



L'AEROSPATIALE : UNE INDUSTRIE PHARE POUR MONTREAL, LE  
QUEBEC ET LE CANADA

AEROSPACE: A FLAGSHIP INDUSTRY FOR MONTREAL, QUEBEC  
AND CANADA

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CAE

Le Cercle canadien - Canadian Club

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Merci M. Godber,

Bon après-midi à tous,

Good afternoon ladies and gentlemen

Tout d'abord, j'aimerais remercier le Cercle canadien pour l'invitation de vous adresser la parole aujourd'hui.

Ceux d'entre vous qui me connaissent savent à quel point l'industrie aéronautique me passionne et, plus particulièrement, CAE.

Notre industrie se distingue par la passion qu'elle soulève chez ses employés et le public en général. Chez CAE par exemple, lorsque l'on reproduit l'expérience de vol par la réalité virtuelle et la simulation, c'est toujours étonnant, c'est presque magique et c'est une grande source d'inspiration pour nos employés.

Nous sommes une industrie phare pour Montréal, pour le Québec et pour le Canada. Les entreprises comme CAE sont déterminées à être les meilleures dans le monde.

CAE is truly a Canadian jewel, one of our very few high tech companies that is a global leader at what it does.

I realize that some of you may not know much about CAE, except that we're involved in simulation. So, let me give you a bit of background.

The company itself began shortly after the war with a workforce of 18 people in an aircraft hangar on the South Shore in Saint Hubert. Fast forward to today, we have more than 8,000 employees, half of whom are here in Montreal.

In 1947, shortly after launching CAE, our founder, Ken Patrick --an officer who had just come back from the war-- won his first simulator contract from the Canadian Defence Forces; and the one that you see on the screen was for the CF-100 Canuck interceptor, a plane developed and manufactured by Avro Canada in 1952.

Eight years later CAE won a milestone contract for the CF-104 Starfighter – which history buffs will know was the replacement for the Avro Arrow – and that gave us entry into the global market with sales to several NATO allies.

In subsequent years CAE became the global champion of flight simulation – for both civil and military aircraft.

Today, I'm very proud to tell you that the majority of commercial pilots flying around the world are trained on simulators designed and built right here in Montreal. As a matter of fact, we've delivered over 2,000 simulators and training devices around the world, which is the lion share of our industry.

Our simulation devices today are so sophisticated, so realistic in how they perform that the first time a pilot flies in a commercial aircraft is with passengers like you and me in the back as fare paying customers. This is approved by regulators such as Transport Canada and the FAA because the pilots' experience in our simulators is so rigorous and authentic that they sometimes forget it's a simulation. They're in fact put through scenarios in a simulator that you would certainly never want to experience in actual flight.

Our technology is software – between 5 and 10 million lines of code in each simulator that perform tricks almost like magic – motion systems that make you believe you are banking and turning in the air or rolling down the runway. You can even feel the bumps as the airplane's tires pass over cracks in the tarmac.

Our visual systems can replicate flying through dense clouds and thunderstorms, coupled with turbulence and lightning flashes, as well as the precise terrain of over 250 airports around the world.

Our military simulators are even more sophisticated for the simple reason that military pilots fly missions in concert with each other and often when people may be shooting at them. Our objective is to prepare them well in order to make sure that they come back safely from their missions.

CAE is of course part of a much bigger aerospace story here in Montreal. As a matter of fact, aerospace is a Canadian flagship around the world.

Chaque seconde, un aéronef décolle grâce à son moteur fabriqué ici à Longueuil, par Pratt and Whitney Canada. Héroux-Devtek fabrique maintenant des systèmes de trains d'atterrissage pour les jets de Bombardier, Boeing, Dassault et Embraer, en plus des aéronefs militaires de Sikorsky, Northrop Grumman et Lockheed. Pensez-y : l'entreprise a été fondée en 1942 à Longueuil sous le nom « Héroux Machine Parts » et à l'époque elle se spécialisait dans l'usinage de composants d'aéronefs.

En 1969, moins de 30 ans plus tard, Héroux a fait partie de la grande aventure sur la Lune, en fabriquant le train d'atterrissage pour le module lunaire d'Apollo, et, grâce au travail acharné de son PDG Gilles Labbé, elle produira bientôt les systèmes de train d'atterrissage pour le nouveau Boeing 777x.

Going back in time, Guglielmo Marconi founded Marconi's Wireless Telegraph Company of Canada in 1903 --a company that a lot of us will remember because it is such an iconic brand. Today, after many mergers and acquisitions, we know the company as Esterline CMC Electronics headquartered in Saint-Laurent, and it delivers innovative cockpit systems integration and avionics solutions to its customers worldwide.

Up in Mirabel, Bell Helicopter Textron makes helicopters like the Bell 412, used by commercial operators but also by the oil industry, the military and law enforcement worldwide.

Et on ne peut parler d'aérospatiale sans parler de Bombardier qui est au troisième rang des fabricants d'avions civils dans le monde entier.

En 1984, après avoir obtenu mon diplôme de l'École Polytechnique, j'ai décroché mon premier emploi chez Canadair, qui devint Bombardier deux ans plus tard. J'ai eu la chance de réaliser mon rêve : de travailler dans le secteur de l'aérospatiale et concevoir des avions. C'était une aventure merveilleuse, pas seulement pour moi, mais pour des milliers d'autres qui ont gradué après moi. Grâce à la vision de Laurent Beaudoin, l'entreprise est maintenant un chef de file mondial. Comme il le dit si bien lui-même: un entrepreneur voit des occasions là où les autres ne voient que des problèmes !

Avec ses 38 000 employés à travers le monde, Bombardier Aéronautique est un joueur clé dans notre industrie. En date d'aujourd'hui, Bombardier a livré 1,925 avions régionaux et appareils amphibies. Ses employés ont construit plus de 2 000 avions d'affaires Challenger et Global. Tous ces avions sont assemblés au Canada, la grande majorité ici à Montréal. En tout, l'entreprise a lancé 31 nouveaux programmes depuis 1989, certainement un record dans notre industrie.

Et on sait que Bombardier ne s'assoit jamais sur ses lauriers : elle conçoit et fabrique maintenant un tout nouvel avion, la C Series, qui offre une consommation de carburant très avantageuse et une réduction inégalée de l'empreinte environnementale.

But it is not just the companies whose names are familiar to you. Montreal has also more than 200 small and medium-sized firms who make components and parts and provide services to major manufacturers. Their success is vital to our success.

Our industry as a whole has 43,500 employees in Quebec and 85,000 employees directly involved across the country and more than 700,000 Canadians whose work is directly related to our industry. And that's without counting international organizations like IATA and ICAO that are based here in Montreal and that add great credibility to our city as a key aerospace player. Just in Montreal, 1 employee out of every 93 works in the aerospace industry –one in 93; this is twice more than in France and 2.5 times more than in the U.S.

Total revenues for Canada are valued at \$42B, of which 80% is derived from exports. And Montreal captures 55% of those revenues.

This past year, CAE itself has contributed \$340M in the local economy; that includes subcontractors, fees to accountants, lawyers, HR professionals and many more. As I look around the room, I know that many of you are here today, and I thank you for it.

Jobs in our sector are well paid; 40% higher than the average in other industries. Our average salary at CAE is \$81,000 compared to the Quebec average of \$44,300. And our employees, our suppliers and our clients invest in the local economy.

We also play a major role in Montreal's community life. Employees in the aerospace sector here in Montreal give more than \$6 million to Centraide alone every year. Our employees are volunteers: they coach soccer and hockey teams, they support science projects at schools and universities, and they give time to non-profit organizations. I am very proud to say that CAE, as one example, has a team of about 100 participants for the Enbridge Ride to Conquer Cancer for the 3rd year in a row. Last year, our team raised \$282,000 for that cause.

In my view, the two most vital ingredients for the success of any company are vision and people.

At CAE, our vision is simple: It is to be the partner of choice for customers operating in complex, mission-critical environments by providing what we do best, the most innovative modeling and simulation-based solutions to enhance safety and improve efficiency.

All the U.S. military services, including the U.S. Air Force, Navy, Army, Marine Corps and Special Forces award us contracts for this very reason. We focus on our customers and provide them with the most innovative technologies and services. As an example, we are the U.S. Navy's prime contractor responsible for developing MH-60 Seahawk simulators used for training pilots, co-pilots and rear crew operators.

For the U.S. Air Force, we provide aircrew training for the KC-135 tanker pilots and refueling boom operators, and we are now delivering academic, simulator, and actual live training to all the U.S. Air Force Predator and Reaper Unmanned Aerial Vehicle aircrews. Defence forces in the U.S. and around the world trust CAE's expertise, our focus, and experience in simulation and training, which helps them maintain mission readiness and reduce costs.

And closer to home, I am very proud of the fact that we have a major contract with the Canadian Forces where we are responsible for the overall aircrew training capability for the Chinook and Hercules aircraft and we play a key role in preparing our Canadian Forces for mission success. This program is actually a model for the international defence market in demonstrating the benefits and efficiencies that a training systems integrator such as CAE can deliver.

As well, another great example is the integrated training facility we are building in Brunei. The CAE Brunei multi-purpose training centre includes the development of the region's largest helicopter simulator training facilities for the Sikorsky S-92 and S-70i Black Hawk helicopters. That centre will also offer emergency and crisis management training – which is testimony to our diversification. In fact, the centre will be the centrepiece for the next ASEAN wide disaster readiness exercise.

We can provide the most innovative modeling and simulation-based solutions and have become a leading edge, high-tech company thanks primarily to the Research & Development we do right here in Montreal. We've invested in partnership with the federal and provincial governments more than \$1B in R&D over the past 10 years. This partnership is essential if we expect to maintain a level-playing field with our competition.

We win contracts for one reason. Those who contract us for our products and our training services believe that we are the best to help train their pilots to provide safe, reliable service to their passengers.

We sell to more than 130 civil airlines, training centres and Original Equipment Manufacturers around the world with a roster of clients that is the envy of our competitors.

Here at home, Air Canada is one of our longstanding customers and partners. I am very happy that Calin Rovinescu is with us today at the head table. We have a 25-year relationship with Air Canada. We have sold the airline 15 simulators --the latest two were Boeing 787 simulators, one was delivered last year and the other will be later this year, as Air Canada has just received its first 787 aircraft a couple of weeks ago. And for the past 7 years, we have also been operating Air Canada's training centres in Toronto and Vancouver.

I'd like to take this opportunity to congratulate Calin, who has just been elected Chairman of IATA, the association which represents 240 airlines across the globe. This is a very prestigious nomination and proof of Calin's hard work and commitment to our industry.

Today, CAE is much more than a manufacturer of civil flight simulators. Even though we remain the undisputed market leader with more than 70% market share, our civil simulators actually make up only 20% of our revenues. We are now a major training provider and train more than 120,000 aircrews every year! Our training network spans the globe with a total of 60 civil training locations, either 100% owned or in joint venture with airlines.

In Dubai for example, where we train more than 10,000 pilots a year, we have a 13-simulator centre with our partner Emirates and we just opened a second centre. Another example is China where we operate one of the largest centres with our partner China Southern; it is equipped with 24 simulators and more than 20,000 pilots training there every year. In some instances - China being a prime example - joint ventures are an essential pre-requisite for market access.

In total we have more than 30 long-term training agreements and joint ventures with civil airlines and aircraft operators around the world.

We've also leveraged our expertise in modeling and simulation, our core competency, to diversify our offering beyond aviation. From a standing start five years ago, we are today the world leader in simulation technology for healthcare. More than 8,000 of our healthcare simulators are being used today in medical schools, nursing schools and hospitals to allow doctors and nurses to practice safely before doing the same procedures for real, on people like you and me.

I am very proud of the societal benefit of our simulators. And I tell our employees that, directly or indirectly the work that they do helps ensure the safety of families, whether they find themselves in an airplane or in an operating room.

It is Thomas Edison who once said that "Vision without execution is hallucination"! I have given you some sense of the vision that we have at CAE and what it is that enabled us to be the best at what we do. But to execute or implement a clear vision, you need people and a committed team effort and that's the real key to our global success.

The story I am always most proud to tell is one of performance by our employees. We offer great employment possibilities to people who want to work here and to those who enjoy the experience of living outside Canada. I am sure many of you know the expression: "Join the navy, see the world." At CAE, I tell graduates: "Join CAE and you will certainly see the world."

Effectively, our business is a global business. We have employees originating from more than 100 nationalities. They speak more than 100 languages and our customers come from 190 countries. Our diversity is a real, competitive strength. Not only do our employees speak the language, but they live the culture of our customers.

And we're determined to recruit the very best. To support that objective, CAE has hired 1,400 interns or co-op students in the last five years in Montreal, many of whom have become fulltime employees.

Today, CAE has partnerships with more than 20 universities and research institutes in Canada which we regard as building blocks or incubators for our future talent pool. When I was in university, Ecole Polytechnique had just opened a new engineering program specializing in aerospace. There were no others in Montreal. In fact, there was only one graduate program in aerospace in Canada, in Toronto. Today four aerospace programs are offered just here in Montreal --testimony to the growth of our industry.

The quality of our educational institutions is critical to our future success. We need more people trained in skills that will serve the demand for what we do best. Our future depends on it.

I sincerely believe that the success of aerospace and of CAE here in Montreal should be a source of great pride for all Canadians. It can be a genuine inspiration for young men and women with talent – in short for those on which our future success depends.

And the great news is that the future of our industry is very encouraging. Experts predict an average of 5% annual growth in air travel for the next 20 years. That effectively means that over the course of the next 20 years, air traffic will more than double! Also, there will be a need for 20,000 pilots alone per year for the next 20 years. Not many industries can predict such a growth. This is great news for CAE, Montreal and our industry.

There is no doubt that we live in a fast-moving world and we certainly can't rest on our laurels. To ensure our future prosperity in this growing market, here is what I believe we need to do:



1. Accentuate our strengths like aerospace with a genuine partnership with governments that will enable us to take advantage of where we see growth in the future.
2. Support efforts that improve access to markets with trade agreements like the Comprehensive Economic and Trade Agreement with the European Union and the Canada-Korea Free Trade Agreement. Investors, manufacturers and service providers need unfettered access and the certainty of the rule of law as a basis for fair competition.
3. Ensure a business climate that is conducive for growth. For this, we need stability. It is important for companies to know that government programs, including investment tax credits, Investissement Québec support and programs like Strategic Aerospace and Defense Initiative, are there to stay.
4. Support and engage our employees by offering great challenges and opportunities so they can develop themselves. And tell the story of our industry like I am doing today so they see what a promising future we have ahead of us.
5. Encourage more Small and Medium Size companies to emulate the global success of their large aerospace partners.
6. And finally, most of all, stimulate our entrepreneurs of tomorrow with equal portions of confidence, creativity and a healthy appetite for risk.

I believe that combination will provide a solid foundation for pride, for reward and for a better quality of life.

Les entreprises dans notre secteur doivent toujours demeurer à la fine pointe de la technologie afin de garder notre leadership. Par-dessus tout, nous devons nous assurer que notre culture d'innovation est aussi forte que notre réputation d'excellence.

Voilà pourquoi nous allons continuer à innover et à améliorer constamment nos produits et nos services. Voilà pourquoi nous continuerons d'améliorer notre avantage concurrentiel et inspirer nos employés à faire plus et mieux.

Si nous conservons notre passion pour l'excellence, nous continuerons d'attirer les meilleurs employés et nous assurerons un avenir encore plus prometteur à la fois à nos employés, à Montréal, au Québec et au Canada.

Je vous remercie de votre attention.