ROYAL CANADIAN AIR CADETS

PROFICIENCY LEVEL TWO

INSTRUCTIONAL GUIDE

SECTION 3

EO M270.03 – DISCUSS EDUCATION AND EMPLOYMENT OPPORTUNITIES IN AIRCRAFT MANUFACTURING AND MAINTENANCE

Total Time:

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-802/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Photocopy the handouts located at Annexes A to E for each learning station.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An in-class activity was chosen for this lesson as it is an interactive way to present education and employment opportunities in the aircraft manufacturing and maintenance industry and to stimulate an interest among cadets.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to have discussed education and employment opportunities in the aircraft manufacturing and maintenance industry.

IMPORTANCE

It is important for cadets to learn the different employment, education and career opportunities in order to gain an awareness of the options available to them in the aviation industry.

Unofficial convenience copy of A-CR-CCP-802/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-802-PF-001/A-CR-CCP-802-PF-001.pdf.
Verify against the official publication.

Teaching point 1 **Introduce the Aircraft Manufacturing and Maintenance Industry**

Time: 50 min Method: In-Class Activity



This activity should be conducted as learning stations. Each learning station will be conducted concurrently.



Take notes after reading the material and looking at the relevant visual aids at each station. Do not move materials from one station to another. Groups will rotate from one learning station to the next, every fifteen minutes, until every learning station has been visited.

The three learning stations include:

(1) employers in Canada,

(2) career options, and

(3) education and training institutions.



Learning Station One

Provide information about the employers in Canada, such as:

- Rolls-Royce Canada,
- Standard Aero,
- Aerospace and Defence Industries Association of Nova Scotia (ADIANS),
- Air Canada Technical Services,
- CHC Helicopter Corporation,
- Field Aviation,
- Goderich Aircraft Inc.,
- Canadian Heli Structures Ltd., and
- Bombardier.

Information on these employers can be found at Annex A.

Unofficial convenience copy of A-CR-CCP-802/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-802-PF-001/A-CR-CCP-802-PF-001.pdf.
Verify against the official publication.



Learning Station Two

Provide information about the career options in Canada, such as:

- aircraft gas turbine engine repair and overhaul technician,
- aircraft interior technician,
- aircraft maintenance technician,
- avionics maintenance technician,
- aircraft structures technician,
- aviation ground services attendant, and
- aviation and aerospace engineers.

Information on these careers can be found at Annex B.



Learning Station Three

Provide information about education and training institutions, such as:

- Simon Fraser University,
- Canadore College of Applied Arts and Technology,
- Centennial College,
- McGill University,
- École des métiers de l'aérospatiale de Montréal,
- Gander Aerospace Training Centre,
- Holland College,
- University of Calgary,
- Nova Scotia Community College, and
- Buffalo School of Aviation.

Information on these education and training institutions can be found at Annexes C to E.

ACTIVITY

Time: 50 min

OBJECTIVE

The objective of this activity is to introduce the cadets to the aircraft maintenance and manufacturing industry.

RESOURCES

Handouts located at Annexes A to E.

Unofficial convenience copy of A-CR-CCP-802/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-802-PF-001/A-CR-CCP-802-PF-001.pdf.
Verify against the official publication.

ACTIVITY LAYOUT

Create three learning stations in the classroom.

Place copies of the handouts for each cadet at the corresponding learning station.

ACTIVITY INSTRUCTIONS

1. Divide cadets into three groups.
2. Have each group start at different learning stations.
3. Each group will spend 15 minutes at each learning station.
4. After 15 minutes have each group rotate to the next learning station.
5. Rotate the groups until each group has visited all three learning stations.

SAFETY

N/A.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. Share with the class, three pieces of information about aircraft maintenance and manufacturing, that interested you.

Q2. Why did you find this information interesting?

Q3. Name an education or training institution in your area.

ANTICIPATED ANSWERS

A1. Answers may vary.

A2. Answers may vary.

A3. Answers may vary.

END OF LESSON CONFIRMATION

The cadets' participation in the in-class activity will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

Unofficial convenience copy of A-CR-CCP-802/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-802-PF-001/A-CR-CCP-802-PF-001.pdf.
Verify against the official publication.

CLOSING STATEMENT

Introducing education and employment opportunities in aircraft manufacturing and maintenance will help the cadet gain an awareness of the industry and may develop their interest in future opportunities in the aircraft manufacturing and maintenance industry.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

C3-101 Canadian Aviation Maintenance Council. (2006). *Careers in Aviation and Aerospace.* Ottawa, ON: Government of Canada's Sector Council Program.

C3-102 Canadian Aviation Maintenance Council. (2007). *Index of Corporate Profiles.* Retrieved 23 February 2007, from http://www.camc.ca/en/CorporateProflies/.

Unofficial convenience copy of A-CR-CCP-802/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-802-PF-001/A-CR-CCP-802-PF-001.pdf.
Verify against the official publication.

THIS PAGE INTENTIONALLY LEFT BLANK

Unofficial convenience copy of A-CR-CCP-802/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-802-PF-001/A-CR-CCP-802-PF-001.pdf.
Verify against the official publication.

AIRCRAFT MANUFACTURING AND MAINTENANCE EMPLOYERS IN CANADA

ROLLS-ROYCE CANADA

The company employs 1500 people at facilities in Montréal, Quebec, and Vancouver, British Columbia.

Montréal's capabilities include: repair and overhaul on a wide range of civil and military aero engines; research and development for the energy business; new production assembly and test for the Industrial RB211 engine; and component repair services for the Industrial Trent engines.

The Montréal facility is the largest of seven Rolls-Royce Canadian sites occupying more than 152 000 square metres of plant, laboratory and office space, and housing six engine test cells. Annual sales are in excess of $600 million, 90 percent of which is exported. The company supports 500 customers in 30 countries on five continents.

The Vancouver-based Marine Propulsion division of Rolls-Royce manufactures an integrated unit that performs both steering and propulsion functions. This unit replaces a conventional propeller, rudder and reduction gearbox.

The state-of-the-art test facility, which consists of approximately 8473 square metres, was constructed with the financial assistance of the Government of Quebec. The installation is intended to serve as a test bed for the industrial Trent engine as well as a provider of electricity to the City of Montréal, allowing the city to continue to supply drinking water in case of an emergency caused by a power failure affecting its water filtration plants.

STANDARD AERO

Standard Aero is one of the world's largest independent small gas turbine engine and accessories repair and overhaul companies. Standard Aero services engines used on corporate/business aircraft, commercial airliners, helicopters, and government/military aircraft. They do service for the following engines:

- PW100,
- PT6A,
- Model 250,
- T56/501D,
- AE3007,
- AE2100,
- CF34,
- GTCP 36, and
- 85.

AEROSPACE AND DEFENCE INDUSTRIES ASSOCIATION OF NOVA SCOTIA (ADIANS)

The Aerospace and Defence Industries Association of Nova Scotia (ADIANS) supports the growing and diversified aerospace and defence industry, which employs approximately 5200 workers. The association operates in both the defence and commercial markets. Approximately 80 percent of its revenue comes from maintaining the Department of National Defence's (DND) $25 billion worth of assets.

The large, medium and small firms which make up ADIANS' membership offer a range of products and services from advanced composite materials to training to transmitters and receivers.

ADIANS' initiatives foster sector strength in military and commercial development at the local, national and international level. The association helps members expand and position themselves for global market opportunities by helping them access government programs for industrial development opportunities. The

Unofficial convenience copy of A-CR-CCP-802/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-802-PF-001/A-CR-CCP-802-PF-001.pdf.
Verify against the official publication.

association facilitates discussion and cooperation amongst industry, government, and all levels of academia when it comes to human resource training issues and technology challenges needed for innovation and growth.

ADIANS' development of an aerospace and defence sector export strategy, enhances current and future opportunities for manufacturers, suppliers and service companies.

AIR CANADA TECHNICAL SERVICES

Air Canada Technical Services provides a diverse range of maintenance, repair and overhaul services to many of the world's commercial airlines, leasing companies and the military. Their highly skilled personnel, state-of-the-art facilities and their commitment to excellence assures all their customers superior quality, reduced turn around times and competitive pricing.

OPERATIONS

Airframe Maintenance

- Line and heavy maintenance,
- Aircraft modifications,
- Cabin conversions,
- Aircraft painting, and
- Landing gear changes.

Component Maintenance

- Avionics,
- Instruments and electrical,
- Pneumatics and hydraulics,
- Fuel systems,
- Landing gears,
- Safety, and
- Wheels and brakes.

The aircraft handled under airframe and component maintenance are:

- The Airbus A310, A320, A330 and A340,
- The Boeing 737, 747, and 767; and
- The Bombardier Canadair Regional Jet (CRJ).

Engine Maintenance

Maintenance, repair and overhaul services are completed on the following engine models:

- CFM56,
- CF34,
- PW4000, and
- JT9D.

Other services include:

Unofficial convenience copy of A-CR-CCP-802/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-802-PF-001/A-CR-CCP-802-PF-001.pdf.
Verify against the official publication.

- On-wing support,
- Quick engine change,
- Thrust reversers,
- Auxiliary Power Unit GTCP36-300, and
- Engine components repairs.

Specialized Services

- Technical training,
- Fleet management and engineering,
- Technical records and publication services,
- Material management, and
- Composite repairs.

CHC HELICOPTER CORPORATION

CHC Helicopter Corporation is the world's largest provider of helicopter services to the global offshore oil and gas industry, with aircraft operating in 30 countries and a team of approximately 3500 professionals worldwide.

CHC continues to strengthen its position as the helicopter service company of choice for the world's leading oil and gas companies. CHC is a total solutions transportation service company, providing its customers with aircraft, pilots, maintenance, insurance, logistics support and training anywhere in the world. The company works on seven continents, from the Canadian Arctic to Antarctica, and from Azerbaijan to Venezuela.

CHC's current projects include: offshore industries support, offshore search and rescue, air ambulance services, repair and overhaul services, aerial firefighting support, construction industry service, mineral exploration support, composite materials manufacturing, flight training and flight simulator facilities, humanitarian aid work and a variety of other helicopter services around the world.

FIELD AVIATION

Since 1947, Field Aviation (Field) has grown into a worldwide airline support centre serving regional aircraft including commercial, corporate, individual, and military aircraft. Field is dedicated to servicing most turboprop and regional jet aircraft.

With over 50 years experience in repairing, modifying, and refinishing regional aircraft, Field has become one of Canada's largest full-service support organizations with major operation centres in Calgary and Toronto. Field employs aviation technicians that conduct a multitude of heavy checks, airframe structural repairs and modifications, exterior and interior refurbishments, along with a comprehensive array of aircraft avionics and engineering services. Field also manufactures quality spare parts and is equipped to repair sheet metal, hydraulic and composite components.

GODERICH AIRCRAFT INC.

Goderich Aircraft Inc. began in 1993. Goderich Aircraft Inc., formerly Crown Charter-Phoenix Aviation out of Brantford, Ontario, is located in Huron Park, Ontario and has grown to a staff of approximately 80 employees. Over the years it moved into the US market for aircraft refurbishment market and transformed into a company that provides a wide range of services for aircraft.

The company services include:

- aircraft painting,

Unofficial convenience copy of A-CR-CCP-802/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-802-PF-001/A-CR-CCP-802-PF-001.pdf.
Verify against the official publication.

- interior refurbishment, such as:
  - cabinets,
  - carpet, seats, or
  - floor plan modifications, and
- avionics, maintenance, such as:
  - large scale rebuilds,
  - modifications, and
  - parts sales.

Goderich Aircraft Inc. is able to complete maintenance inspections while the aircraft is undergoing other services.

CANADIAN HELI STRUCTURES LTD

Founded in 1996, Canadian Heli Structures Ltd. (C.H.S.) is a Canadian company incorporated under the laws of British Columbia, Canada. C.H.S. is a Bell Helicopter Textron (BHT) “Specialty Customer Service Facility” and is committed to the utmost in service of Bell Helicopter major structural repairs, modifications, and specialty welding on light and medium turbine helicopters.

With years of experience specializing on BHT light and medium airframe jigs, C.H.S. is able to perform airframe repairs with the knowledge of complete overhauls to the highest standards and quality service in a timely manner.

Their maintenance department is staffed with a wide range of technicians and all their maintenance is performed in compliance with Transport Canada Regulations, which is equivalent to the Federal Aviation Administration (FAA) regulations.

BOMBARDIER

In 1942, J. Armand Bombardier founded a company to manufacture tracked vehicles for transportation on snow-covered terrain. The company’s name is L’Auto-Neige Bombardier Limitée. In 1967, L’Auto-Neige Bombardier Limitée became Bombardier Limited.

Bombardier Aerospace is a world leader in the design and manufacturer of innovative aviation products and services for the business, regional and amphibious aircraft markets. This legacy of innovation consolidates more than 250 years of aviation history and has developed 19 successful new aircraft programs since 1989. Bombardier employs approximately 27 000 people worldwide.

Bombardier manufactures business, regional and amphibious aircraft to address the specific aviation needs of their customers. Their aircraft have a multiple range of applications. Their aircraft include:

- Bombardier Learjet family, to include:
  - Learjet 40 XR,
  - Learjet 45 XR, and
  - Learjet 60 XR;
- Bombardier Challenger family, to include:
  - Challenger 300,
  - Challenger 605,

Unofficial convenience copy of A-CR-CCP-802/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-802-PF-001/A-CR-CCP-802-PF-001.pdf.
Verify against the official publication.

  - Challenger 850,
  - Challenger 850 Corporate Shuttle,
  - Challenger 870 Corporate Shuttle, and
  - Challenger 890 Corporate Shuttle;
- Bombardier Global family, to include:
  - Bombardier Global 5000, and
  - Global Express XRS;
- Bombardier CRJ series regional jets, to include:
  - 50-passenger CRJ200,
  - 70- to 78-passenger CRJ700,
  - 75-passenger CRJ705,
  - 86- to 90-passenger CRJ900, and
  - up to 100-passenger CRJ1000;
- Bombardier Q series regional turboprops, to include:
  - 37- to 39-passenger Q200,
  - 50- to 56-passenger Q300, and
  - 68- to 78-passenger Q400; and
- Bombardier amphibious aircraft (Bombardier 415).

The world's most productive firefighting aircraft in service is the Bombardier 415. This amphibious water bomber can also be configured for a wide range of multi-mission capabilities including search and rescue, maritime patrol, law enforcement and environmental control.

Unofficial convenience copy of A-CR-CCP-802/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-802-PF-001/A-CR-CCP-802-PF-001.pdf.
Verify against the official publication.

THIS PAGE INTENTIONALLY LEFT BLANK

Unofficial convenience copy of A-CR-CCP-802/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-802-PF-001/A-CR-CCP-802-PF-001.pdf.
Verify against the official publication.

AIRCRAFT MANUFACTURING CAREERS

AIRCRAFT GAS TURBINE ENGINE REPAIR AND OVERHAUL TECHNICIAN

The gas turbine was one of the greatest inventions of the last century: it is unique and simple in its basic operation and yet immensely complicated to design and build. In the aviation industry, gas turbine engines are used in jet aircraft and power turbo-prop aircraft.

Aircraft gas turbine engine repair and overhaul technicians enjoy a very challenging and rewarding career that requires a high degree of responsibility and skill. Technicians perform the disassembly, inspection, repair, assembly and testing of gas turbine engines in sophisticated shop environments and test cells, complete with computer-assisted systems and leading-edge tools, machinery and techniques.

Education

An aircraft gas turbine repair and overhaul technician will need a high school diploma. You will also need to complete a recognized structured training program in gas turbine repair and overhaul; these courses may be taken at a college or through a company-sponsored program. See the College and University section for more information.

Work

Recent surveys indicate excellent job placement rates with opportunities in engine repair and overhaul facilities as well as airlines, component and propeller overhaul businesses and engine manufacturers. You can receive an aircraft gas turbine repair and overhaul technician certification through the Canadian Aviation Maintenance Council (CAMC).

AIRCRAFT INTERIOR TECHNICIAN

Aircraft interior technicians are responsible for maintaining the quality of aircraft interiors and cabin furnishings including safety, survival and evacuation equipment such as rafts, flotation devices and escape slides.

This trade is also responsible for aircraft reconfigurations, such as changing from cargo to passenger or passenger to cargo, and aircraft interior seating arrangements: first class, business class, economy class, etc. From headliners, carpet and cabinets through to panels, coverings, seats and bulkheads, these aviation experts have to assess, remove, repair and reinstall everything and anything that has to do with interior components. Not only are the tasks diverse for an aircraft interior technician, but so are the skills and the challenges they have. Aircraft interior technicians are master craftspeople that also have to be excellent team players that pay tireless attention to details and the highest maintenance and safety standards.

Education

Aircraft interior technicians have a high school diploma and have benefited from an apprenticeship or college training program. See the College and University section for more information.

Work

As a consummate team player and professional, aircraft interior technicians have promising careers as part of larger units working for airlines or major repair and overhaul companies and manufacturers. You can receive an aircraft interior technician certification through the Canadian Aviation Maintenance Council (CAMC).

AIRCRAFT MAINTENANCE TECHNICIAN

Aircraft Maintenance Technicians (AMTs) have the important responsibility of keeping aircraft operating safely and efficiently. It is not just important—lives depend on it. AMTs are the frontline aviation professionals that service, repair and overhaul aircraft components and systems including airframes, engines, electrical and hydraulic systems, propellers, avionics equipment and aircraft instruments.

Unofficial convenience copy of A-CR-CCP-802/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-802-PF-001/A-CR-CCP-802-PF-001.pdf.
Verify against the official publication.

As an AMT, you might work on one or many different types of aircraft such as jets, propeller-driven airplanes and helicopters. To keep aircraft in peak operating condition, AMTs perform scheduled maintenance and complete inspections that have to meet the strictest industry regulations. There are no exceptions. You have to be a perfectionist with excellent communication skills and an unshakeable commitment to safety. You must remain up to date as safety regulations change very rapidly. Innovations in space-age technology mean that AMTs have to be front-runners in their field in order to meet the rapid advances in computer technology, electronics and fibre composite structural material. It is fast, intense, deadline-driven and very high tech. If you are looking for a challenging career with limitless potential, be sure to look into becoming an aircraft maintenance technician.

Education

Aircraft maintenance technicians have a high school diploma. AMTs must complete training at a certified college or training facility. See the College and University section for more information.

Work

As a successful AMT, you can find a rewarding career with airlines, aircraft manufacturers, aerospace organizations, the military, as well as repair and maintenance facilities. There are many avenues open to experienced AMTs, for instance you can be certified by the Canadian Aviation Maintenance Council (CAMC) and/or become an aviation maintenance engineer “M” class (AME)(M), which is a Transport Canada licensed trade. From there, you could go on to join management as a company’s director of maintenance.

AVIONICS MAINTENANCE TECHNICIAN

Avionics is the study and practice of complex electronic and electrical systems including navigation, guidance systems, communications, surveillance and flight control. Critical to safe and timely operation of all aircraft on the ground and in the air, thorough and up-to-date knowledge of avionics opens the door to numerous employment opportunities in the aviation and aerospace industries.

As an avionics maintenance technician, you are a master of aircraft micro-processor technology. You are on the front-line doing tests, calibrations, repairs and maintenance on state-of-the-art systems including “fly by wire”, auto flight, global positioning and satellite navigation. Fascinated with sophisticated electronics systems, a good avionics maintenance technician is an excellent team player with solid communication skills and a tireless commitment to safety and excellence. This is arguably one of the most demanding trades in aviation.

Education

Avionics maintenance technicians have a high school diploma with strong grades in English, communications and mathematics; you will then complete a college program in electrical and electronics or specialized training at a certified college or training facility. See the College and University section for more information.

Work

A career as an avionics maintenance technician opens the door to airports, aviation electronic shops, airlines, helicopter operations, aircraft manufacturers and repair facilities and aerospace organizations. There are many avenues open to experienced avionics maintenance technicians, for instance you can be certified by the Canadian Aviation Maintenance Council (CAMC) and/or become an aviation maintenance engineer “E” category (AME)(E), which is a Transport Canada licensed trade.

AIRCRAFT STRUCTURES TECHNICIAN

An aircraft structures technician is one of the key members of the air maintenance team that handles services and maintains aircraft and associated equipment. This job is critical to aviation safety and quality maintenance as aircrews depend on your skills to keep them safe.

The aircraft structures technician’s job is to keep the aircraft in perfect flying condition by constructing and repairing metal and composite parts of an aircraft’s fuselage, wings and control surfaces, which include machining, painting, welding and refinishing. You will also be expected to follow aircraft fabrication and repair

Unofficial convenience copy of A-CR-CCP-802/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-802-PF-001/A-CR-CCP-802-PF-001.pdf.
Verify against the official publication.

schemes with surgical precision for aluminum, titanium and stainless steel structures, as well as plastics and composites. If you enjoy working with tools, machines and state-of-the-art equipment, and you have stamina and are able to master new procedures quickly, this profession may be for you.

Education

Aircraft structures technicians have a high school diploma and require additional training at a certified college or training facility. See the College and University section for more information.

Work

You can become certified by the Canadian Aviation Maintenance Council (CAMC) as an aircraft structures technician and find a rewarding career with airlines, maintenance and overhaul companies, aircraft manufacturers or aerospace organizations. This trade is a prerequisite to becoming an aviation maintenance engineer “S” category (AME)(S), which is a Transport Canada licensed trade.

AVIATION GROUND SERVICES ATTENDANT

If you look out at the airport terminal grounds and see aircraft coming and going, you are at the same time viewing the busy workplace of an aviation ground services attendant. The individuals servicing the aircraft fill many roles that require in-depth training.

Every imaginable type of motorized equipment is used to service an aircraft, from pallet loaders, potable water trucks, mobile conveyor belts, tugs for pulling baggage cart trains to high-speed aircraft tow tractors, to name a few.

Ground services attendants are the people who load and unload the aircraft materials, and who are responsible for positioning the baggage/cargo in such a way as to stay within the operating weight and balance limits of the aircraft (an unbalanced aircraft is an unsafe aircraft), all the while working within stringent time constraints in a high noise environment with jet blast hazards.

The lead attendant is responsible for the final pre-flight security inspection and commands the push-back crew. Excellent math and physics skills, environmental awareness and hazardous material knowledge are but some of the skills necessary to the position. A love of the outdoors, the ability to operate in all weather conditions, and good physical conditioning are assets in this demanding job.

This serious role is often the entry level for other positions, especially in large organizations: promotion to lead or cargo loadmaster, for example. Baggage, commissary, cargo, weight and balance controllers can also rise up to management positions, overseeing people/teams, terminal control, gate assignments, and more.

Education

As a successful aviation ground control attendant, you will need to have a high school diploma. You also will have to receive internal company training in aviation general practices and specialized courses. Companies will provide the licenses for heavy equipment operator, safety training, firefighting proficiency, air side security, and a driving permit. Canadian Aviation Maintenance Council (CAMC) certification is available with a minimum of one year’s experience in the occupation at level 1 - Cargo, and one more year’s experience at level 2 - Passenger.

Work

Some of the job titles available in this occupation include:

- Station attendant,
- Lead station attendant,
- Cargo attendant, and
- Commissary attendant.

Unofficial convenience copy of A-CR-CCP-802/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-802-PF-001/A-CR-CCP-802-PF-001.pdf.
Verify against the official publication.

AVIATION AND AEROSPACE ENGINEERS

If there ever was an industry designed to meet the challenges and rewards of engineering, the aviation and aerospace industry is it. The following engineers are contributors in aviation and aerospace:

- Aerodynamics,
- Avionics,
- Design,
- Engineering reliability,
- Equipment,
- Field service,
- Flight test,
- Instrumentation,
- Manufacturing materials,
- Aeronautical,
- Aerospace,
- Ceramic,
- Chemical,
- Civil,
- Electronic,
- Electrical,
- Engineering physics,
- Industrial,
- Mechanical,
- Petroleum,
- Metallurgical, and
- Computer and nuclear.

What do all these engineers contribute? As an example, petroleum engineers research, develop and supervise projects associated with the design and operation of gas turbine and piston aero-engines. Aerospace engineers research, design and develop aircraft, spacecraft, missiles, aerospace systems and their components. Whatever the area that most interests you, there are countless opportunities within this dynamic, forward-thinking industry.

Education

You must complete a university degree in your preferred area of expertise in order to become an Engineer; in fact you must receive provincial recognition or accreditation. See the College and University section for more information.

Unofficial convenience copy of A-CR-CCP-802/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-802-PF-001/A-CR-CCP-802-PF-001.pdf.
Verify against the official publication.

Work

Engineers can find stimulating and rewarding careers in all aviation and aerospace-related firms that design, manufacture, repair and overhaul aeronautical products including complete aircraft, engines, components and systems and sub-systems.

Unofficial convenience copy of A-CR-CCP-802/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-802-PF-001/A-CR-CCP-802-PF-001.pdf.
Verify against the official publication.

THIS PAGE INTENTIONALLY LEFT BLANK

Unofficial convenience copy of A-CR-CCP-802/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-802-PF-001/A-CR-CCP-802-PF-001.pdf.
Verify against the official publication.

EDUCATIONAL INSTITUTIONS

BRITISH COLUMBIA

Simon Fraser University
School of Engineering Science
8888 University Drive
Burnaby, BC V5A 1S6
www.sfu.ca

University of British Columbia
Faculty of Applied Science
2329 West Mall
Vancouver, BC V6T 1Z4
www.ubc.ca

University of Victoria
Faculty of Engineering
P.O. Box 1700 STN CSC
Victoria, BC V8W 2Y2
www.uvic.ca

ACRO Aerospace
ACRO Aerospace Inc.
4551 Agar Drive
Richmond, BC V7B 1A4
www.acro.ca

Kelowna Flightcraft
5655 Airport Way
Kelowna, BC V1V 1S1
www.flightcraft.ca

ALBERTA

University of Calgary
Faculty of Engineering
2500 University Drive NW
Calgary, AB T2N 1N4
www.ucalgary.ca

SASKATCHEWAN

University of Saskatchewan
College of Engineering
105 Administration Place
Saskatoon, SK S7N 5A2
www.usask.ca

University of Regina
Faculty of Engineering
3737 Wascana Parkway
Regina, SK S4S 0A2
www.uregina.ca

MANITOBA

University of Manitoba
Faculty of Engineering
Winnipeg, MB R3T 2N2
www.umanitoba.ca

ONTARIO

Carleton University
Faculty of Engineering
1125 Colonel By Drive
Ottawa, ON K1S 5B6
www.carlton.ca

Ryerson University
Faculty of Engineering and Applied Science
350 Victoria Street
Toronto, ON M5B 2K3
www.ryerson.ca

University of Toronto
Faculty of Applied Science and Engineering
Division of Engineering Science
Galbraith Building, Room 149
35 St. George Street
Toronto, ON M5S 1A4
www.utoronto.ca

University of Toronto Institute for Aerospace Studies (UTIAS)
4925 Dufferin Street
Toronto, ON H3H 5T6
(416) 667-7700

Unofficial convenience copy of A-CR-CCP-802/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-802-PF-001/A-CR-CCP-802-PF-001.pdf.
Verify against the official publication.

EDUCATIONAL INSTITUTIONS

Lakehead University
Faculty of Engineering
955 Oliver Road
Thunder Bay, ON P7B 5E1
www.lakeheadu.ca

McMaster University
Faculty of Engineering
2329 West Mal1280 Main Street West I
Hamilton, ON L8S 4L8
www.mcmaster.ca

Queen's University
Faculty of Applied Science
99 University Avenue
Kingston, ON K7L 3N6
www.queensu.ca

Royal Military College
Engineering Division
P.O. Box 17000 Station Forces
Kingston, ON K7K 7B4
www.rmc.ca

University of Guelph
Faculty of Engineering
Guelph, ON N1G 2W1
www.uoguelph.ca

University of Ottawa
Faculty of Engineering
161 Louis Pasteur
Ottawa, ON K1N 6N5
www.genie.uottawa.ca

University of Waterloo
Faculty of Engineering
200 University Avenue West
Waterloo, ON N2L 3G1
www.uwaterloo.ca

University of Western Ontario
Faculty of Engineering Science
1151 Richmond Street, Suite 2
London, ON N6A 5B8
www.uwo.ca

University of Windsor
Faculty of Engineering
401 Sunset Avenue
Windsor, ON N9B 3P4
www.uwindsor.ca

Renaissance Aeronautics
169 Deer Park Circle
London, ON N6H 3B9
www.raacomposites.com

Canadore College of Applied Arts and Technology
55 Aviation Avenue
P.O. Box 5001
North Bay, ON P1B 8K9
www.canadorec.on.ca

Centennial College
P.O. Box 631, Station A
Scarborough, ON M1K 5E9
www.centennialcollege.ca

QUEBEC

École de technologie supérieure
1100, rue Notre-Dame Ouest
Montréal, QC H3C 1K3
www.etsmtl.ca

Université du Québec à Chicoutimi
Département des sciences appliquées
555, boulevard de l`Université
Chicoutimi, QC G7H 2B1
www.dsa.uqac.uquebec.ca

École nationale D`aérotechnique
Du Collège Édouard-Montpetit
5555, place de la Savane
St. Hubert, QC J3Y 5K2
www.collegeem.qc.ca

École des métiers de l`aérospatiale de Montréal
5300, rue Chauveau
Montreal, QC H1N 3V7
www.csdm.qc.ca/emam/

Unofficial convenience copy of A-CR-CCP-802/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-802-PF-001/A-CR-CCP-802-PF-001.pdf.
Verify against the official publication.

EDUCATIONAL INSTITUTIONS

John Abbott College
21, 275 Lakeshore Road
Ste, Anne de Bellevue, QC
H9X 3L9
www.johnabbott.qc.ca

Concordia University
Faculty of Engineering and Computer Science
1455 de Maisonneuve Blvd. West
Montreal, QC H3G 1M8
www.concordia.ca

École Polytechnique de Montréal
C.P. 6079, Succ. Centre-ville
Montréal, QC H3C 3A7
www.polymtl.ca

McGill University
Faculity of Engineering
845 Sherbrooke Street West
Montreal, QC H3A 2T5
www.mcgill.ca

Université de Sherbrooke
Faculté des sciences appliquées
2500, boulevard de l`Université
Sherbrooke, QC J1K 2R1
www.usherb.ca

Université Laval
Faculté des sciences et de génie
Cartier Boone-enfant, Local 2440
Cite Universitaire
Quebec, QC G1K 7P4
www.ulaval.ca

Université du Québec à Rimouski
Module de génie
300 allée des Ursulines, B.P. 3300
Rimouski, QC G5L 3A1
www.uqar.uquebec.ca

Université du Québec en Outaouais
Module de génie
C.P. 1250 Succursale B
Hull, QC J8X 3X7
www.uqo.ca

Université du Québec à Trois-Rivières
Département d'ingénierie
3351, boulevard des Forges, B.P. 500
Trois-Rivières, QC G9A 5H7
www.uqtr.ca

NOVA SCOTIA

Dalhousie University
Faculty of Engineering
1360 Barrington Street
Halifax, NS B3J 1Z1
www.dal.ca

Nova Scotia Community College
4 Hangar, Shearwater,
P.O. Box 1171, Stn. Main
Shearwater, NS B0J 3A0
www.nscc.ns.ca

NEW BRUNSWICK

Université de Moncton
École de génie
165, avenue Massey
Moncton, NB E1A 3E9

University of New Brunswick
Faculty of Engineering
3 Bailey Drive, P.O. Box 4400
Fredericton, NB E3B 5A3
www.unb.ca

Unofficial convenience copy of A-CR-CCP-802/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-802-PF-001/A-CR-CCP-802-PF-001.pdf.
Verify against the official publication.

EDUCATIONAL INSTITUTIONS

PRINCE EDWARD ISLAND

Holland College — Aerospace and Industrial Technology Centre
40 Parkway Drive
P.O. Box 235
Slemon Park, PE C0B 2P0
www.hollandc.pe.ca

NEWFOUNDLAND

College of the North Atlantic
Gander Campus
1 Magee Road, P.O. Box 395
Gander, NF A1V 1W8
www.northatlantic.nf.ca

Memorial University of Newfoundland
Faculty of Engineering
and Applied Science
St. John’s, NF A1C 5S7
www.mun.ca

Gander Aerospace Training Centre
Gander Flight Training
P.O. Box 355
Gander, NF A1V 1W7
www.gft.nf.ca

NORTHWEST TERRITORIES

Buffalo School of Aviation
Box 2015
Yellowknife, NT X1A 2R3
www.buffaloairways.com

Unofficial convenience copy of A-CR-CCP-802/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-802-PF-001/A-CR-CCP-802-PF-001.pdf.
Verify against the official publication.

AVIATION TECHNICIAN PROGRAMS

Program	Education / Training Institutions															
	Acro Aerospace (BC)	British Columbia Institute (BC)	Canadore College (ON)	Carlton University (ON)	Centennial College (ON)	College of North Atlantic (NL)	DND Canadian Forces School of Aerospace Technology and Engineering (ON)	École des métiers de l'aérospatiale de Montréal (QC)	École nationale D'aérotechnique (QC)	Gander Aerospace Training Centre (NL)	Holland College — Aerospace and Industrial Technology Centre (PE)	Kelowna Flightcraft (BC)	Northern Alberta Institute of Technology (AB)	Nova Scotia Community College (NS)	Southern Alberta Institute of Technology (AB)	Stevenson Aviation and Aerospace Training Centre (MB)
Aircraft Gas Turbines Engine Repair and Overhaul Technician	x	x						x		x	x					
Aircraft Interior Technician		x														
Aircraft Maintenance Technician		x	x		x		x				x			x	x	x
Aircraft Structures Technician		x	x			x			x		x	x		x	x	x
Aviation Mechanical Component Technician		x														
Aviation Painter		x							x							
Aviations Welding Technician		x														x
Avionics Maintenance Technician		x	x		x		x		x				x		x	x
Helicopter Component Technician										x						

Unofficial convenience copy of A-CR-CCP-802/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-802-PF-001/A-CR-CCP-802-PF-001.pdf.
Verify against the official publication.

THIS PAGE INTENTIONALLY LEFT BLANK

Unofficial convenience copy of A-CR-CCP-802/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-802-PF-001/A-CR-CCP-802-PF-001.pdf.
Verify against the official publication.

ENGINEERING PROGRAMS

	Education / Training Institutions													
Program	Buffalo School of Aviation (NT)	Carlton University (ON)	Lakehead University (ON)	McMaster University (ON)	Queen's University (ON)	Ryerson University (ON)	Simon Fraser University (BC)	University of British Columbia	University of Calgary (AB)	University of Manitoba	University of Regina (SK)	University of Saskatchewan	University of Toronto (ON)	University of Victoria (BC)
Aviation Maintenance Engineer	x													
Bachelor of Aerospace Engineering		x				x							x	
Bachelor of Manufacturing Technology				x										
Chemical Engineering			x	x		x						x		
Computer Engineering				x	x	x	x	x	x	x			x	x
Computer Systems Engineering		x												
Electronics Engineering							x	x						
Electronic Systems Engineering											x			
Electrical Engineering		x	x	x	x	x			x	x		x	x	x
Electrical / Computer Engineering									x					
Engineering Physics					x		x	x				x		
Industrial Engineering						x							x	
Industrial Systems Engineering										x	x			
Manufacturing / Mechanical Engineering									x					
Masters of Applied Science in Aerospace Engineering		x											x	
Masters of Engineering Mechanics and Engineering Aerospace													x	
Materials Engineering													x	
Mechanical Engineering		x	x	x	x	x							x	x
Mechanical Engineering with Aerospace Option										x		x		
Metallurgical Engineering				x	x			x						
Metals and Materials Engineering								x	x					
PHD Aeronautical Aerospace Engineering		x												
Software Engineering			x	x		x			x					x
Systems Engineering							x				x			

Unofficial convenience copy of A-CR-CCP-802/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-802-PF-001/A-CR-CCP-802-PF-001.pdf.
Verify against the official publication.

THIS PAGE INTENTIONALLY LEFT BLANK

Unofficial convenience copy of A-CR-CCP-802/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-802-PF-001/A-CR-CCP-802-PF-001.pdf.
Verify against the official publication.