placement ads were made in *Muse* magazine in an effort to provide potential new customers with product information.

Total revenues for Corporate Development, which includes membership, sponsorship and philanthropic fundraising, were \$509,000. As a result of fundraising efforts, the annual campaigns generated a net \$73,000 in cash contributions. The Corporation recognized \$64,000 of its trust funds in support of restoration and educational programs.

The Corporation currently has active sponsorship agreements totalling \$980,000 in cash rights fees. Of this total, the Corporation recognized \$188,000 during this reporting year. The remaining balance represents \$332,000 in agreements secured during the reporting year, and \$460,000 in rights fees generated from previous years' agreements, which the Corporation will recognize over future years.

FIGURE 12 — REVENUE 2003–2004

	TARGET	ACTUAL
Cost Recoveries		
— Admissions and Programs	\$ 1,755	\$ 1,746
— Other	540	588
Commercial Operations	1,090	959
Corporate Development	500	509
Interest	160	358
Total	\$ 4,045	\$ 4,160

In fundraising, the Corporation has successfully completed its seventh annual appeal for the Canada Aviation Museum, and conducted donations efforts for both the Canada Science and Technology Museum and the Canada Agriculture Museum. A major grant from the Imperial Oil Foundation has been given to the Canada Science and Technology Museum to support the Engaging Science outreach program. In addition, the fundraising program continued to secure future gift commitments through its planned giving program.

Of special note is the Corporation's initiative to refurbish the Canadair C-54GM North Star 1 ST aircraft. This project represents a joint initiative between the Corporation and the Project North Star volunteer organization, and will serve as a pilot project for possible future ventures for the Corporation.

The Membership Program continued to grow during this fiscal year, enjoying increases in both its membership base and its revenues. The Program surpassed its \$200,000 revenue target, generating \$236,000, and exceeded its forecasted profit margin as operating expenses were less than expected. This growth continues to be the result of increased membership promotions and effective renewal campaigns. The Membership Office continues to generate revenue, encourage attendance, support public programming and cultivate continued support and patronage for each of the three Museums by coordinating Members' Only events, promoting all museum activities through mass mailings, e-commerce, encouraging public program and workshop registrations with electronic communications, and supporting local community goodwill and public relations initiatives.

During the past fiscal year, the Corporation's fundraising and membership programs improved the online giving and membership sales options, in order to capitalize on increased visitation to the Corporation's three Web sites. Corporate Development will continue to work with various areas of the Corporation to further develop these strategies.

Facilities

Facilities are an integral part of museum operations. They do more than house staff; they also provide a venue for the public, and housing for the collection.

Facilities have a profound effect on museum visitation. Appropriate museum architecture attracts visitors, contributes to the actual museum experience, and becomes part of an institution's public image, as a symbol of its mandate. A large number of comments by visitors allude to satisfaction or

PERFORMANCE INDICATOR

The Corporation's membership program grew to 25,000 individuals in 5,600 households, the largest of all the National Museums

dissatisfaction with the quality of our facilities and related services. Providing services for museum visitors requires special efforts not associated with office space.

Similarly, the provision of appropriate collection storage is essential for the long-term safeguarding of the collection. This requires control over all environmental factors which can become agents of deterioration. The size of some artifacts in the collection also raises specific needs in terms of access, and the ability to move these artifacts when required.

Facility activities are carried out in support of the following objective:

To provide quality venues for public programming activities and protection of the collection, and to promote operational effectiveness.

The Corporation occupies a total of 61,530 square metres, at a cost of \$97 per square metre, which was 8% below the established target of \$105 for the year. Decrease in utility usage despite the higher commodity price, efficiencies gained through operational enhancement, and delays in maintenance due to budget restraints were all contributing factors to this result.

Budget restraints increased the Corporation's emphasis on planning and analysis of buildings and systems. A thorough review was put in place to minimize costs, despite incurring some risk as a result of decisions to delay repairs and maintenance. An overall modification to environmental controls for office buildings and public space, aimed at reducing cooling and heating costs, produced savings in excess of \$100,000. Modifications to air-flow in the rare breeds barn also resulted in substantial energy conservation at the Canada Agriculture Museum.

A detailed plan has been produced to modify Building 94 at the Canada Agriculture Museum to accommodate an increased demand for educational programs. Implementation of the plan will be phased in as funds become available.

A new lease was negotiated for the office/artifact storage building at 2421 Lancaster Road. A new approach using a net lease will allow the Corporation to better manage the property to ensure that its needs are met while also benefitting from gains in efficiency. This arrangement is expected to generate savings in excess of \$50,000 per year.

The Corporation participated in a horizontal review of fixed capital assets among federal cultural organizations. The review process provided a forum for the Corporation to raise its facility management concerns, and identify measures aimed at addressing funding anomalies resulting from the organization's status as a Crown corporation. The data prepared for this exercise will provide the basis for a capital plan presentation required with next year's corporate plan. It is anticipated that the information now available to the Department of Canadian Heritage and the Treasury Board will assist in the resolution of ongoing facility management challenges faced by the Corporation.

Informatics

Informatics activities include the provision of advice and support services, and the management of services related to computers and information technology, such as market trends, the e-commerce environment, technology assessment, evaluation and selection. The Corporation endeavours to optimize the investments it makes in computer technologies, software and staff by striking an appropriate balance between needs, expectations and desires of the public and staff.

Informatics activities are carried out in support of the following objective:

To enable the fulfillment of the Corporation's public role in providing national and international audiences secure access to corporate information resources, as well as to facilitate internal business practices.

In achieving this end, several activities were identified as priorities for 2003–2004:

- > specific targets for the percentage of workstations that meet Corporate hardware and software standards;
- > complete implementation of the Corporate network hardware upgrade;
- > upgrade the Corporation's data network operating software;
- > implement the Corporation's server management strategy;
- > support administrative objectives of implementing a new Human Resources System, extending the automated management of electronic records, and reviewing and updating the Corporation's data network and data security systems;
- > support Web site objectives to provide enhanced on-line access to the Collections and Library holdings;

- > develop corporate strategy for managing Web content, in conjunction with other stakeholders; and
- > revamp the internal corporate Web portal.

The Corporation has met aggressive targets in replacing aging desktop hardware and operating system infrastructure. Adherence to strict hardware standards and the use of a standardized desktop software image have been vital in achieving progress in this area; as a result, more than 91% of workstations meet the Corporation's hardware standard, slightly exceeding the target of 90% for the year, while 78% meet the Corporation's desktop software standard, exceeding the target of 70%.

The Corporation continued upgrading its data network infrastructure, with enhancements at the Science and Technology and Aviation campuses, and improved connectivity to the Internet. These projects will continue into 2004–2005. Upgrades for the Canada Agriculture Museum were delayed due to negotiations with the National Capital Commission and other stakeholders for the Museum's historic site; with concerns now addressed, this campus will be upgraded by Summer 2004.

The upgrade of older server and network operating systems has been started, with a streamlining of the Corporation's network operating system architecture, putting in place new server operating system licencing, as well as initial server deployments based on current network operating system technology. The full roll-out and migration to the Microsoft Windows Active Directory will take place in 2004–2005.

New standards for servers, and a new model for managing data storage, have been established. Implementation will be staged over several years; procurement for the first stage was initiated, with acquisition of a server for administrative systems. Further stages will be carried out in accordance with the Corporation's IT capital replacement planning.

Several new and upgraded administrative systems were implemented during the year, including payroll, purchasing, and admissions databases, and a variety of workflow systems based on the Corporation's workgroup collaboration platform.

Several other projects are underway, including a new human resources system, closer integration between human resources and financial systems, and volunteer and fundraising databases. The execution of the Corporation's server management strategy will enable many of these administrative enhancements, allowing for much more efficient provision of administrative services.

The Division is also assisting in the analysis of requirements for an electronic records management system. Significant investment will be required to meet requirements in this essential area.

The Corporation's library catalogue is now available on the Corporation's intranet. Plans have been developed for a library system upgrade, which will allow the Corporation to offer this catalogue to the public. Informatics continued to work on the configuration of the Corporation's new collection system, with internal Web access to be available in 2004–2005, and public access to follow.

The Corporation has already incorporated content management systems and databases into portions of its internal and public Web sites, and has begun a review of the latest technologies

available in the marketplace. Development of the Corporation's Web content management strategy and evaluation of alternatives will continue into 2004–2005. At this early stage, a comprehensive system to manage content for all the Corporation's Web sites shows promise, but such a system will require a significant investment in software licensing and infrastructure.

The Corporation's intranet has been redesigned, and implementation is ongoing. This enhanced intranet site is expected to allow additional operational efficiencies, by providing a more consolidated, authoritative source for information and services for all staff. The revamped portal will be launched in 2004–2005.

The Corporation continues to employ a multi-faceted information security strategy, using "defence in depth". Information security measures are reviewed on an ongoing basis. The Corporation's investments in anti-virus, firewall, and e-mail gateway filtering systems have served it very well, allowing the Corporation to avoid the serious consequences of the numerous Internet security threats of the year, such as the "Blaster" and numerous e-mail-based worms.

The IT landscape continues to change rapidly, however, and this places new demands on the Corporation. Issues such as the burden of software patching and the ubiquitous problem of SPAM have become serious productivity issues, and must be dealt with. The federal government's increasing reliance on the Secure Channel Network (GE-Net) also imposes additional operating costs on the Corporation, which must cover expenses on its own for access to this now-essential government network.

In dealing with higher priorities, some operational expenses have been deferred; for example, office productivity software has not been upgraded for several years, due in part to the high cost of licencing and conversion. The Corporation is very much aware of the importance of making strategic investments in information technology that enable it to fulfil its mandate, but this requires recognition of the additional resources required.

Administration

Administrative activities include the provision of advice, support services and control of resources. The Corporation endeavours to optimize its investment in administrative activities by striking a balance between cost and quality-of-service.

Administrative activities are carried out in support of the following objective:

To provide effective and efficient services within a framework of appropriate management control.

As a federal Crown corporation, the CSTMC is subject to numerous pieces of legislation and many regulations and government policies. The Corporation's strategy may be summarized as good corporate citizenship; that is, the Corporation strives to ensure that it operates effectively, efficiently and economically in accordance with legislative requirements, sound business practices and ethical management standards. The Corporation continued to refine its records management process to provide a structure and system to meet needs arising

from the growth of electronic records, while also responding to requirements introduced by the National Archives. Changes introduced by Canada Post required the replacement of mailing equipment, in order to comply with their bar code system.

Automation of the contracting process resulted in a review of terms and conditions with other national museums in order to minimize risk, while at the same time streamlining the operation for better response to client needs. Extensive analysis was completed in the area of insurance in order to balance significant cost escalations while protecting the Crown's interests. Administrative support was also provided to the construction project at the Canada Aviation Museum.

Progress continued on the development of a new classification system for the Corporation. Completed elements included the design and testing of the classification standard, the development of a position questionnaire, and the evaluation of the position questionnaire completed by the staff. The weighing of the factors, the determination of the point-bands and level will be completed in April 2004. The determination of salary scales and conversion rules will be negotiated with the renewal of the collective agreement which expired on March 31, 2004.

Progress continued on the implementation of an action plan to achieve full compliance with requirements of the Canadian Human Rights Commission under its employment equity program and practices.

The Human Resources Division made good progress in implementing a new Human Resources Information System. The payroll module was fully implemented and required adjustments were made during its first full year of operation. The customizing of the remaining modules (personal history, leave and attendance, training, etc.) have been completed, and their implementation should be completed by the end of Summer 2004.

Other accomplishments in Human Resources included the successful negotiation of a one-year collective agreement, and the delivery of a sensitivity training program for all employees on different forms of harassing behaviour.

The Corporation set an objective of limiting its administrative overhead to 18% (including the core administrative functions of Finance, Human Resources, and Administrative Services, as well as the Directorate and Board of Trustees, and those Facilities, Protection and Common Services costs which cannot be attributed to any operational activity). This year's actual result was 19%, which was slightly higher than the target.

Internal Audit and Evaluation

Internal Audit

The Canada Science and Technology Museum Corporation, in accordance with Section 131(1) of the *Financial Administration Act*, has an annual internal audit program which is carried out by contract auditors. This program is supplemented by an annual audit of the Corporation's financial statements by the Auditor General of Canada.

As part of its annual internal audit program, the Corporation completed an audit on its sponsorship program. As competition to obtain corporate sponsorship dollars continues to grow within the non-profit sector, it is necessary for the Canada Science and Technology Museum Corporation to ensure that its sponsorship program remains successful in attracting and sustaining resources. To add to the funding challenges, a new model has been introduced within the Corporation, which requires that external funding be secured prior to the development of any new major exhibitions. This approach reflects the reality of limited available resources and an increased reliance on external partners for sources of revenue. This shift makes sponsorship services essential to the Corporation's future stability and growth.

The key objectives of this audit were to review current sponsorship practices within the Corporation for efficiencies, to compare current practices with the "sponsorship best practices" of international leading organizations, and to identify areas of improvement in order to ensure the future reliability of the sponsorship program. APCO Worldwide was engaged to perform the audit, which took place over a period of three months beginning in November 2003. The consultant found the CSTMC sponsorship team members to be both knowledgeable and experienced in the sponsorship process, abreast of current trends, and of use to other national organizations as an "authoritative source for pragmatic advice on sponsorship within public sector organizations." The consultant also determined that the sponsorship program provides a substantial return on the Corporation's investment, given that the marketing of three affiliate museums is somewhat more challenging compared to other "national properties". Clearly, each Museum does not have a broad corporate sponsorship appeal similar to sport and entertainment properties, but rather a niche market that must be targeted at industry sectors that generally do not engage in a significant level of sponsorship activity.

The area of greatest concern for the consultant was the creation of a more cooperative effort between program staff and the sponsorship team. To address this deficiency, the consultant recommended improved methods of communication between the program staff and the sponsorship team, as well as increased training on the sponsorship process for program staff.

Evaluation

The Corporation continues to study and monitor its public programming performance, using a range of evaluation techniques.

Keeping Current Visitors

Softening attendance patterns at all three museums have focussed attention on the factors influencing repeat visitation. Key among these is visitor satisfaction, and the Corporation continued to gather visitor feedback, and to monitor visitor characteristics and satisfaction, through the SurveyWorks kiosk system. In an effort to standardize computer hardware, two kiosks have been converted to Intel PC systems from the existing Apple iMacs. Improved reliability has not been attained yet with the new Windows OS, but testing continues.

With this program being monitored on an ongoing basis, the Corporation has noticed changes in the pattern of visitor satisfaction over the years. Traditionally, summer visitors — i.e., tourists — were more satisfied, since they had little or no previous experience with our museums. Recently however, the fall-winter visitors at the CSTM and the CAgM scored a "very satisfied" level of a little over 50%, compared to about 35% of summer visitors. The CAVM's "very satisfied" level remains steady at 58% year-round. Change in a basic performance indicator that summarizes a wide array of factors hints at significant underlying changes in the market that bear investigating.

Sometimes change is good. When analyzing performance indicators such as intent to recommend or to return, typical predictive variables include visitors having fun, the museum having something for everyone, atmosphere, etc. The most recent data (fall-winter 2003) reveals a new variable at the CSTM: accuracy of information obtained before a visit. Typically, about 40% of visitors, especially lower-income families, will call ahead or visit a museum's Web site before making the trip. The CSTM has recently invested in its call centre staff and hardware, updated its Web site information, and improved internal communication. The investment seems to be paying off, as 80% of intent to recommend the Museum, and 70% of the intent to return, can be predicted by the accuracy of supplied information.

Museum members are critical to maintaining visitor loyalty and improving access to the three Museums. Although regular communication with the Membership Office provides information, a formal questionnaire study was developed to fill in the blanks. Careful consideration was given to the privacy and ethical concerns of such research and the membership database.

In the medium and short term, the Corporation's three museums strive to provide attractive programs and exhibitions to encourage visitors to come back, especially with family and friends. Front-end and formative evaluation is particularly important in developing exhibitions that can deliver on the promise to entertain and inform. The proposed Synchrotron exhibition at the CSTM underwent front-end testing, which found that the public were greatly interested in the applications of the technology, although they had a hard time with the underlying physics. Formative testing finished up in the **Nortel Networks Connexions** exhibition, and in the EnerCan-CSTM Climate Change Challenge kiosk.

Mystery visits were not carried out this year, as a cost-cutting measure related to re-prioritization of government resources.

Attracting New Visitors

The primary long-range initiative for attracting new visitors is the CSTM Visioning Exercise. This activity included some primary research with CSTM visitors, the local population, and residents of Canada. Although not part of the original Visioning work, the data files for the research were purchased and explored, partly to validate the consultants' work, but also to gain access to new variables in our model of museum visitorship. This data included local focus group tapes, a visitor intercept survey, a local telephone survey, and a national telephone survey. The national

data included questions on ethnicity, which was a first for our museums, and which will provide background for a strategic realignment of our target audiences.

The visioning focus group tapes contained numerous comments about the architecture of the CSTM building: “Technopark gives a big build-up, but then the building looks dirty, old, run-down.” “To get there you have to pass the Midway family fun park with this big, giant inflatable clown revolving on the roof. . . and you drive the kids to this one-storey, squat building with a pebble roof.” To try and quantify this view, a telephone survey of National Capital residents was carried out, and found that although only 3% of respondents thought the building was a “national disgrace”, two-thirds did find it to be shabby or worse. The CSTM did poorly on other questions about location, suitability for a museum of national stature, and whether respondents would bring visitors to the Museum.

Building Capacity

This past year, the Corporation was finally able to participate in a benchmarking exercise with two other federal institutions: the Canadian Museum of Civilization and Rideau Hall. This involved sharing visitor data for the summer, on 25 variables ranging from group size to satisfaction with food services. Each partner received results compared with an aggregate market average, allowing each to assess their relative performance. It is hoped that this partnership can be expanded in future to include the Canadian Museum of Nature, the National Capital Commission, and Parliament Hill, as this would more accurately represent a typical museum visit to Canada’s Capital Region.

The CSTM’s growing expertise in the development of exhibitions and interactives is being recognized among museum professionals, with staff putting on an interactive development workshop for the Canadian Association of Science Centres (CASC) in Sudbury, and participating on a CASC panel in Vancouver on travelling exhibitions on Canadian science, and hosting an Atlantic Canada Opportunities Agency museums tour explaining the exhibition development and evaluation process.

PERFORMANCE INDICATOR

The Corporation partnered with the Canadian Museum of Civilization and Rideau Hall, to capture and share visitor data.

The Year in Statistics

The following is a statistical profile of some of the Corporation's activities during the year.

CANADA SCIENCE AND TECHNOLOGY MUSEUM CORPORATION

	2003-2004	2002-2003
Collection Development and Management		
Number of artifact collection records	36,400	34,568
Number of artifacts acquired	545	682
Percentage of artifacts acquired by donation (%)	86.3%	79.4%
Number of artifacts on loan	574	473

CANADA AGRICULTURE MUSEUM

	2003-2004	2002-2003
Museum Access and Use		
Number of school group visits	839	603
Number of participants in school group visits	20,052	18,275
Number of school program modules offered	46	52
Number of demonstrations, tours and workshops given	2,857	3,732
Number of people participating in demonstrations, tours and workshops	63,879	86,513
Number of offsite demonstrations or events	2	2
Number of visitors to offsite demonstrations or events	211,000	200,300
Other use of facilities (number of participants)	1,005	4,500
Number of Web site user sessions	175,367	141,710

CANADA AVIATION MUSEUM

	2003-2004	2002-2003
Museum Access and Use		
Number of school group visits	1,092	1,095
Number of participants in school group visits	34,951	35,465
Number of school program modules offered	15	15
Number of demonstrations, tours and workshops given	1,035	2,595
Number of people participating in demonstrations, tours and workshops	56,271	44,960
Number of offsite demonstrations or events	9	10
Number of visitors to offsite demonstrations or events	47,500	45,390
Other use of facilities (number of participants)	19,638	16,660
Number of Web site user sessions	493,115	472,265

CANADA SCIENCE AND TECHNOLOGY MUSEUM

	2003-2004	2002-2003
Museum Access and Use		
Number of school group visits	3,346	2,536
Number of participants in school group visits	113,012	112,244
Number of school program modules offered	44	46
Number of demonstrations, tours and workshops given	13,349	7,708
Number of people participating in demonstrations, tours and workshops	210,686	259,738
Number of special events held	18	19
Number of participants in special events	75,897	95,346
Number of travelling exhibitions on tour	2	2
Number of venues receiving travelling exhibitions	2	3
Number of visitors to travelling exhibitions (estimated)	1,000	1,028,780
Number of offsite demonstrations or events	11	10
Number of visitors to offsite demonstrations or events	7,212	4,871
Other use of facilities (number of participants)	7,240	6,759
Number of Web site user sessions	1,029,123	975,800

Financial Perspective

FIGURE 13 — COMPARISON OF FINANCIAL RESULTS (in thousands of dollars)

	2004 Plan	2004 Actual	2003	2002
REVENUES				
Parliamentary Appropriation	\$ 23,611	\$ 24,159	\$ 26,196	\$ 22,416
Generated Revenues	4,045	4,160	4,359	4,251
Total Revenues	27,656	28,319	30,555	26,667
EXPENSES				
Personnel	\$ 14,997	\$ 15,268	\$ 15,035	\$ 13,883
Accommodation	6,145	5,706	6,460	6,802
Depreciation	2,078	1,331	1,206	1,235
Operations	6,306	5,824	7,757	6,316
Total Expenses	27,448	28,129	30,458	28,236
Net Income (Loss)	208	190	97	(1,569)
EQUITY OF CANADA	\$ 652	\$ 241	\$ 51	\$ (46)

The appropriation originally voted by Parliament was \$35.343 million, which included \$11.735 million for the construction of new collection storage and archives facilities at the Canada Aviation Museum. Part of this amount has been deferred and will be recognized during the construction. During the year, funding was supplemented by \$1.2 million for personnel cost adjustments. The Corporation was also asked to participate in the government-wide initiative by contributing \$250,000 to the \$1 billion requested.

The CSTMC has faced increasing pressures over the last several years on its ability to effectively carry out its activities. This past year efforts were made to look for efficiencies and more effective ways to meet its responsibilities and objectives. As part of this process, the Corporation realigned its resources to better respond to its strategic objectives, as well as to bring into balance its salary and operating spending. Twenty-five positions were eliminated with ten employees laid off; however two employees accepted alternative positions. The Corporation also delayed some capital expenditures, reduced programs and operating hours, and eliminated several special events. Sponsorship activities were increased and a review of the media strategy was completed. Income from Trust accounts was also used for certain activities.

Overall operating costs decreased by \$2.3 million in comparison to last year but exceeded the budget plan by \$0.7 million, or 2.5%. Last year's expenses included funding by the federal government for a study for a new Canada Science and Technology Museum in the amount of \$1 million.

Other efforts to balance the sources and uses of funds in this environment included a reduction in programs and exhibition renewal. Facility management projects were limited to health and safety issues. Facility management activity at the Canada

Aviation Museum focussed on preparations for the move of its collection to the new storage hangar. There was also limited facility work carried out at the Canada Science and Technology Museum. The uncertainty in the timing of a new museum building continues to have an impact on this site, as we evaluate all work to ensure we can derive a proper return on investment in the current facilities. Energy conservation reviews and utility price monitoring resulted in reduced utility costs in the amount of \$300,000, despite an increase in the market commodity prices.

An increase in the Corporation's revenues was in fact a result of an increase in appropriation revenue recognized in the current year. Capital projects were deferred in order to stabilize the fiscal situation. Some of these projects will need to be executed in 2004-2005 which will have a reverse effect on the appropriation revenue, likely resulting in an operating loss. The challenge will be in selecting only critical projects to the extent a positive equity position can be maintained without compromising facilities and operations. However, the Corporation has been quite successful in its efforts to seek out sponsors and partners to assist with the delivery of its programs and activities.

Discussions continued with the Department of Canadian Heritage staff on redressing the Corporation's financial situation. A Treasury Board report was completed on facility costs in cultural institutions. The report recognized funding anomalies for facility management between Departments and Crown corporations which the Corporation hopes will be addressed as part of this process. Managing three museum sites within current resource levels is becoming increasingly difficult, and opportunities for growth and innovation are compromised due to the strain on funding.

Financial Statements

Management's Responsibility for Financial Statements

The financial statements contained in this annual report have been prepared by Management in accordance with Canadian generally accepted accounting principles, and the integrity and objectivity of the data in these financial statements are Management's responsibility. Management is also responsible for all other information in the annual report and for ensuring that this information is consistent, where appropriate, with the information and data contained in the financial statements.

In support of its responsibility, Management has developed and maintains books of account, records, financial and management controls, information systems and management practices. These are designed to provide reasonable assurance as to the reliability of financial information, that assets are safeguarded and controlled, and that transactions are in accordance with the *Financial Administration Act* and regulations, as well as the *Museums Act* and the by-laws of the Corporation.

The Board of Trustees is responsible for ensuring that Management fulfils its responsibilities for financial reporting and internal control. The Board exercises its responsibilities through the Audit Committee, which includes a majority of members who are not officers of the Corporation. The Committee meets with Management and the independent external auditor to review the manner in which these groups are performing their responsibilities and to discuss auditing, internal controls, and other relevant financial matters. The Audit Committee has reviewed the financial statements with the external auditor and has submitted its report to the Board of Trustees. The Board of Trustees has reviewed and approved the financial statements.

The Corporation's external auditor, the Auditor General of Canada, audits the financial statements and reports to the Minister responsible for the Corporation.



Christopher J. Terry
Chief Executive Officer



Fernand Proulx
Executive Director, Finance, Administration and Facilities

May 28, 2004



AUDITOR'S REPORT

To the Minister of Canadian Heritage

I have audited the balance sheet of the National Museum of Science and Technology as at March 31, 2004 and the statements of operations and equity of Canada and cash flows for the year then ended. These financial statements are the responsibility of the Corporation's management. My responsibility is to express an opinion on these financial statements based on my audit.

I conducted my audit in accordance with Canadian generally accepted auditing standards. Those standards require that I plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In my opinion, these financial statements present fairly, in all material respects, the financial position of the Corporation as at March 31, 2004 and the results of its operations and its cash flows for the year then ended in accordance with Canadian generally accepted accounting principles. As required by the *Financial Administration Act*, I report that, in my opinion, these principles have been applied on a basis consistent with that of the preceding year.

Further, in my opinion, the transactions of the Corporation that have come to my notice during my audit of the financial statements have, in all significant respects, been in accordance with Part X of the *Financial Administration Act* and regulations, the *Museums Act* and the by-laws of the Corporation.

Richard Flageole, FCA
Assistant Auditor General
for the Auditor General of Canada

Ottawa, Canada
May 28, 2004

BALANCE SHEET

AS AT MARCH 31

<i>(in thousands of dollars)</i>	2004	2003
ASSETS		
Current		
Cash and short-term investments <i>(Note 3)</i>	\$ 13,526	\$ 6,495
Accounts receivable		
Government departments	1,348	1,404
Others	292	364
Inventories	498	442
Prepaid expenses	695	398
	16,359	9,103
Restricted cash and investments	224	209
Collection <i>(Note 4)</i>	1	1
Property and equipment <i>(Note 5)</i>	17,056	10,472
	\$ 33,640	\$ 19,785
LIABILITIES AND EQUITY OF CANADA		
Current		
Accounts payable and accrued liabilities		
Government departments	\$ 285	\$ 276
Others	3,735	2,949
Current portion of employee future benefits	370	245
Deferred revenues	1,048	539
	5,438	4,009
Employee future benefits <i>(Note 6)</i>	1,570	1,470
Deferred contributions <i>(Note 7)</i>	224	209
Deferred capital funding <i>(Note 8)</i>	26,167	14,046
Equity of Canada	241	51
	\$ 33,640	\$ 19,785

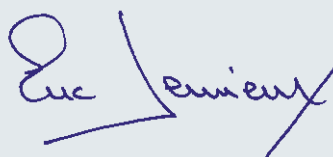
Commitments *(Note 9)*

The accompanying notes and schedule form an integral part of the financial statements.

APPROVED BY THE BOARD OF TRUSTEES



CHAIRMAN



CHAIRMAN, AUDIT COMMITTEE

STATEMENT OF OPERATIONS AND EQUITY OF CANADA

FOR THE YEAR ENDED MARCH 31

<i>(in thousands of dollars)</i>	2004	2003
REVENUES		
Admission		
Science and Technology	\$ 953	\$ 920
Aviation	477	459
Agriculture	316	293
Other	588	666
Commercial Operations	959	1,135
Corporate Development	509	719
Interest	358	167
Total Revenues	4,160	4,359
EXPENSES (Schedule)		
Public Facilities		
Science and Technology	8,590	9,891
Aviation	5,010	5,302
Agriculture	2,488	2,580
Collection Management	5,124	5,106
Support Activities	5,586	6,373
Amortization of property and equipment	1,331	1,206
Total Expenses	28,129	30,458
Excess of expenses over revenues	(23,969)	(26,099)
Parliamentary Appropriations <i>(Note 11)</i>	24,159	26,196
Net Income	190	97
Equity (deficit) of Canada at the beginning of the year	51	(46)
Equity of Canada at the end of the year	\$ 241	\$ 51

The accompanying notes and schedule form an integral part of the financial statements.

STATEMENT OF CASH FLOWS

FOR THE YEAR ENDED MARCH 31

<i>(in thousands of dollars)</i>	2004	2003
CASH FLOWS FROM OPERATIONS		
Cash received (clients)	\$ 4,321	\$ 4,030
Parliamentary Appropriations received	19,310	24,020
Cash paid (employees and suppliers)	(26,132)	(28 081)
Interest received	358	167
Total cash flows used in operating activities	(2,143)	136
CASH FLOWS FROM INVESTING ACTIVITIES		
Acquisition of property and equipment	(7,916)	(1,723)
Decrease (increase) in restricted cash and investments	(15)	135
Total cash flows used in investing activities	(7,931)	(1,588)
CASH FLOWS FROM FINANCING ACTIVITIES		
Funding for the acquisition of property and equipment	17,026	4,173
Restricted contributions and related investments income	79	197
Total cash flows provided by financing activities	17,105	4,370
INCREASE IN CASH	7,031	2,918
Cash and short-term investments, beginning of the year	6,495	3,577
Cash and short-term investments, end of the year	\$ 13,526	\$ 6,495

The accompanying notes and schedule form an integral part of the financial statements.

Notes to Financial Statements

March 31, 2004

1. Authority, mandate and operations

The National Museum of Science and Technology was established by the *Museums Act* on July 1, 1990, and is a Crown corporation named in Part 1 of Schedule III to the *Financial Administration Act*.

The mandate of the Corporation, as stated in the *Museums Act*, is to foster scientific and technological literacy throughout Canada by establishing, maintaining and developing a collection of scientific and technical objects, with special but not exclusive reference to Canada, and by demonstrating the products and processes of science and technology and their economic, social and cultural relationships with society.

The Corporation is operating as the Canada Science and Technology Museum Corporation. It manages three museum sites: the Canada Science and Technology Museum, the Canada Aviation Museum and the Canada Agriculture Museum. The museums operate under a common set of corporate policies. Support services such as human resources, finance and facilities management are provided centrally. The Corporation's operations are divided into two complementary activities:

Management of the collection

This includes documentation, cataloguing and conservation.

Management of public facilities and programs

This includes the development and maintenance of exhibitions, interpretive and educational activities, communication and promotion, historical research, the library and related services, gift shops, food services and other services to visitors.

2. Accounting policies

These financial statements have been prepared in accordance with Canadian generally accepted accounting principles. The significant accounting policies are:

(a) Inventories

Inventories are valued at the lower of cost and net realizable value.

(b) Collection

The collection constitutes the major portion of the Corporation's assets but is shown at a nominal value of \$1,000 on the balance sheet because of the practical difficulties in reflecting it at a meaningful value. Items purchased for the collection are recorded as expenses in the year of acquisition. Items donated to the Corporation are not recorded in the books of account.

(c) Property and equipment

Property and equipment are recorded at cost and are amortized using the straight-line method over their estimated useful lives as follows:

Building renovations	10 to 25 years
Equipment	5 to 12 years
Office furniture	5 to 10 years

Amounts included in uncompleted capital projects are transferred to the appropriate capital asset classification upon completion and are amortized according to the Corporation's policy.

(d) Employees' future benefits

i) Pension benefits

Employees participate in the Public Service Superannuation Plan administered by the Government of Canada. The Corporation's contribution to the plan reflects the full cost of the employer contributions. This amount is currently based on a multiple of the employee's required contributions, and may change over time depending on the experience of the Plan. These contributions represent the total pension obligations of the Corporation and are charged to operations on a current basis. The Corporation is not currently required to make contributions with respect to actuarial deficiencies of the Public Service Superannuation Account.

ii) Severance benefits

Employees are entitled to severance benefits, as provided for under labour contracts and conditions of employment. The cost of these benefits is accrued as the employees render the services necessary to earn them. Management determined the accrued benefit obligation using a method based upon assumptions and its best estimates. These benefits represent the only obligation of the Corporation that entails settlement by future payment.

(e) Donations

The Corporation follows the deferral method of accounting for donations.

Donations received for specific purposes, and related investment income, are deferred and recognized as revenue in the year in which the related expenses are incurred. Donations without restrictions are recognized as revenue when received or receivable if the amount to be received can be reasonably estimated and collection is reasonably assured.

Volunteers contribute a significant number of hours per year. Because of the difficulty of determining their fair value, contributed services are not recognized in these financial statements.

(f) Parliamentary appropriations

The Government of Canada provides funding to the Corporation. Parliamentary appropriations received for specific projects are recorded as deferred capital funding and recognized in the year in which the related expenditures are incurred. The portion of the parliamentary appropriation intended to be used to purchase depreciable capital assets is recorded as deferred capital funding and amortized on the same basis and over the same periods as the related capital assets. The remaining portion of the appropriation is recorded in the statement of operations in the year for which it is approved.

(g) Measurement uncertainty

The preparation of financial statements in accordance with Canadian generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of income and expenses for the year. Employee-related liabilities and estimated useful lives of capital assets are the most significant items where estimates are used. Actual results could differ from those estimated.

3. Cash and short-term investments

<i>(in thousands of dollars)</i>	2004	2003
Cash	\$ 274	\$ 3,595
Short-term investments	13,252	2,900
	\$ 13,526	\$ 6,495

The Corporation's investments are limited to 90 days in Schedule "A" banks, government-backed paper and commercial paper rated A++ by the Canadian Bond Rating Services. The overall portfolio yield as at March 31, 2004 was 2.7% (2003 — 2.64%) and the average term to maturity was 57 days (2003 — 67 days).

The market value of the short-term investments is approximately \$13,269,000. Accrued interest of \$16,753 is presented in accounts receivable.

4. Collection

Part of the mandate of the Corporation is "to foster scientific and technological literacy throughout Canada by establishing, maintaining and developing a collection of scientific and technological objects." This collection is the main asset of the Corporation and is composed of over 450,000 items divided in the following areas.

Aviation: aircraft and related materials

Communications: graphic arts, film, photography and related systems, broadcasting, sound recording and reproduction, electronic communications and electronic music

Industrial technology: generic industrial processes, engineering, industrial design, construction, domestic appliances, tools and systems

Natural resources: energy production, processing and infrastructure, mining and extraction technology

Renewable resources: agriculture, forestry and fishery technologies — (harvesting and primary processing)

Scientific instrumentation: instruments, tools and systems with direct application to mathematics, chemistry, physics, as well as astronomy, astrophysics, medicine, meteorology, surveying and mapping, and information technology

Transportation: motorized and non-motorized wheel, track and trackless vehicles, motorized and non-motorized marine transportation, as well as the supporting infrastructure of technologies, tools and instruments

5. Property and equipment

<i>(in thousands of dollars)</i>	2004			2003
	Cost	Accumulated amortization	Net book value	Net book value
Building renovations	\$ 13,645	\$ 7,007	\$ 6,638	\$ 7,490
Office furniture	5,550	4,482	1,068	1,073
Equipment	5,805	4,874	931	942
Uncompleted capital projects	8,419	-	8,419	967
	\$ 33,419	\$ 16,363	\$ 17,056	\$ 10,472

Capital assets do not include land and buildings occupied by the Corporation since they are owned either by the Government of Canada or private interests. The Corporation is currently building a collection storage facility at the Canada Aviation Museum.

6. Employee future benefits

i) Pension benefits

The Public Service Superannuation Plan required the Corporation to contribute at a rate of 2.14 times the employees contribution. The Corporation's contribution to the Plan during the year was \$1,185,123 (2003 — \$1,290,580).

ii) Severance benefits

The Corporation provides severance benefits to its employees. This benefit plan is not pre-funded and thus has no assets, resulting in a plan deficit equal to the accrued benefit obligation. Information about the plan is as follows:

<i>(in thousands of dollars)</i>	2004	2003
Accrued benefit obligation, beginning of year	\$ 1,715	\$ 1,485
Expense for the year	459	290
Benefits paid during the year	(234)	(60)
Accrued benefit obligation, end of year	1,940	1,715
Short-term portion	370	245
Long-term portion	1,570	1,470
	\$ 1,940	\$ 1,715

7. Deferred contributions

This represents the unspent amount of donations received from individuals and corporations for specific purposes and related investment income.

<i>(in thousands of dollars)</i>	2004	2003
Balance at the beginning of the year	\$ 209	\$ 344
Gifts and bequests	73	189
Interest	6	8
Amount recognized as revenue in the year	(64)	(332)
Balance at the end of the year	\$ 224	\$ 209

The balance in cash and short-term investments at the end of the year is restricted for specific purposes and is managed in accordance with the donors' wishes and the by-laws of the Corporation.

8. Deferred capital funding

Deferred capital funding represents the unamortized portion of parliamentary appropriations used or to be used to purchase depreciable capital assets.

Changes in the deferred capital funding balance are as follows:

<i>(in thousands of dollars)</i>	2004	2003
Balance at the beginning of the year	\$ 14,046	\$ 12,372
Appropriation used in the current year to purchase depreciable capital assets	7,916	1,723
Appropriation received in the current year to purchase depreciable capital assets in future years	9,110	2,450
Deferred appropriation used in current year to complete capital projects	(3,574)	(1,293)
Amortization	(1,331)	(1,206)
Balance at the end of the year	\$ 26,167	\$ 14,046

9. Commitments

As at March 31, 2004, the Corporation had entered into various agreements for accommodation, protection services, facilities management services and exhibition rentals for a total of \$19,722,000. The commitments also include contracts for building construction services for the new hangar at the Aviation Museum of Canada in the amount of \$8,259,000. The future minimum payments for the next five years are as follows:

<i>(in thousands of dollars)</i>	
2004–2005	\$ 11,872
2005–2006	2,584
2006–2007	2,209
2007–2008	1,534
2008–2009	1,523
	\$ 19,722

10. Related party transactions

The Corporation is related to all Government of Canada departments, agencies and Crown corporations. The Corporation incurred expenses for the work and services provided by other government departments and agencies. These transactions were conducted in the normal course of operations, under the same terms and conditions that applied to outside parties.

11. Parliamentary appropriations

(in thousands of dollars)

	2004	2003
Main Estimates amount provided for operating and capital expenditures	\$ 35,343	\$ 24,833
Supplementary estimates:		
Contribution to federal reallocation	(250)	-
Severance adjustments and retroactive wages settlement	1,187	687
Increased security	-	1,200
Outreach project	-	150
Visioning study	-	1,000
	36,280	27,870
Portion of amount deferred for capital projects	(9,110)	(2,450)
Deferred appropriation used in current year to complete capital projects	3,574	1,293
Amounts used to purchase depreciable capital assets	(7,916)	(1,723)
Amortization of deferred capital funding	1,331	1,206
Parliamentary appropriations	\$ 24,159	\$ 26,196

12. Financial instruments

The carrying amounts of the Corporation's accounts receivable, accounts payable and accrued liabilities approximate their fair values due to their short term to maturity.

SCHEDULE OF EXPENSES

FOR THE YEAR ENDED MARCH 31

<i>(in thousands of dollars)</i>	2004	2003
Personnel costs	\$ 15,268	\$ 15,035
Professional and special services	1,885	2,835
Property taxes	1,759	1,859
Leases of buildings	1,777	1,777
Utilities	1,052	1,381
Amortization of capital assets	1,331	1,206
Material and supplies	905	1,206
Property management services	755	712
Protection services	612	590
Gift stores, cafeteria and product marketing	432	573
Repairs and upkeep of buildings	363	315
Advertising	348	645
Repairs and upkeep of equipment	304	317
Publications	285	308
Communications	215	210
Travel	189	481
Design and display	148	241
Rentals of equipment	118	153
Freight express and cartage	108	89
Office supplies and equipment	99	103
Miscellaneous	75	94
Books	60	81
Purchase of objects for the collection	41	247
Total expenses	\$ 28,129	\$ 30,458

Our Supporters

Volunteers

Public programming, collection and research, and corporate services activities continued to benefit from a dedicated volunteer corps. In 2003–2004, 396 volunteers performed 28,425 hours of service on behalf of the Corporation, and we are grateful for their continuing support, service and commitment to our museums.

CANADA SCIENCE AND TECHNOLOGY MUSEUM/CANADA AGRICULTURE MUSEUM

Yannie Aass	Ronald Dexter	Lyness Jones	Ognjen Papic
Wagdi Abdelghaffar	David Toscano Didomenicantonio	Michael Joyce	Graham J. Parsons
Benoit Allain-Melanson	Jason Ding	Ernest Jury	Luxmika Pathmaganth
Ghadi Antoun	Melissa Dodge	Aditya Kalakonda	Sakithiya Pathmaganth
Tizar Arash	Gerald Doris	Navya Kalidindi	Sivakumari Pathmaganth
Melanie Ash	Duncan duFresne	Brian Arnold Kelsey	Chi Mai Pham
Agishti Baghdasarian	Éric Dubé	Michael Kennedy	May Pham
Barroyer Baghdasarian	Paul Duguay	Yi Ke	Gregory Ranger
Priya Bansal	Shane Duquette	Daniel Khan-Bradbury	Anita Rashidi
Nadine Barakat	Caitlan Durocher	Mourin Khan	Eric Ratnayake
Edmund Barrick	Michael Earl	Stephen Kohut	Donald Raymond
Ken Barry	Amir Ebadatiesfanahi	Yoonmi Ko	Thomas G. Ray
Jamie Béland	Sheila Ann Edwards	Rasha Kubba	Josée Cooke-Rivard
Rachel Beninger	John Ellis	Ananth Kumar	Ross C. Robinson
Graham Bennett	Mark Ellison	Michelle Lafreniere	Dorothy Rodziewicz
Doug Biesenthal	Victoria Eynthover	John Larsen	Vendula Romova
Biman Bhari	Tamby Fair	Simon Lau	Caroline Rooney
Mary-Anne Borris	Nicholas Filion	Brittany Lauton	Ofra Roskies
Eve Bossard	Hilary Fisher	Ian Lee	Nicole Rosove
Fraser Boulton	Donald Scott Forsyth	Jamie Lee	Marisa Rossi
Chantal Bourret	Yang Fu	Nahmi Lee	Keith Rupert
Edmund Bowkett, Sr.	Judith Ann Garlough	Émmanuelle Leftick	Brian Rutkay
Paul Bown	Gerald Gaugl	Francis Mayrand-Legault	Jeanne Ruzibiza
Alain Briand	Charles Gendron	Michael Patrick Shaw-Lepine	Anthony Sabad
Magaret Brown-Bury	Tarek Ghazzaoui	Sarah Leznoff	Andrew Saghbini
John Christopher Bryant	Ruxandra Gheorghe	Mary Lim	Paula Saliba
Douglas Campbell	Mundeep Gill	Brian Lingard	Sarah Saliba
Krystal Campeau	David Grenier	Norman Li	Marie-Élise Buchan-Samson
André Carrière	Jacques Guertin	Erin Yiran Lin Liu	Jonathan Séguin
Brian Carroll	Mohit Gupta	James Lohnes	Vijay Shirma
Jennifer Chau	Graham Gwozdecky	Nancy Lowry	Patrick Sheehan
André Chénier	Nazli Hadavand-Mirzaie	Joshua Lynch	Tushar Shukla
Yun Jung Choi	John Halpenny	John Madden	Michèle St. Germain
Colin James Churcher	Dorian Hamilton	Charlene Mahon	Frances Stewart
Steve Cochran	Heshan Hammoud	Benazir Marquez	Gillian Stewart
Dean Cole	Fatha Handule	Farishta Masjedee	John Stewart
Kris Constable	Wendy Hanna	Dave McBride	Thomas St. Julien
Harvey Cuddihy	Amy Hartigan	Brent McClelland	Ronald St. Martin
Matthew Cummins	Caitlin Hartigan	Jacqueline McDonald	Kara Stonehouse
Robert Cummins	Penny Hayes	Heather McLeod	Christian Storegaard
Kevin Cuo	Leslie Hay	Cherine Mekkaoui	Réjeanne Sylvester
Catherine Cusson-Garneau	Leslie Holloway	Greg Milley	Ben Tang
Stephen Dam	Monica Hornof	William "Bill" Monuk	Michiko Tanigushi
David Dao	Ting Huang	Robert Moore	Allen Taylor
Julia Dao	Shiraz Hussain	Lawrence Moran	Matthew Taylor
Andrew Della Penta	Muna Hussein	Rob More	Christopher Teron
Mariam Deria	Julia(Yulia) Iskra	Stephanie Mullin	Heather Teron
Patrick Desrochers	Philip Jago	Jessie Murray	Stéphanie Tessier
	Susan Janssen	Joe Murray	Kevin Thompson
	Nana Jobashvili	Calvin Rastislav Pacolak	Debra Tigner
	Praveen John	Gregory Pallas	Jennifer Tigner
	Joshua Jones	Kamo Panosian	Joe Toscas

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Maria Varlan
Jean Maurice-André Vigneault
Marlen Villalba
Jennifer Vineham
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Victoria Wagner
Kelly Wallace
Shuang Wang
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Allen Westland
Lawrence Wilcox
David Williamson
Wilson Wyman
Jacqueline Yang
James Min Yang
Junsong (Jenny) Ye
André Yelle
Abanti Zakaria
Jiayi Zhai

CANADA AVIATION MUSEUM

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Charles Baril
Dorothy Barker
David Batcock
Jessica Beaubien
Gerry Beauchamp
Doug Biesenthal
Dennis Bisson
Karen Blais
Edward Bolton
Ken Boyd
Trent Bradford
Zoé Brouzes
Frances Brown
Richard Brugger
Jacques Brunelle
Ken Burch
Dave Burt
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James Campanas
Andy Campbell
Don Campbell

Michael Cano
Ken Castle
Al Chapman
Reg Chappel
Alain Chouinard
Paul Church
Bill Clark
Jerry Clark
Louise Claxton
Glenn Cook
Chris Corby
Colleen Corby
John Corby
Breanna Corrigan
Donald Craig
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Kelsey Davidson
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Bob Donaldson
Austin Douglas
Pierre Drapeau
Claire Drapeau
John Duggan
Jessica Durepos
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and Vanier (Missionaries
with the Church of Jesus
Christ of Latter-Day Saints)
Mike Fletcher
David Fraser
Anant Gadia
Sally Gao
Marie Garbutt
Monique Geishardt
Wayne Giles
Harvey Gillespie
Ron Gould
Mourad Graidia
Alex Grayston
Alexandre Grenier
Connie Griffin
John Griffin
Seth Grossmith
Victor Haggart
David Hardy
Janice Henderson
Mark Heyendal
Russ Hicks

Hima Himawan
Ed Hogan
Andrew Hogg
Robert Holmgren
George Hopp
Bill Hough
Peter Houston
Harry Hulvershorn
Ron Hunt
Anna Ilienko
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James Laing
Jessie Laing
Claude Lalande
Gilles La Rochelle
Jenny Le Pan
Claude LeBlanc
Patrick Leclair
Ken Lee
Pierre Legault
Ed L'Heureux
Alex MacKinnon
Craig MacKinnon
Ian MacLean
Graham Mansell
Bryon Mask
Tyler Matthews
Jason McDonald
John McMurran
David McPhail
Bill McRae
Michel Mendoza Brand
Bob Mercier
Bob Merrick
Dave Merrick
Tom Miller
Murdo Murchison
Bob Murray
Wib Neal
Bjorn Nielsen

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Leo O'Donovan
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Katherine Riley
Alain Rioux
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Mike Roy
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Louis Tremblay
Saw Tun
Bill Upton
Sid van Dyck
Martin van Sickle
Alberto Villamil
Arthur Wahlroth
George White
Richard Wickens
Helen Yendall

Members

The Corporation's Membership Program has existed for 14 years, and numbers approximately 25,000 individuals in 5,600 households. This past year, Membership Program revenues were at their highest level in the program's history at \$236,000. Member visits continue to account for a substantial percentage of paid local visits by the general public to the Corporation's three museums, with a combined total of 107,988 visits by members. Members continue to support the museums through registration for various programs, purchases in the gift shops, word-of-mouth promotion and participation in focus groups and surveys.

Donors

The Corporation would like to thank the following individuals, corporations, organizations and foundations for their financial support.

Corporations and Institutions

Royal Canadian Air Force
Association Trust
(Canada Aviation Museum)
426 Squadron Association,
Eastern Ontario
(Canada Aviation Museum)
Imperial Oil Foundation
(Canada Science and
Technology Museum)

Annual Individual Gifts

The following individuals have
donated gifts of \$200 or more
during the year.

CANADA SCIENCE AND TECHNOLOGY MUSEUM

Gordon Baker
David Bathe
Walter Campbell
Alan Carson
Scott Darlington
Robert Evans
James Lewis
W. Mills
Douglas Morton
Scott Sabo
Edward Sacrey
Bryon Tomowich
Bill Wimperis

CANADA AVIATION MUSEUM

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Lieutenant-Colonel Joseph
Belanger
Maurice Bent
Derek Blatchford
William Burke
William F. Campbell
Kenneth Castle
George Chapman
Ross Clements
Brigadier General John Collins
Bruce Davies
John Darling
A. Drackley
Wilfrid Dugas
Daniel Farrell
Ian Firth
Daniel Fletcher
Major (Ret'd) Robert Flynn
David Fraser
Robert Glendinning
Leonard Harvey
Jody Houlahan
William O. Hough,
Warrant Officer
Adam Hunt

G. Hunter
Reid Hutchinson
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C. Johnstone
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James Kenney
William Kondra
Wyatt Laing
Alex Logan
Norbert Logan
Emile Major
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John McMeekin
Ian James McPherson
William McRae
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Barton Robinson
Dr. E.H. Salkeld
Massimo Santarossa
Rae Simpson
Grant Skene
George Skinner
Denis St-Pierre
Christopher J. Terry
Fred and Edna Terry
Austin Timmins
Jack Verduyn
Dr. Ronald Watts
J. R. Wiseman

CANADA AGRICULTURE MUSEUM

C. Harold Jackson
David R. Richeson
Ann Thompson

Major Gifts

The following individuals,
associations and foundations
have given over \$1,000 in
cumulative financial and in-kind
gifts over the years.

CANADA AGRICULTURE MUSEUM

Ann Thompson
George Weston Limited

CANADA AVIATION MUSEUM

Air Force Association
Ernst J. Anderson
A.J. Armstrong
Jean Paul Asselin
Valorie M. Austin
Lieutenant-Colonel (Ret'd) G.W.
Babbitt, R.C.N
William Bain
Dennis A. Bar Berree
Earl H. Barr
Allan W. Becker
M. J. Bent
Air Commodore Leonard J. Birchall
Aileen Bowyer
Robert Bradford
Peter J. Brennan
Adrian Brookes
Paul J. Brunelle
R. Buckland
A. Butterworth
Ken and Fiona Cameron,
in memory of Howard Fowler
General Bill Carr
Joseph D. Cheetham
R.A.W. Clayton
John W. Clifford
Brigadier General John Collins
Sterling Conrad
Alan R. Constant
F.T. Constant
M. Creagan
Paul Dalseg
H. Drover
Wilfrid J. Dugas
Air Marshal C.R. Dunlap
Roger Durocher
EDS Canada
Terry Edward, in memory of
Arthur Edwards (1918-2001)
J. R. Ellis
S. Ellis
D. Everett
Rae R. Farrell
R.W. Fassold
D.J. Floyd
Ed Foster
George A. Fuller
R. John Garrioch, C.D.
Robert K. Glendinning
R. Gordon
Sally Gouin, in memory of Air
Commodore Wilfrid Peter
Gouin, (1912-1993),
M.B.E., C.D., B. Eng., F.C.A.S.I.
Hans A. Graae
J.H. Grand
Greater Toronto Airports
Authority
Richard Grzeslo
Robert G. Halford
Ronald B. Hall
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Merv Harron
Derek A. Heath
John B. Higham
Robert D. Holden
Hope Aero Propeller and
Components Inc.
Harry and Helen Hope
Warrant Officer William O. Hough
Edwin Charles Hunt
Reid T. Hutchinson
Gerald F. Ireland
J.L.S. Enterprises
M. Johnson
G. Kearns
Fred J. Kee
James H. Kenney
Jim Kowalyk
Jim Laing
W.C.E. (Bill) Loftus, made on his
behalf by his many friends
and colleagues at Eurocopter
Canada Limited and the
Eurocopter Canada Project
Office
Norbert J. Logan
Robert C. MacFarlane
Ralph E. McBurney
James D. McKnight
John E. McMeekin
John McMurrin
William R. McRae
Robert Merrick
R.W. Moffatt
Malcom Morrison
John A. Murphy
NAV Canada
National Air Museums Society
Desmond J. Peters
Joseph Pope
James B. Prendergast, D.F.C.
Brigadier General R. Murray
Ramsbottom
John F. Riley
Michel Rossignol
E.H. Salkeld
Captain (Ret'd) Oscar
Scheuneman and Elve Scheuneman
John H. Simpson
George R. Skinner
Christopher J. and Victoria Terry
Fred and Edna Terry
The Senator Norman M.
Patterson Foundation
John C. Trethowan
D. Watson, in memory of
Mrs. M. Watson
N.A. Webb
J.R. Wiseman
Alec C. Woodley
W.B. Woollett
P. Yull

CANADA SCIENCE AND TECHNOLOGY MUSEUM

B. Ross Giles
Imperial Oil Foundation
David H. Page
University Health Network

**Planned Gifts
(Legacy Society Members)**

The following individuals have indicated that they have remembered the Corporation with a gift in their estate plans.

CANADA AVIATION MUSEUM

Anthony C. Baukham
Jody Houlahan
Roy Salter Jamieson
J.R.G. Leach
Michael C. Marta
Claude Roy
John H. Simpson
Tony and Helen Smyth
Christopher J. and Victoria Terry

Artifacts Donors**CANADA SCIENCE AND TECHNOLOGY MUSEUM (CORPORATE)**

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Ballard Power Systems Inc.
Bell Canada
Canadian Fire Fighters Museum
Canadian Space Agency
Canarie Inc.
CBC Radio News
Dalsa Semiconductor Corp.
Defence Research and Development Canada — Atlantic
DG Systems Ltd.
DY-4 Systems
Frontier College
Industry Canada (Program Integrity and Design)
Kingston Penitentiary Museum
Natural Resources Canada (Gravity and Geodetic Network)
NAVCAN
National Research Council
Royal Ontario Museum
Saint Mary's University, Department of Astronomy and Physics
United Steelworkers of America
University of Waterloo

CANADA SCIENCE AND TECHNOLOGY MUSEUM (INDIVIDUAL)

G. Bechtold
C. Brannigan
P. Calamai
R. Côté
R. Cottingham
Y. Desjardins
G. Drew
J. England
J. Gooding
C. Hardy
R. Laliberté
R. Lang
I. Leslie
M. Lockman
G. MacDonald
R. Malo
L. Marquis
T.J. Missio
Estate of L. Moyd
F. Neal
G. Neville
W.G. Pryde
H. Schult
E. Sebert
L. Smith
M. Townsend
M. Umberg
J. Van Schouwen
M. Veillette
W. Wight
R. Woolaver

CANADA AVIATION MUSEUM (CORPORATE)

Air Canada

CANADA AVIATION MUSEUM (INDIVIDUAL)

J.M. Bradley
G. Brixhe
S. Brocklebank
J.L. Carmichael
P. Carter
T. Castle
F. Cousineau
L. Dunham
W. Giles
W. Halcro
E. Hollington
M.E. Holloway
A. and B. Isenman
C. Ramsay
R.A. Saunders
A.B. Searle
S. Sheldrake
A. Vincent
A.E.K. Watts

CANADA AGRICULTURE MUSEUM (INDIVIDUAL)

T. Anstey
M. Pick
H. Stevens

Corporate Sponsors

The Corporation continues to work with its corporate sponsors in unique ways which address their business and marketing objectives. The Corporation would like to thank the following corporations for their generous sponsorship support.

CANADA SCIENCE AND TECHNOLOGY MUSEUM CORPORATION

Major Sponsor

Desjardins Online Solutions

CANADA SCIENCE AND TECHNOLOGY MUSEUM

Title Sponsor

Nortel Networks — **Nortel Networks Connexions** exhibition

Contributing Sponsor

Ignite Studios — **Nortel Networks Connexions** exhibition

CANADA AVIATION MUSEUM

Major Sponsors

Pratt & Whitney Canada — The Next Generation Programs

CANADA AGRICULTURE MUSEUM

Food for Health exhibition (opens 2006)

Presenting Sponsor

Canadian Institutes of Health Research —

Major Sponsors (in alphabetical order)

Agriculture and Agri-Food Canada

Canadian Food Inspection Agency

Canadian Partnership for Consumer Food Safety Education

Health Canada

Supporting Sponsors (in alphabetical order)

Canadian Agri-Food Research Council

Canadian Bacterial Diseases Network

Genome Prairie

National Research Council — Institute for Biological Sciences

CANADA AGRICULTURE MUSEUM

Contributing Sponsor

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