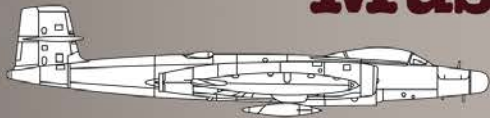


Musée de l'aérospatiale du Québec

Québec Aerospace Museum



Québec Aerospace Museum at Saint-Hubert

Corporate Brochure 2021 - Complete Presentation

A Unique Quebec Project

The Québec Aerospace Museum (QAM) is a non-profit organization established in August 2018 with the mission of preserving and promoting aerospace heritage in all its forms.

In this capacity, the society is now developing plans to establish an innovative aviation and space museum at Saint-Hubert Airport, located 12 km east of downtown Montreal, Quebec.

The Montreal metropolitan area is home to one of the world's leading aeronautical manufacturing and inno-

vation hubs, with five world-leading aerospace companies having major manufacturing and R&D centres here – Bombardier Aerospace, Airbus, Pratt & Whitney Canada, Bell Helicopter, CAE – and Montreal also the headquarters of Air Canada and the Canadian Space Agency.

However, apart from the Montreal Aviation Museum in Sainte-Anne-de-Bellevue – a QAM partner – there are no major air and space museums in the region.



The three founding members of the Québec Aerospace Museum, from left to right: Pierre Gillard (Director of Operations and Secretary), Gilbert McCauley (President) and Éric Tremblay (Treasurer) (Guy Puthomme photo).

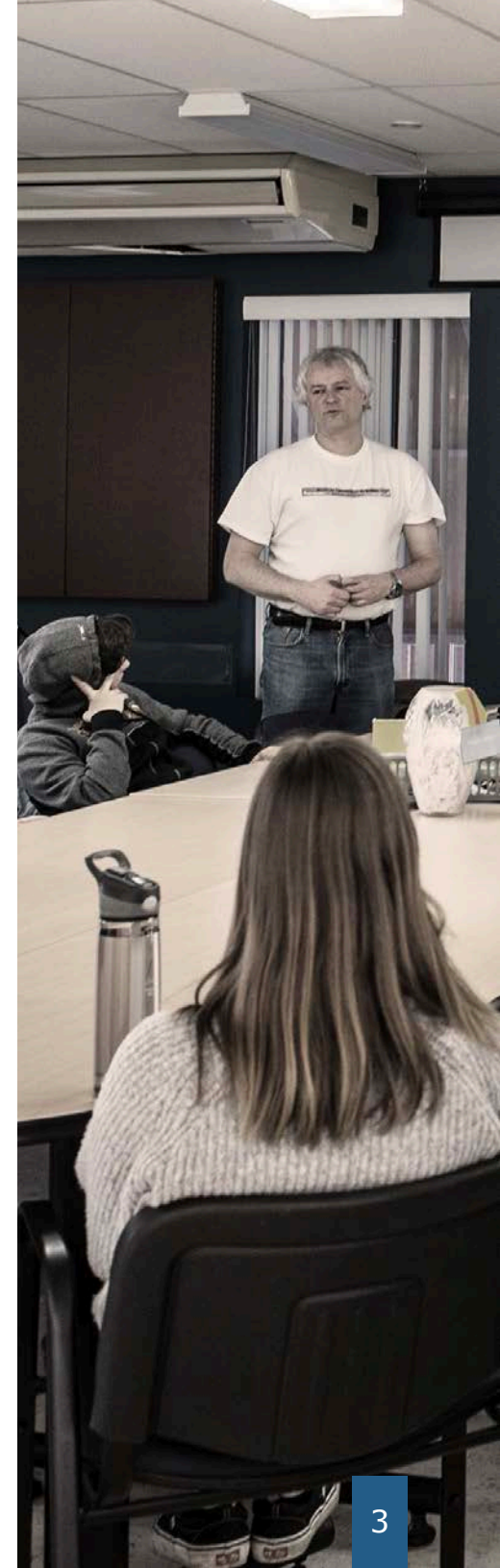
An Original Vision

Achieving the QAM's mission involves a number of objectives, including positioning the Quebec aerospace industry as a central theme for all of the Museum's heritage, educational and community outreach activities including those designed to promote aviation and space to young people and the general public.

The Québec Aerospace Museum will also provide a direct return to the com-

munity with value-added programs that will provide many social, academic and economic links to Quebec's aerospace ecosystem.

In addition, the QAM has a specific mandate to enhance educational and career opportunities for women, First Nations and Inuit throughout the aviation and aerospace industry of Quebec and Canada.



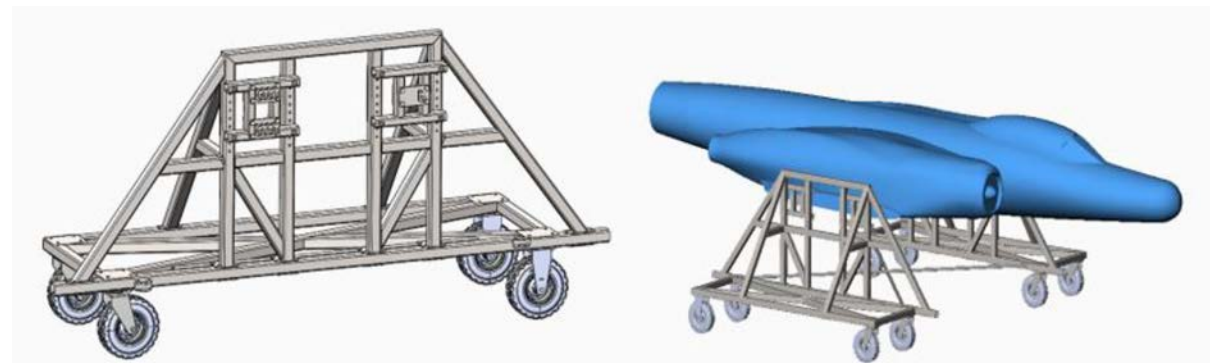


Educational Integration

Education is an integral part of QAM's vision. Schools and universities will be regularly invited to actively participate in student projects that enhance student education and the development of the museum. This includes aerospace-related institutions such as the École des métiers de l'aérospatiale de Montréal (ÉMAM), the École nationale d'aérotechnique (ÉNA) and the École de technologie supérieure (ÉTS), as well as other educational institutions offering related training, such as Col-

ège Montmorency which has a well-regarded museology program.

The first student project saw two teams of mechanical engineering students at ÉTS design a jig to support QAM's Avro CF-100 to facilitate structural repairs and reinstallation of the landing gear on this rare jet fighter. This first initiative perfectly illustrates the vision of integrating the educational community into QAM projects.



Illustrations of the jigs designed by mechanical engineering students to support the Avro CF-100 Canuck being restored by QAM volunteers (ÉTS).

Community Integration

QAM officials see an important role for the Museum developing educational programs that support the social reintegration of people living on the margins of our society. This could include practical training in aeronautical technology while working on QAM aircraft.

There are many marginalized people living in our community that cannot easily enroll in traditional educational programs available in Quebec. QAM-

plans to develop alternative educational pathways that could eventually lead young people to a career in the aviation industry at a later date.

QAM has already been approached by institutions working with student dropouts who are inspired to work on aircraft at the museum, but the museum cannot start a program until it has adequate facilities. The demand of an education facility already exists and must be assessed.



In 2019, QAM organized a visit to Canadian Space Agency for young people affiliated with the Jonathan's House youth centre in Longueuil (Pierre Gillard photo).



Filling an Important Gap

There is an important gap that needs to be filled when it comes to the promotion of aerospace trades in Quebec between the virtual promotion of careers by industry organizations like Aéro Montréal and CAMAQ and the youth outreach programs conducted by technical schools.

Workforce studies indicate that young people start to consider careers in aviation when they are teenagers and it's important for the aviation industry to

engage young people as early as possible.

Aviation museums around the world already play an important role promoting aviation careers and STEM education and QAM can provide this missing link in Quebec. This could be achieved, for example, by creating interactive, educational and fun activities that arouse the interest of younger generations in flying and the aerospace industry.



The Smithsonian National Air and Space Museum in Washington DC is an example to follow and a source of inspiration for the QAM (Pierre Gillard photo).

A Major Attraction

The greater Montreal region is one of the world's major aerospace centers, and the establishment of local air and space museum has the potential to become a significant tourist attraction. Here are some well-known international museum attendance figures (before the COVID crisis):

- **Museum of Flight (Seattle, WA):** 500,000 visitors per year.
- **Imperial War Museum (Duxford):** 400,000 visitors per year.
- **Musée de l'Air et de l'Espace (Le Bourget):** 300,000 visitors per year.
- **Aérosopia (Toulouse):** more than 200,000 visitors per year.

Just imagine the direct and indirect returns to the Longueuil region of an air and space museum at Saint-Hubert Airport.

Of course, other major aerospace centres like Seattle and Toulouse have had a head start, but a Montreal museum with a similar aerospace industry focus will almost certainly attract many local and international visitors over a 10- to 20-year development phase.



Air and Space museums are very popular with tourists and the general public. Pictured is the Air Mobility Command Museum at Dover AFB, Delaware (AMC Museum photo).



Community Engagement

On the community and social level, the Museum's recent achievements include organizing community and student visits to local aerospace businesses and Canadian Space Agency, the École nationale d'aérotechnique (ÉNA) and St-Hubert Airport; Orga-

nizing an "Aerospace Heritage Day" in Saint-Hubert/Longueuil in October 2019 (in conjunction with the City of Longueuil), and regular museum participation in the numerous "Open Days" at ÉNA as well as the Aerosalon held at Saint-Hubert Airport in June 2019.



The fuselage of the Avro CF-100 Canuck 100760 being restored by QAM is displayed alongside the Douglas DC-3 C-FDTD of the Plane Savers team during the Aerosalon in June 2019 at Saint-Hubert airport (Pierre Gillard photo).

Heritage Preserved

In terms of heritage, aircraft are the most visible aspect of the museum's collection mandate. Various collection activities have already begun, including the partial restoration of an Avro CF-100 Canuck jet fighter, that once served with the Royal Canadian Air Force and later as a flying testbed for Pratt and Whitney Canada. This rare aircraft is on loan to QAM from the Canada War Museum in Ottawa.

The École nationale d'aérotechnique (ÉNA) has also been open to the donating to QAM various obsolete aircraft they plan to retire from their training

programs, in addition to various aircraft parts, avionics equipment, and aviation instruments.

Research and discussions are also underway to obtain a Sikorsky CH-124 Sea King maritime helicopter, built in Longueuil that was recently retired from the Royal Canadian Air Force, as well as an Airbus Helicopters SA318C Alouette II helicopter used by Hydro-Québec to support the development of the important James Bay hydroelectric project in northern Quebec. These aircraft, and others helped shape Quebec aviation history.



The restoration of a Fairchild 82 bushplane built in Longueuil in the early 1930 is also part of the Museum's development plans (QAM archives).

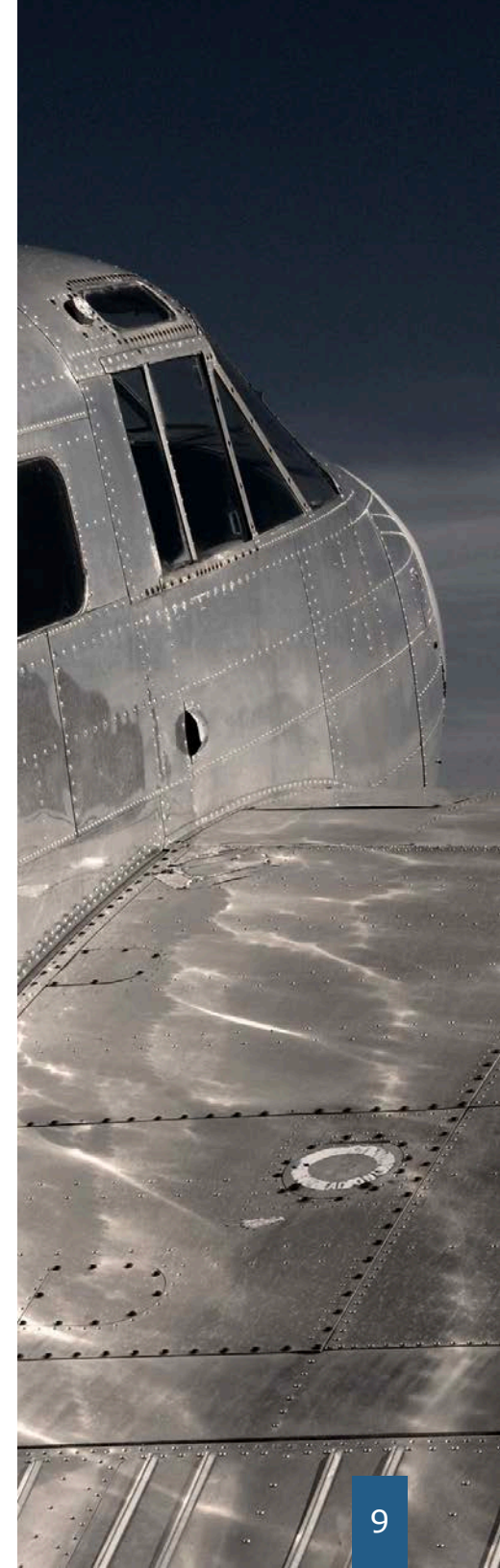


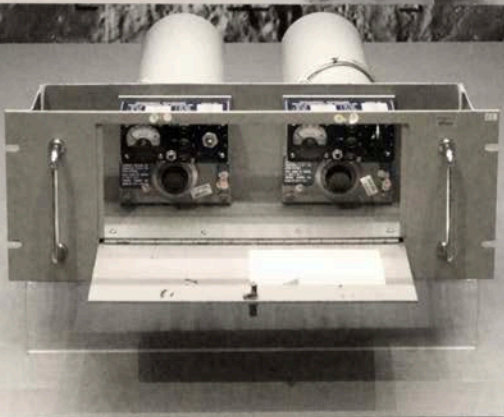
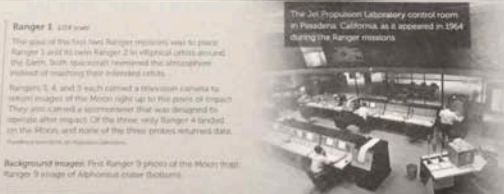
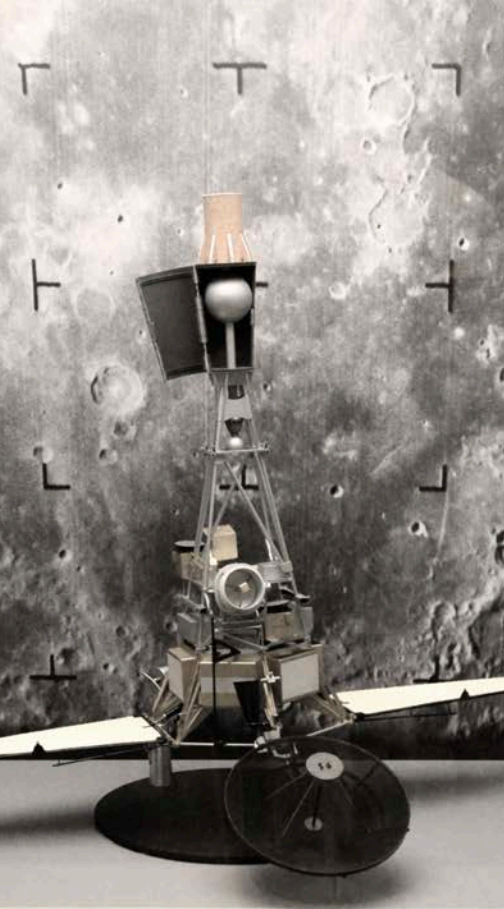
Exhibit Strategy

The founders of the QAM have visited line at Longueuil during the Second World War, and functional displays of landing gear and avionics systems. The museum believes that aircraft and artifacts must be preserved and displayed attractive, educational and even, in some cases, fun way that leverages the latest interactive technologies.

The Montreal area will well-known as a world leader in aircraft manufacturing, flight simulation and aircraft systems development. The preliminary exhibit design for the Museum includes a full motion full flight simulator, a partial replica of Fairchild Aircraft of Canada's Bristol Bolingbroke bomber production

line at Longueuil during the Second World War, and functional displays of landing gear and avionics systems.

Space will also be highlighted with the construction of replicas of Canadian satellites and the creation of a space lab where visitors can perform various experiments. To this end, close collaboration with the Cosmodôme in Laval should be initiated.



To provide a high-quality visitor experience, the exhibit strategy will see the close integration of artifacts with interactive communications technologies to maximize engagement (Pierre Gillard photo).

Full Member of the Industry

The Quebec Aerospace Museum plans to become a full member of the Quebec and Canadian aerospace industry and is already attracting leaders and volunteers from across the industry.

This will require greater integration and participation by the Museum in the activities of associations and groups across the aviation and aerospace ecosystem and Aéro Montréal cluster.

The QAM is already a member of the Canadian Aeronautical Preservation Association (CAPA) which represents all aviation museums in Canada and the Canadian Aviation Historical Society (CAHS), which is Canada's oldest aviation heritage organization. In 2020, the MAQ entered into a collaborative partnership with the Montreal Aviation Museum located in Sainte-Anne-de-Bellevue that will support the growth of both organizations. The museum is also a member of Volunteer Canada.



Flight simulation is an important part of the aerospace industry in Quebec. The QAM must reserve the place it deserves (Pierre Gillard photo).



Growing the Business

While the Québec Aerospace Museum does not yet have a physical exhibition space, it is building relationships with all the stakeholders required to achieve this goal. For example, QAM, has been asked to join the team proposing the establishment of an aerospace innovation and excellence centre in the Montreal area that will include an «interactive and historical aviation center».

Currently, one of the Museum's top priorities is to increase its visibility. To this end, it is advocating that the an-

nual Aerospace Heritage Day held in collaboration with the City of Longueuil be expanded. Other mainstream activities, such as "Introduction to Aerospace Days," will be organized once the Covid-19 pandemic has passed.

Further updates to the QAM website are also planned to make it more visually attractive and interactive. The digital communications strategy also calls for the production of regular podcasts highlight the aviation history of Quebec and its pioneers.



The Canadian Space Agency booth attracted interest from visitors on Aerospace Heritage Day (Jean-Charles Hubert photo).

Donations of Aircraft and Equipment

In recent months, the museum has received several important donations including avionics equipment, model airplanes and helicopters, books and magazine collections, aircraft parts, manufacturers' plates and other objects – all of which need to be housed in secure storage facilities as they await future exhibit.

In mid-2021 QAM expects to receive the donation of several aircraft, including a Roland Duruble RD02A Edelweiss

one-of-a-kind, amateur-built light aircraft built in British Columbia, as well as a regional transport aircraft.

These aircraft will be stored outside until such time as the Museum has the appropriate hangar infrastructure to house them. However, a team of volunteer technicians from the QAM will ensure they receive regular maintenance to ensure their long-term preservation.



The Roland Duruble RD02A Edelweiss aircraft is unique in the world. It was built in 1984 by Mr. Kenneth J. Taylor in Delta, BC (Antoine Moulin Photo).



In « Solutions » Mode

At present, the Museum is benefiting from partnerships with No 438 «City of Montreal» Tactical Helicopter Squadron at CFB Saint-Hubert which provides temporary outdoor storage space and with ÉNA, which has provided indoor storage space on an occasional basis.

In addition, the management of Saint-Hubert airport (DASH-L) has expressed positive interest in providing the museum with temporary use of two sites on the property for aircraft storage until such time as the museum obtains or builds suitable buildings to house the collection. The Museum has

also received support from Nolinor, which hosts the head office of QAM at its H18 hangar facility and the Chrono Aviation FBO has shown itself ready to accommodate a few planes in transit to the Museum collection.

When it comes to storage, the Museum is also supported by its growing membership which is personally storing many other items in the collection. Discussions are underway with a number of aerospace companies to store equipment at various sites around the Montreal area and rental storage remains another option.



The storage of certain artifacts owned by QAM requires real expertise (Pierre Gillard photo).

Infrastructure Development

As the QAM's collections and activities develop, appropriate infrastructure will have to be rented or built. In order to accommodate these to the growth of the Museum, four phases have been identified, as follows:

PHASE 1 : Use of existing infrastructure at Saint-Hubert Airport or in the immediate vicinity to store aircraft and equipment.

PHASE 2 : Construction or rental of a hangar to restore small and me-

dium-sized aircraft as well as establish a permanent exhibition/educational space, offices and on-site storage.

PHASE 3 : Expansion of the facilities by adding a larger hangar to accommodate larger aircraft as well as having a covered exhibition space to display larger equipment.

PHASE 4 : Construction of a multi-functional building to accommodate the public in ideal conditions.



The Kelowna Center of Excellence in British Columbia will have a «museum» space (KF Aerospace image).



Health and Safety

The safety of our members, who are all volunteers, is without compromise. To this end, the QAM makes regular payments to the Commission des normes, de l'équité, de la santé et de la sécurité du travail (CNESST), which represents regular business expense.

In addition, the QAM has its own trainers authorized to give general training and also specialized health and safety

at work training such as Workplace Hazardous Materials Information System (WHMIS).

First aid training is also provided to volunteers.

Finally, the QAM has its own first aid resources and basic emergency equipment.



Workplace health and safety training is provided internally for the benefit of QAM members (Pierre Ménard photo).



Leaders, Jean Riffou and Pierre Gillard, took a first aid course organized by CNESST (QAM photo).

Fundraising

Fundraising for the Québec Aerospace Museum is at crucial point in its development, with the museum actively working to tap government and private funds.

Government funding is available to non-profit museums, but this is conditional on a Museum having one or more permanent employees as well as an exhibition space open to the public on a permanent basis.



The establishment of a museum that showcases the aerospace industry of Quebec and Canada will require financial support from governments to achieve its full potential (Pierre Gillard photo).

The museum must therefore already be open to the public before it can be officially recognized as a museum eligible for public funding!

In the current situation, the QAM can therefore only count on private funding, as well as the discretionary contributions of certain government deputies and ministers who want to support the early stage develop of the organization. Donations, and cash advances from members, have been essential to allow the organization to grow during this start-up period.

The QAM is recognised by the Canada Revenue Agency (CRA) as a registered non-profit charity, which means it can issue tax-deductable receipts for all donations.



Soaring to the Future

The Museum's Board of Directors is aware of the current economic challenges and understands that it must work hard to maximizing the contributions it receives from industry and private donors.

All aviation museums require the broad-based financial support of the

corporate community and government bodies, as well as the generosity of visitors, members and private donors to thrive.

QAM is committed to being fiscally responsible and transparent when it comes to all museum activities and operations as today's public expects.



The restoration of the CF-100 #100760 remains a top priority for the Museum (Pierre Gillard photo).

Support Sought

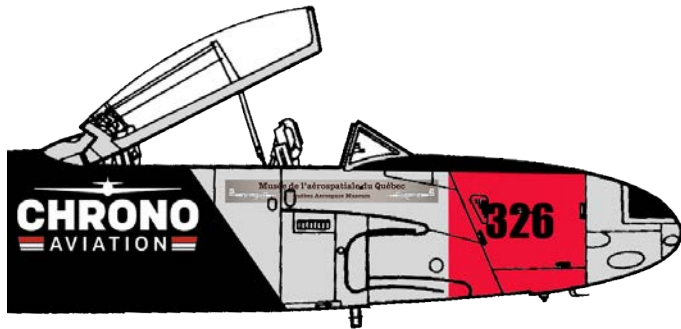
The founders of the Québec Aerospace Museum are asking the aerospace industry, corporate community and local authorities to contribute generously to a fundraising campaign focused on the realization of Phase 1 and the launch of Phase 2 of the QAM infrastructure plan, as well as to its community and heritage engagement programs.

The support can be provided in several forms:

- Corporate financing to cover operating costs.
- Financing of specific projects (development of Phase 1 storage areas, Phase 2 hangar, aircraft restoration, or others).
- Loan of premises, hangar spaces, exhibition spaces or storage spaces.
- Donation of material, equipment or tools.
- Recruitment of volunteers to support general or specific projects.
- Secondment of management staff to support QAM objectives.

Of course, all contributions will be highlighted by QAM in its membership communications and media relations activities.

The Museum would be happy to provide more specific information regarding anything referenced in this presentation and has detailed briefing documents available, on request, describing all QAM current projects. Please do not hesitate to contact us!



Example of a mobile Canadair CT-133 Silver Star education display to be developed with the support of Chrono Aviation in Saint-Hubert (Pierre Gillard image).



Collections

*Avro CF-100 Canuck Mk. 5D #100760 Pratt & Whitney Canada JT15D Flying Testbed
(In collaboration with the Canadian War Museum, Ottawa, ON)*

Avionics, blueprints and plans, instruments, books and magazines, technical manuals, models, ejection seats, etc.



QAM's collection will grow over time with the donation of aircraft, artifacts and money from individuals, businesses and other organizations. We are currently seeking, for example, aircraft manufacturer's data plates, old avionics equipment and model aircraft, such as this magnificent series of Canadian aircraft models made by Yves-Fournier (Pierre Gillard photos).

Achievements

Partnerships :

Musée de l'aviation de Montréal — *Sainte-Anne-de-Bellevue, QC*

Events and exhibitions :

January till June 2021 — *Saint-Hubert* : « *Aviation in Canada* » showcase at ÉNA

16-02-2020 — *Saint-Hubert* : *Open Day* at ÉNA

17-11-2019 — *Saint-Hubert* : *Open Day* at ÉNA

28-09-2019 — *Saint-Hubert, QC* : *Aerospace Heritage Day* (jointly organized with the City of Longueuil)

06/07-09-2019 — *Saint-Hubert, QC* : *Open Days and Recruitment* at Chrono Aviation

24-08-2019 — *Sainte-Anne-de-Bellevue, QC* : *Family Day* at the Montreal Aviation Museum

01/02-06-2019 — *Saint-Hubert* : *Aérosalon*

17-02-2019 — *Saint-Hubert* : *Open Day* at ÉNA

11-11-2018 — *Saint-Hubert* : *Open Day* at ÉNA



QAM participated in the “Family Day” at the Montreal Aviation Museum in Sainte-Anne-de-Bellevue on August 24, 2019 (Pierre Gillard photo).





Contact Us!

Gilbert McCAULEY, *President* : gilbert@maq-qam.ca

Marc DONATO, *Vice-President* : marc@maq-qam.ca

Éric TREMBLAY, *Treasurer* : eric@maq-qam.ca

Robert ST-PIERRE, *Director* : robert@maq-qam.ca

Pierre GILLARD, *Secretary/Director of Operations* : pierre@maq-qam.ca

André ALLARD, *Director of Communication* : andre@maq-qam.ca

Janot DESGRENIERS, *Director of Administrative Affairs* : janot.desgreniers@maq-qam.ca

Benoît de MULDER, *Director of Archives and Documentation* : benoit@maq-qam.ca

Jean RIFFOU, *Head of Health and Safety* : sst@maq-qam.ca

Marc ÉMOND, *Exhibition Coordonnator* : marc.emond@maq-qam.ca

Pierre MÉNARD, *Webmaster* : pierrem@maq-qam.ca

6575 chemin de la Savane, Saint-Hubert, (Qc) J3Y 8Y9 Canada



Some members of the QAM team during a presentation at the ÉNA (Philippe Colin photo).

The main museums

Canada :

Canadian Air and Space Museum - Musée de l'aviation et de l'espace du Canada - Ottawa, ON

China :

China Aviation Museum - Datangshan

United States of America :

Museum of Flight - Seattle, WA

Pima Air & Space Museum - Tucson, AZ

Smithsonian - National Air & Space Museum - Washington DC

Smithsonian - National Air & Space Museum - Steven F. Udvar-Hazy Center - Dulles, VA

France:

Aéroparc - Toulouse.

Espace Air Passion - Angers.

Musée de l'Air et de l'Espace - Le Bourget.

Poland :

Polish Aviation Museum - Muzeum Lotnictwa Polskiego w Krakowie - Cracovie

United Kingdom :

Imperial War Museum - Duxford

Yorkshire Air Museum - Elvington

Russia :

RKK Energia Museum - Музей РКК Энергия - Moscou

Musée central des forces aériennes de la Fédération de Russie - Центральный музей Военно-воздушных сил - Monino



www.maq-qam.ca



Uncredited pictures : Pierre Gillard et Louise Gince

Translation : Kenneth J. Swartz

Layout : Pierre Gillard & Pierre Ménard, Longueuil, May 2021