CHAPTER 11

PO 320 – PARTICIPATE IN CANADIAN FORCES (CF) FAMILIARIZATION ACTIVITIES

ROYAL CANADIAN AIR CADETS

PROFICIENCY LEVEL THREE

INSTRUCTIONAL GUIDE

SECTION 1

EO M320.01 – DESCRIBE THE ROLE OF CANADA'S AIR FORCE

Total Time: 30 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-803/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.

Update the information sheets located at Annexes A to D using the reference.

Photocopy the updated information sheets, ensuring there is one copy at the learning stations for each cadet in the largest group.

Photocopy the worksheet located at Annex E for each cadet in the class.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An in-class activity was chosen for TP 1 as it is an interactive way to present the role of Canada's air force and stimulate interest among cadets.

A group discussion was chosen for TP 2 as it allows the cadets to interact with their peers and share their knowledge, experiences, opinions, and feelings about Canada's air force.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall have described the role of Canada's air force.

IMPORTANCE

It is important for cadets to know the role of Canada's air force. By recognizing that role, cadets may develop an appreciation of the Canadian Forces (CF) and for the many important services that it provides.

Teaching Point 1 **Have the Cadets, in Four Groups, Rotate Through Learning Stations to Learn the Role of Canada's Air Force**

Time: 20 min Method: In-Class Activity

Give each cadet a copy of the nine research questions located at Annex E. The answers to the nine research questions are located at Annex F.

ACTIVITY

OBJECTIVE

The objective of this activity is to gain knowledge of the role of Canada's air force.

RESOURCES

- Significant information about the purpose of Canada's air force located at Annex A,
- Significant information about the structure of Canada's air force located at Annex B,
- Significant information about the aircraft of Canada's air force located at Annex C,
- Significant information about the activities of Canada's air force located at Annex D,
- Worksheet located at Annex E, and
- Answers to worksheet located at Annex F.

ACTIVITY LAYOUT

Four learning stations will be set up and clearly marked for each of the aspects of Canada's air force, and will include copies of the respective annexes, one for each cadet in the largest group. The four stations will include:

- purpose, to include:
  - serving Canadians, and
  - serving the world;
- structure,
- aircraft, and
- activities, to include:
  - operations,
  - training, and
  - exercises.

ACTIVITY INSTRUCTIONS

1. Distribute Annex E to each cadet.

2. Divide the cadets into four groups and place each group at one of the learning stations.
3. Cadets will have five minutes at each station to fill in their worksheet from the information provided.
4. After five minutes, the groups will rotate clockwise to the next station, where they will continue to fill in their worksheet.
5. Rotate the groups through the remaining stations.
6. Correct worksheet using the answer key located at Annex F.

SAFETY

N/A.

CONFIRMATION OF TEACHING POINT 1

The cadets' participation in the activity will serve as the confirmation of this TP.

Teaching Point 2 **Discuss the Role of Canada's Air Force**

Time: 5 min Method: Group Discussion

BACKGROUND KNOWLEDGE

The point of the group discussion is to draw the following information from the group using the tips for answering/facilitating discussion and the suggested questions provided.

Canada's air force has many roles, which it constantly adapts to a changing world. Among the many things that influence air force roles are technological advancements and political changes. Even the weather in distant parts of the world can place new demands on Canada's air force when it is called upon to help victims of weather-related natural disasters.

GROUP DISCUSSION

TIPS FOR ANSWERING/FACILITATING DISCUSSION

- Establish ground rules for discussion, eg, everyone should listen respectfully; don't interrupt; only one person speaks at a time; no one's ideas should be made fun of; you can disagree with ideas but not with the person; try to understand others as much as you hope they understand you; etc.
- Sit the group in a circle, making sure all cadets can be seen by everyone else.
- Ask questions that will provoke thought; in other words avoid questions with yes or no answers.
- Manage time by ensuring the cadets stay on topic.
- Listen and respond in a way that indicates you have heard and understood the cadet. This can be done by paraphrasing their ideas.
- Give the cadets time to respond to your questions.
- Ensure every cadet has an opportunity to participate. One option is to go around the group and have each cadet answer the question with a short answer. Cadets must also have the option to pass if they wish.
- Additional questions should be prepared ahead of time.

SUGGESTED QUESTIONS

Q1. Which roles of Canada's air force do you think are most important?

Q2. Which roles of Canada's air force are newest?

Q3. Which roles of Canada's air force are oldest?

Q4. How might the role of Canada's air force change in the future?

Other questions and answers will develop throughout the group discussion. The group discussion should not be limited to only those suggested.

Reinforce those answers given and comments made during the group discussion, ensuring the teaching point has been covered.

CONFIRMATION OF TEACHING POINT 2

The cadets' participation in the group discussion will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The cadets' participation in the air force roles activity and group discussion will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

As members of the Royal Canadian Air Cadets, this knowledge of the roles of Canada's air force will enhance the cadets' understanding of both Canada and its people. Understanding the roles of Canada's air force may lead to increased appreciation of the CF and its roles.

INSTRUCTOR NOTES/REMARKS

After the introduction each group will begin at a separate learning station. Rotate to a new learning station after approximately five minutes.

Current information from the reference shall be used for this lesson.

REFERENCES

A3-063 Department of National Defence. (2008). *Canada's Air Force: Air Force Home*. Retrieved February 25, 2008, from http://www.airforce.forces.gc.ca/site/index_e.asp.

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ROYAL CANADIAN AIR CADETS

PROFICIENCY LEVEL THREE

INSTRUCTIONAL GUIDE

SECTION 2

EO C320.01 – DISCUSS CANADIAN FORCES (CF) CAREERS IN AVIATION

Total Time:	30 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-803/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.

Print the pertinent information from the CF Recruiting web pages listed in the references.

Photocopy handouts located at Annexes G, H, and I for each cadet.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for this lesson to orient the cadets to and generate interest in CF aviation.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall have discussed CF careers in aviation, meeting one of the aims of the Cadet Program – to stimulate the interest of youth in the air activities of the CF.

IMPORTANCE

It is important for cadets to know what CF aviation careers are available to them and what prerequisites are required to meet those challenges if they choose a career in aviation.

Teaching Point 1 **Explain the Prerequisites and Training Needed to Become a Pilot in the CF**

Time: 10 min Method: Interactive Lecture

PREREQUISITES

Entry Plans

There are three entry plans for pilot applicants, with differing prerequisites. All applicants must meet the minimum vision requirements to become a pilot. The three entry plans are:

- **Regular Officer Training Plan (ROTP)**. ROTP is for those applicants who are going into university or are part way through a degree program. In this entry plan, applicants can attend Royal Military College (RMC) or another Canadian university. This education is paid for, but it comes with a period of obligatory service in the Regular component of the CF.
- **Direct Entry Officer (DEO)**. DEO is for applicants who have already attained a university degree. CF preference is for pilots to have a math or physics oriented education, which will assist in learning and understanding flying theory.
- **Continuing Education Officer Training Plan (CEOTP)**. CEOTP is for applicants who wish to apply immediately after graduation from high school but do not want to enrol in university right away. Still expected to attain a university degree, they do not have to complete it in a set time except they must complete it before leaving the military.

Vision Standards

In order to become a pilot in the CF, applicants must meet educational, physical and medical requirements. These are similar to requirements needed by other officers in the CF. One major difference is that applicants must have 20/20 vision, or be able to correct their vision to 20/20.

TRAINING PROGRESSION

Basic Officer Training Course (BOTC)

Once an applicant has been selected, they will attend the 13-week Basic Officer Training Course (BOTC) in St. Jean, Que. (QC). This course teaches all of the basic skills that are needed by an officer in the CF. The applicant must pass this course in order to progress to the next training phase.

Second Language Training

After BOTC, trainees attend second language training. This can last up to seven months depending upon personal proficiency. This course is designed to ensure that all regular force officers in the CF have the ability to communicate in both the official languages of Canada.

Primary Flight Training (PFT) in Portage la Prairie

Primary Flight Training (PFT) is the next stage in the training cycle. This occurs at Portage la Prairie, Man. PFT includes 40 training days learning to fly on the Grob 120A trainer.

After completion of PFT candidates will continue on to three supplementary courses, including:

- Aeromedical Training (AMT) in Winnipeg, Man.,
- Basic Land Survival Course (BLSC) in Winnipeg, Man., and

- Basic Sea Survival Course (BSSC) in Comox, B.C.

North Atlantic Treaty Organization (NATO) Flight Training Centre at 15 Wing

Basic Flying Training (BFT) is held at the NATO Flight Training Centre (NFTC) in Moose Jaw, Sask. Candidates learn to fly the CT-155 Harvard II as part of an eight-month course that consists of air and classroom instruction in flying and officer development. At the end of this course candidates are selected for Rotary Wing, Multi-Engine, or Fast Jet training.

The Advanced Flying Training (AFT) course is specialty training based on the candidates selection at the end of BFT. Helicopter pilots return to Portage la Prairie for the Basic Helicopter Course on the Bell Jet Ranger. Multi-engine pilots also return to Portage la Prairie where they will fly the King Air. Jet pilots will remain at NFTC to conduct additional training on the Harvard II progressing to the CT-156 Hawk.

Operational Training Units at Various Locations Across Canada

Regardless of where candidates go for AFT, upon completion of the course they will be awarded their pilot wings and posted to an Operational Training Unit (OTU) where they will begin seven years of obligatory service.

Give each cadet a handout of Annex G.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. Name the three entry plans available to applicants who wish to be pilots in the CF.

Q2. Once candidates have completed BOTC, what course do they take next?

Q3. What is the next step after candidates have graduated from BFT?

ANTICIPATED ANSWERS

A1. ROTP, DEO, and CEOTP.

A2. Second language training.

A3. AFT at locations dependant on the specific flight training required.

Teaching Point 2 — **Explain the Prerequisites and Training Needed to Become a Search and Rescue (SAR) Technician in the CF**

Time: 5 min — Method: Interactive Lecture

PREREQUISITES

Non-Commissioned Members

The SAR Technician (SAR Tech) is a non-commissioned member trade. In other words, there are no officers who are SAR Techs. As such, the highest rank that anyone in this trade can achieve is Chief Warrant Officer. Normally, personnel in this trade are Master Corporals or Sergeants.

Remuster

SAR Tech is different than most other trades in the CF because applicants must already be active members of the CF. This is called an occupational transfer or remuster. A civilian cannot apply for this trade. The pre-selection phase of the SAR Tech training includes Survival, Evasion, Resistance and Escape (SERE) as well as navigation. Physical fitness is also evaluated. Though it is not a requirement, applicants often come from trades that are similar in some way to SAR Techs, such as:

- medical technician,
- clearance diver, and
- jump qualified combat soldier.

TRAINING PROGRESSION

Canadian Forces School of Search and Rescue (CFSSAR)

Once the applicant reaches CFSSAR, located at CFB Comox, B.C., they undergo an intensive training program centred on the idea of penetrating and operating in remote, inaccessible areas of Canada for the purpose of rendering immediate assistance and life-sustaining medical care.

Units of Deployment

Once a SAR Tech has graduated from CFSSAR, they are posted to one of several SAR squadrons across Canada. These include:

- 442 Squadron located at 19 Wing Comox, B.C.,
- 417 Squadron located at 4 Wing Cold Lake, Alta.,
- 435 Squadron located at 17 Wing Winnipeg, Man.,
- 424 Squadron located at 8 Wing Trenton, Ont.,
- 413 Squadron located at 14 Wing Greenwood, N.S.,
- 103 Squadron located at 9 Wing Gander, Nfld., and
- 444 Squadron located at 5 Wing Goose Bay, Nfld.

SAR Techs may also be posted to CFSSAR as instructors.

Give each cadet a handout of Annex H.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

Q1. What is the biggest difference between applying for SAR Tech compared to other trades?

Q2. What is the highest rank within the SAR technician trade?

Q3. What is the central focus of the training that a SAR Tech goes through?

ANTICIPATED ANSWERS

A1. Applicants must already be serving members of the CF.

A2. Chief Warrant Officer.

A3. Penetrating and operating in remote, inaccessible areas of Canada for the purpose of rendering immediate assistance and life-sustaining medical care.

Teaching Point 3 **Explain the Prerequisites and Training Needed to Become an Aircraft Technician in the CF**

Time: 10 min Method: Interactive Lecture

PREREQUISITES

Eligibility Requirements

Applicants for any of the aircraft technician trades must first meet the basic eligibility requirements for the CF, which is to be a Canadian citizen at least 17 years old with parental/guardian consent.

Applicants for the aircraft technician trade must also have completed grade twelve and have suitable physical endurance, eye-hand coordination, and aptitude for mechanics or electronics.

Non-Commissioned Member

This is another non-commissioned member career. This means that no post-secondary education is required, though a college diploma related to this career field would be beneficial.

TRAINING PROGRESSION

Basic Military Qualification Course

After enrolment, members are sent to St. Jean, Que. for a 13 week Basic Military Qualification (BMQ) course. This covers all of the basic information and skills that a member will require in order to function as a member of the CF.

Canadian Forces School of Aerospace and Technical Engineering (CFSATE)

After the completion of BMQ, candidates will continue on to Basic Military Occupational Training (BMOT). Depending on which trade members chose, they may go to the CF School of Aerospace Technology and Engineering (CFSATE) in Borden, Ont. or to the CF School of Communications and Electronics (CFSCE) in Kingston, Ont. The length of that training will vary from 30 to 54 weeks.

Different Trades Qualifications

During the selection process, applicants choose their specific trade. Three of the more common trades include:

- **Aviation Systems Technician (AVN Tech).** The AVN Tech services and maintains CF aircraft, to include:
    - propulsion system,
    - airframe system,
    - electrical system,
    - weapon system, and
    - life support equipment.

- **Avionics Systems Technician (AVS Tech).** The AVS Tech maintains the electronics systems in the aircraft, to include:
  - automatic flight control systems,
  - navigation systems,
  - airborne communication systems,
  - power generation and distribution,
  - lighting systems, and
  - radar systems.
- **Aircraft Structures Technician (ACS Tech).** The ACS Tech is responsible for the repair of the aircraft structures, to include:
  - metal and composite repair,
  - refinishing,
  - painting,
  - machining, and
  - welding.

Once the trade has been selected, the candidate will participate in courses offered at either CFSATE or CFSCE. These include Trade Qualification (TQ) courses 1 to 5. The TQ system is similar to the apprenticeship program that a civilian Aircraft Maintenance Engineer (AME) goes through, though in this case the training standards are different. Once the candidate has completed TQ 3 they are able to work independently on CF aircraft that they have been familiarized with. Completion of TQ 5 allows the member to be a supervisor and trainer.

Give each cadet a handout of Annex I.

CONFIRMATION OF TEACHING POINT 3

QUESTIONS

Q1. What are the three minimum requirements for enrolling as an aircraft technician?

Q2. What are the three common trades in the aircraft maintenance field of the CF?

Q3. Which two schools will personnel go to after completion of BMQ?

ANTICIPATED ANSWERS

A1. 17 years old, Canadian citizen, and minimum grade 12 education.

A2. AVN Tech, AVS Tech, and ACS Tech.

A3. CFSATE and CFSCE.

END OF LESSON CONFIRMATION

QUESTIONS

Q1. Name the three entry plans available to applicants who wish to be pilots in the CF.

Q2. What is the biggest difference between applying to be a SAR Tech compared to other trades?

Q3. What are the three minimum requirements for enrolling as an aircraft technician?

ANTICIPATED ANSWERS

A1. ROTP, DEO, and CEOTP.

A2. Applicants must already be serving members of the CF.

A3. 17 years old, Canadian citizen, and minimum grade 12 education.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Being familiar with the career opportunities in CF aviation will ensure that the cadets interested in applying for the CF know what will be required and expected of them in future years.

INSTRUCTOR NOTES/REMARKS

This lesson may be delivered by a member of the CF serving in the field of aviation.

REFERENCES

A3-051 Canadian Forces. (2007). *Canadian Forces Recruiting*. Retrieved October 17, 2007, from http://www.forces.ca/v3/engraph/home/home.aspx?bhcp=1.

A3-053 Canadian Forces. (2007). *Canadian Forces School of Search and Rescue*. Retrieved October 30, 2007, from http://www.airforce.forces.gc.ca/19wing/squadron/cfssr_e.asp.

A3-054 Canadian Forces. (2007). *Canadian Forces Recruiting–Pilot*. Retrieved October 30, 2007, from http://www.recruiting.forces.ca/v3/engraph/jobs/jobs.aspx?id=32&bhcp=1.

A3-055 Canadian Forces. (2007). *Canadian Forces Recruiting–ACS*. Retrieved October 30, 2007, from http://www.recruiting.forces.ca/v3/engraph/jobs/jobs.aspx?id=565&bhcp=1.

A3-056 Canadian Forces. (2007). *Canadian Forces Recruiting–AVN*. Retrieved October 30, 2007, from http://www.recruiting.forces.ca/v3/engraph/jobs/jobs.aspx?id=514&bhcp=1.

A3-057 Canadian Forces. (2007). *Canadian Forces Recruiting–AVS*. Retrieved October 30, 2007, from http://www.recruiting.forces.ca/v3/engraph/jobs/jobs.aspx?id=526&bhcp=1.

A3-059 Canadian Forces. *Prepare for Takeoff as a Pilot* (DVD). Ottawa: CFRG Multimedia Services.

THE PURPOSE OF CANADA'S AIR FORCE

SERVING CANADIANS

From coast to coast, the air force is at work serving Canadians every day at home, through 13 Wings (air force bases) stationed across the country. Examples of important services include:

- defending Canadian airspace;
- flying search and rescue missions;
- intercepting aircraft or ships; and
- providing relief during national disasters, such as:
    - floods, and
    - ice storms.

In recent years, the well organized, efficient force that is the Canadian military has been called upon to fight a different sort of battle – confronting the whims of nature. Delivering disaster relief to Canadians hit by ice storms, floods, forest fires or other natural disasters often requires a massive coordination effort, a task well suited to the organizational skills and communications expertise of the Canadian military.

Evacuation of injured or threatened people, ferrying in supplies and vital equipment, flying reconnaissance missions to keep rescue and civilian forces informed of developments – these are the tasks carried out by the air force. They are also deployed on the ground during such emergencies, helping wherever needed. Sometimes this means working to restore power and heat, distributing food and medical assistance, or setting up emergency shelters and helping people reach them.

Testing the load limits of a Hercules by evacuating a fire-threatened village, dropping logs on ice-encrusted power lines from Griffon helicopters during an ice storm, using the Sea King's submarine detection equipment to probe flooded areas in Manitoba – the air force's people, equipment and ingenuity have been brought to bear to help Canadians cope when nature rages.

Some of the air force's research discoveries have benefits for many people. For example, studies on flight in adverse weather conditions have yielded information useful to commercial airlines.

NORTH AMERICA

Canada faces no direct traditional military threat and the world's present conflicts are far from our shores. Even so, with a quality of life second to none in the world, Canada must continue to confront challenges to its sovereignty in peacetime. We must also retain the ability to quickly call upon forces capable of defending our country should the need arise.

A vital part of our defence strategy is our partnership with the US in the North American Aerospace Defence Command (NORAD). The air force is the key component in Canada's NORAD contribution, providing the eyes and ears of our early warning and surveillance activities over North American airspace.

Since 1958, Canada has partnered with the US in defending the airspace of North America. Twenty-four hours a day, every day of the year, Canadian and US air force personnel serving with NORAD keep a watchful eye on all air approaches to the continent. NORAD's critical mission is to detect, warn of and intercept an attack – whether by aircraft, missiles or space vehicles.

ON GUARD

Canada is a country rich in natural resources and quality of life. Canadians are firmly committed to protecting both. The air force plays a pivotal role in protecting Canada's sovereignty by guarding against those who would take advantage of its vast size, miles of coastline and undefended border to carry out illegal or harmful activities.

SERVING THE WORLD

Our combat-ready forces take an active role in multinational missions, representing Canada's interests on the world stage and helping to maintain global stability. The air force flies peace support missions and conveys relief workers, emergency food and medical supplies to scenes of natural disasters or where armed conflicts have left little behind – alleviating suffering and saving lives. The global neighbours we help often become valuable trading partners. Service to the world includes:

- peace support,
- humanitarian aid,
- international cooperation, to include:
    - international competitions,
    - international exercises, and
    - confidence building measures; and
- space technologies, to include:
    - supporting NORAD; and
    - supporting space exploration with the Canadian Space Agency.

THE STRUCTURE OF CANADA'S AIR FORCE

ORGANIZATIONS

The organizational focus of Canada's air force is Air Command. Formed in September 1975, it was a recognizable successor to the Royal Canadian Air Force (RCAF) which, along with the Royal Canadian Navy and Canadian Army, ceased to exist as a separate service on February 1, 1968 under the provisions of Canadian Forces unification.

THE CHIEF OF THE AIR STAFF (CAS)

The Chief of the Air Staff acts as both an advisor to the Chief of the Defence Staff on air force issues as well as Commander of Air Command.

The Air Staff is organized into 14 functional directorates:

- The Directorate of Air Public Affairs,
- The Directorate of Air Strategic Plans,
- The Directorate of Air Force Employment,
- The Directorate of Air Requirements,
- The Directorate of Air Comptrollership and Business Management,
- The Directorate Air Personnel Production,
- The Directorate of Air Program,
- The Directorate Air Staff Coordination,
- The Directorate of Air Staff Operational Research,
- The Directorate of Flight Safety,
- The Director Air Contracted Force Generation,
- The Directorate of Air Personnel Management and Services,
- The Directorate of Air Civilian Management Services, and
- The Directorate Air Personnel Strategy.

CANADIAN FORCES AEROSPACE WARFARE CENTRE (CFAWC)

With its mission of ensuring the evolution of Canadian aerospace power and as a key element of air force transformation, CFAWC provides the air force with the knowledge to acquire the right capabilities and develop appropriate doctrine to successfully conduct aerospace operations as the air force moves into the future.

1 CANADIAN AIR DIVISION/CANADIAN NORAD REGION (1 Cdn Air Div/CANR)

The Commander of 1 Cdn Air Div/CANR exercises command and control over a multitude of formations and units assigned to them:

- NORAD assigned assets in CANR,
- 1 Cdn Air Div assigned assets,
- Canada Command assigned air assets, and

- Operational Airworthiness Authority for all CF air assets including National Cadet Program air assets.

The concept of “wings” was re-introduced in 1993 to reflect the air force organizational structure. Originally a wing was a group of two or more squadrons, not necessarily from the same base, but with a common purpose led by a Wing Commander. Today’s wings represent the grouping of various units, both operational and support, under a single tactical commander reporting to the operational commander. Ten wings also include a Canadian Forces Base along with other operational and support units.

Wings vary in size from several hundred personnel, such as at 9 Wing Gander and 5 Wing Goose Bay, to larger wings, such as 8 Wing Trenton, 4 Wing Cold Lake and 14 Wing Greenwood with several thousand personnel. The following wings report operationally to 1 Cdn Air Div:

- 1 Wing Kingston is the home of the Griffon helicopter. It provides airlift support of troops and equipment anywhere in the world. Its six tactical helicopter and training squadrons are spread out across the country.
- 3 Wing Bagotville is located in Quebec’s Saguenay region. It provides general purpose, multi-role, combat capable forces in support of domestic and international roles of Canada’s air force. It also provides search and rescue resources.
- 4 Wing Cold Lake is the busiest fighter base in Canada. It provides general purpose, multi-role, combat capable forces in support of domestic and international roles of Canada’s air force.
- 5 Wing Goose Bay is the site of Allied tactical flying training in Canada. It is home to permanent detachments from Britain’s Royal Air Force, the German Luftwaffe, the Royal Netherlands Air Force and the Italian Aeronautic Militaire.
- 8 Wing Trenton is the heart of Canada’s air mobility forces – from delivering supplies to the high Arctic (CFS Alert) to airlifting troops and equipment worldwide. It is also responsible for search and rescue in central Canada and home to the famous Skyhawks with the Canadian Parachute Centre.
- 9 Wing Gander is home of the 103 Search and Rescue (SAR) Squadron, providing full-time SAR services to Newfoundland and Labrador.
- 12 Wing Shearwater is the centre of naval aviation in Canada. Home of the CH-124 Sea King helicopter, 12 Wing supports the Navy with up to nine helicopter air detachments for international and domestic operations.
- 14 Wing Greenwood is nestled in the heart of Nova Scotia’s Annapolis Valley. Aurora crews conduct sovereignty and surveillance missions over the Atlantic Ocean, while search and rescue capabilities are maintained 365 days of the year.
- 15 Wing Moose Jaw is the site of the NATO Flying Training Program in Canada (NFTC). This southern Saskatchewan city is also home to the Snowbirds, Canada’s world famous aerobatic team.
- 16 Wing Borden is the birthplace of the RCAF. The largest training wing in the Canadian Forces, 16 Wing’s schools offer air force technical training and professional development.
- 17 Wing Winnipeg is comprised of three squadrons and six schools. It also provides support to the Central Flying School.
- 19 Wing Comox is based on Vancouver Island. Its Aurora crews keep watch over the Pacific Ocean while its search and rescue teams regularly locate downed aircraft in some of Canada’s roughest terrain and yet another squadron helps train fighter pilots in tactical procedures.
- 22 Wing North Bay represents one of Canada’s major contributions to the NORAD agreement. From its underground complex at the Sector Air Operations Centre, technicians watch over Canada’s airspace 24 hours a day, using state-of-the-art sensors, computers and communications equipment.

CANADA'S AIR RESERVE

The Air Reserve is an important part of the Air Force team. Reservists are ordinary citizens who volunteer to devote a portion of their free time to military service. In the Air Force, reservists serve as partners with members of the Regular Force to accomplish the Air Force mission. Air Reservists are actively involved in the vast spectrum of Air Force activities including:

- surveillance and control of Canadian airspace;
- worldwide airlift of Canadian Forces personnel and material;
- support to the navy and army;
- support to other government departments;
- search and rescue; and
- humanitarian operations.

"Canada's Air Force: Air Force Home", Structure: The Air Reserve: Air Reserve Locations, 2008. Retrieved February 25, 2008, from http://www.airforce.forces.gc.ca/site/index_e.asp

Figure 11B-1 Air Force Reserve Operations

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AIRCRAFT OF CANADA'S AIR FORCE

CP-140 AURORA

"Canada's Air Force", 2007, Image Gallery Photo Search. Retrieved March 8, 2008, from http://www.airforce.forces.gc.ca/site/imagery/search_e.asp

Figure 11C-1 CP-140 Aurora

As Canada's only strategic maritime surveillance aircraft, the CP-140 Aurora is often used to patrol Canada's coastlines, safeguarding our waters from foreign threats.

The sister aircraft to the CP-140 Aurora, the CP-140A Arcturus monitors Canada's east coast. This long-range patrol aircraft protects our coastlines from foreign threats and illegal activity. The Arcturus shares the same airframe as the Aurora, but is not equipped for anti-submarine warfare (ASW). Without the Aurora's heavy ASW electronics, the Arcturus is a lighter and more fuel-efficient aircraft.

CC-115 BUFFALO

"Canada's Air Force", 2007, Image Gallery Photo Search. Retrieved March 8, 2008, from http://www.airforce.forces.gc.ca/site/imagery/search_e.asp

Figure 11C-2 CC-115 Buffalo

One of Canada's primary search and rescue (SAR) aircrafts, the CC-115 Buffalo will fly in almost any weather. The agile Buffalo can takeoff and land on even the most rugged terrain and in areas as short as a soccer field. The CC-130 Hercules now performs many of Eastern Canada's SAR operations, but the short takeoff and landing (STOL) capabilities of the CC-115 have kept it in use in the Rocky and Coastal Mountain ranges. All six Canadian Forces' CC-115s are employed by 442 Transport and Rescue Squadron out of Comox, B.C.

CH-149 CORMORANT

"Canada's Air Force", 2007, Image Gallery Photo Search. Retrieved March 8, 2008, from http://www.airforce.forces.gc.ca/site/imagery/search_e.asp

Figure 11C-3 CH-149 Cormorant

In this picture, a CH-149 Cormorant search and rescue helicopter taxies through the rinse facility (bird bath) after a flight over salt water.

The Canadian Air Force's only dedicated search and rescue (SAR) helicopter, the rugged CH-149 Cormorant can operate in even the most severe conditions, making it ideal for Canada's challenging geography and climate.

CH-146 GRIFFON

"Canada's Air Force", 2007, Image Gallery Photo Search. Retrieved March 8, 2008, from http://www.airforce.forces.gc.ca/site/imagery/search_e.asp

Figure 11C-4 CH-146 Griffon

The Griffon is used at home and abroad for SAR missions, surveillance and reconnaissance, casualty evacuation and counter-drug operations. The helicopter has also played a key role in many national and international humanitarian relief operations.

CH-124 SEA KING

"Canada's Air Force", 2007, Image Gallery Photo Search. Retrieved March 8, 2008, from http://www.airforce.forces.gc.ca/site/imagery/search_e.asp

Figure 11C-5 CH-124 Sea King

The Sea King's compact design boasts a fold-up rotor and tail that help it to fit on even the smallest warship's deck and its amphibious hull gives it the ability to land on water. The CH-124 is powered by two turboshaft engines and is equipped with subsurface acoustic detection equipment and homing torpedoes. Employing these, the Sea King lifts off from destroyers and frigates to locate and destroy submarines. The helicopter also plays a vital role in international peacekeeping operations.

CH-148 CYCLONE

"Canada's Air Force", 2007, Image Gallery Photo Search. Retrieved March 8, 2008, from http://www.airforce.forces.gc.ca/site/imagery/search_e.asp

Figure 11C-6 CH-148 Cyclone

As of 2009, the Department of National Defence has a new force in the skies: the CH-148 Cyclone replaced the CH-124 Sea King as Canada's main ship-borne maritime helicopter. This twin-engine helicopter is compatible with the latest high-tech frigates and includes several new safety features. Its aluminum and composite airframe is built with lightning-strike and high-intensity radio frequency (RF) pulse protection.

The Cyclone has day-and-night capability, can fly in all weather conditions and in temperatures ranging from -40 °C to +55 °C. With a maximum speed of 306 km/h, the CH-148 is almost twice as fast as the Sea King. The Cyclone can also fly 925 km without refuelling – more than three times farther than its predecessor.

CT-142 DASH-8

"Canada's Air Force", 2007, Image Gallery Photo Search. Retrieved March 8, 2008, from http://www.airforce.forces.gc.ca/site/imagery/search_e.asp

Figure 11C-7 CT-142 Dash-8

Navigators from around the world come to Canada to train on the CT-142 Dash-8. At the Canadian Forces Air Navigation School (CFANS), this twin turboprop aircraft is used to teach students aerial navigation and tactics.

Designed and produced in Canada, the CT-142 is a conversion of the popular Dash-8 airliner. It was adapted for navigation training by manufacturer Bombardier Inc. in the late 1980s.

CT-155 HAWK

"Canada's Air Force", 2007, Image Gallery Photo Search. Retrieved March 8, 2008, from http://www.airforce.forces.gc.ca/site/imagery/search_e.asp

Figure 11C-8 CT-155 Hawk

The CT-155 Hawk was selected for the NATO Flying Training in Canada (NFTC) program because of its similarities to frontline fighter aircraft. Student pilots graduate from the CT-156 Harvard II to this highly advanced jet trainer. Its Rolls-Royce turbofan engine generates more than 2 700 kg (6 000 lbs) of thrust and powers the jet to supersonic speeds.

NFTC students train on the Hawk during the program's final stage. Once they have logged 125 flight hours, Canada's student fighter pilots are ready to join 410 Squadron, the Operational Training Unit, which flies CF-18 Hornets.

CF-18 HORNET

"Canada's Air Force", 2007, Image Gallery Photo Search. Retrieved March 8, 2008, from http://www.airforce.forces.gc.ca/site/imagery/search_e.asp

Figure 11C-9 CF-18 Hornet

The Hornet is commonly referred to as CF-18, although the official technical designation is CF-188.

A versatile, world-class fighter aircraft, the supersonic CF-18 Hornet can engage both ground and aerial targets. Its twin engines generate enough thrust to lift 24 full-size pick-up trucks off the ground. As the Canadian Air Force's frontline multi-role fighter, the CF-18 is used for air defence, air superiority, tactical support, training, aerobatic demonstration, and aerospace testing and evaluation. The aircraft is equipped with a sophisticated radar system that can track targets in all weather and from great distances.

CC-150 POLARIS

"Canada's Air Force", 2007, Image Gallery Photo Search. Retrieved March 8, 2008, from http://www.airforce.forces.gc.ca/site/imagery/search_e.asp

Figure 11C-10 CC-150 Polaris

A multi-purpose, long-range jet, the CC-150 Polaris can be converted for passenger, freight or medical transport, or a combination of these configurations. Carrying 194 passengers, or 32 000 kg, the massive aircraft can still reach speeds of up to Mach 0.84. All five of the Canadian Forces' CC-150s are stationed at 8 Wing Trenton.

CT-114 TUTOR

"Canada's Air Force", 2007, Image Gallery Photo Search. Retrieved March 8, 2008, from http://www.airforce.forces.gc.ca/site/imagery/search_e.asp

Figure 11C-11 CT-114 Tutor

The distinctive roar of its turbojet engine announces that the celebrated CT-114 Tutor is passing overhead. As the aircraft flown by the Snowbirds – Canada's famed Air Demonstration team – the nimble Tutor is a Canadian Air Force icon.

CC-144 CHALLENGER

"Canada's Air Force", 2007, Image Gallery Photo Search. Retrieved March 8, 2008, from http://www.airforce.forces.gc.ca/site/imagery/search_e.asp

Figure 11C-12 CC-144 Challenger

The CC-144 Challenger, DND's twin-engine, long-range executive jet, offers rapid air transportation to Canadian and international VIPs. With a range of up to 5 930 km and a maximum speed of Mach 0.83, the Challenger can quickly deliver passengers almost anywhere in the world.

CC-177 GLOBEMASTER

"Canada's Air Force", 2007, Image Gallery Photo Search. Retrieved March 8, 2008, from http://www.airforce.forces.gc.ca/site/imagery/search_e.asp

Figure 11C-13 CC-177 Globemaster

Rapid, reliable and flexible, the strategic and tactical CC-177 Globemasters have just what it takes to transport large amounts of passengers and equipment over long distances in response to domestic emergencies or international crises. Boeing's C-17 (officially designated as the CC-177 in Canada) helps provide everything from rapid strategic delivery of troops to cargo transport of oversized combat equipment from coast to coast and to anywhere in the world, including to our troops overseas.

CC-130 HERCULES

"Canada's Air Force", 2007, Image Gallery Photo Search. Retrieved March 8, 2008, from http://www.airforce.forces.gc.ca/site/imagery/search_e.asp

Figure 11C-14 CC-130 Hercules

Prized for its ruggedness and performance in adverse conditions, this four-engine turboprop can carry up to 92 combat troops. It also keeps other aircraft in the skies, carrying more than 9 000 kg (20 000 lbs) of fuel for tactical air-to-air refuelling (AAR). The Hercules is used by Canadian Forces to airlift troops, equipment and cargo in a tactical environment, as well as for SAR operations and medical evacuations. In the tactical AAR role, it can transfer between 500 and 1 000 kg (1 000 and 2 000 lbs) of fuel per minute, and can refuel a CF-18 Hornet in less than five minutes.

The aircraft has a maximum range of nearly 10 000 km and a cruising speed of 556 km/h. Capable of STOL on unprepared runways, the aircraft can respond to SAR operations on almost any terrain and under the most challenging weather conditions.

CT-156 HARVARD II

"Canada's Air Force", 2007, Image Gallery Photo Search. Retrieved March 8, 2008, from http://www.airforce.forces.gc.ca/site/imagery/search_e.asp

Figure 11C-15 CT-156 Harvard II

The aircraft is ideally suited to help new pilots move seamlessly from basic flight training to high-performance jet training. Its performance, cockpit layout and ejection protocols mimic those of the CT-155 Hawk jet trainer.

CC-138 TWIN OTTER

"Canada's Air Force", 2007, Image Gallery Photo Search. Retrieved March 8, 2008, from http://www.airforce.forces.gc.ca/site/imagery/search_e.asp

Figure 11C-16 CC-138 Twin Otter

The highly adaptable CC-138 Twin Otter is well suited for Canada's ever-changing northern climate and terrain. This short takeoff and landing (STOL) utility transport aircraft can land on water, land, snow and ice. Powered by twin turboprop engines, the Twin Otter is highly manoeuvrable and has a service ceiling of over 8 000 m. It can be outfitted with wheels, skis or floats to land on virtually any surface. The CC-138 is used in SAR missions, and transport and support roles to the CF's northern operations. It can carry up to 20 passengers or 2 999 kg of payload, and has a range of 1 427 km. The CF's four Twin Otters are based in Yellowknife, N.W.T.

ACTIVITIES OF CANADA'S AIR FORCE

The principle activities of Canada's air force involve operations, training and exercises.

OPERATIONS

Canada's air force participates in many aspects of operations in which the Department of National Defence is involved. Examples of Canada's air force operations have included:

OPERATION	DEPLOYED AIR FORCE PERSONNEL
OP ALERT **Ellesmere Island, Alert**	39
Canadian Contribution to the International Security Assistance Force **TASK FORCE AFGHANISTAN** **Afghanistan**	470
North Atlantic Treaty Organization (NATO) Headquarters Sarajevo (NHQSa) **OP BRONZE** **Bosnia-Herzegovina**	1
Western Sudan (African Union) **OP AUGURAL** **Darfur**	1
Multinational Force and Observers (MFO) **OP CALUMET** **Sinai**	9
CF Contribution to the United Nations Stabilization Mission in Haiti Headquarters (MINUSTAH HQ) **OP HAMLET** **Haiti**	1
United Nations Mission in Sudan (UNMIS) **OP SAFARI** **Sudan**	6

"Canada's Air Force: Air Force Home", 2008, Operations and Training: Operations. Retrieved February 25, 2008, from http://www.airforce.forces.gc.ca/site/index_e.asp

Figure 11D-1 Air Force Operations

TRAINING

Canada's air force shares its expertise with other air forces around the world, offering basic and advanced training of all types. In recent years, it has marketed this expertise to military pilots from NATO and other allied countries. Shared training includes:

- Goose Bay Foreign Military Training,
- NATO Flying Training in Canada (NFTC),
- Military Pilot Training,
- Air Navigation and Mission Crew Qualification Training, to include:
    - Air Navigation and Mission Crew Qualification Training,
    - Basic Air Navigator Course (BANC), and
    - Basic Airborne Electronic Sensor Operator Course,

- Simulator training, to include:
    - Helicopter Tactical Aviation Training,
    - CP 140 Aurora Full Flight Simulator (FFS),
    - CH146 Griffon (Bell 412) Operational Flight Trainer (OFT), and
    - C130-H Hercules Operational Flight Trainer (OFT),
- Aviation Operations and Coordination,
- Aerospace Engineering,
- Aerospace Systems Course,
- High Sustained +Gs Training, and
- Search and Rescue Training.

EXERCISES

Exercises are structured scenarios that give air force personnel and leaders the opportunity to sharpen their skills and test new tactics. Many types of exercises are conducted on an annual basis. Students and leaders taking training courses may have an exercise as one component of the course or as a final component or test. Exercises can also provide a tool for the air force to update and reinforce procedures and tactics for members who are working demanding environments, such as combat or search and rescue.

In a larger scenario, exercises give the air force an opportunity to collaborate with the Canadian Army and Navy, as well as the militaries of other nations. International participation helps build cooperation, sharpen skills beyond our boundaries and develop new tactical procedures, all of which increases the professional capability of our air force.

Exercise MAPLE FLAG is normally a six-week international air combat exercise held annually at 4 Wing Cold Lake, Alta. Often, more than 3 000 military personnel participate in Exercise MAPLE FLAG, including:

- Canadian Forces,
- German Air Force,
- French Air Force,
- Republic of Singapore Air Force,
- NATO AWACS (airborne early warning and control contingent),
- Royal Netherlands Air Force,
- Royal New Zealand Air Force,
- United States Navy, and
- United States Air Force.

Search and Rescue (SAR) Exercises

The annual Search and Rescue exercise (SAREX) is used to exchange information and experiences gained, answer issues and update the SAR community on changes and updates that have occurred since the last SAREX. In addition, it provides a platform for gathering SAR-related research and data in live exercise scenarios.

The Civilian Air Search And Rescue Association (CASARA) also competes in SAREX.

SAREX events include:

- Parachuting accuracy event,
- Medical event,
- Search event,
- Rescue event,
- SAR equipment maintenance, and
- Bell ringer (a precision parachute event for the more experienced SAR Techs).

Canadian Forces (CF) and SAR

Canada's SAR teams operate with the following aircraft:

- The Hercules has a long range and high speed and is able to act as an airdrop for emergency equipment and supplies and bring SAR Techs to the scene.
- The Buffalo has good mountain-flying capabilities, making it ideal for West Coast SAR operations. It can fly in all weather conditions and in areas where short, unprepared strips provide the only takeoff and landing surfaces. The Buffalo has been known to land in areas as short as a soccer field.
- The Cormorant helicopter, a powerful three-engine aircraft, has long-range capabilities and a large cargo area, which can carry up to 12 stretchers or a load of 5 000 kg. SAR Techs are often hoisted from the helicopter to pick up patients in remote areas or off ships.
- The Griffon helicopter, equipped with forward-looking infrared radar, is able to seek out aircraft and personnel by the heat they give off, making it an ideal search aircraft. It is also used to provide aero-medical support and casualty evacuation.

The air force also relies on other aircraft to assist in SAR operations. In rescues at sea, the Aurora maritime patrol aircraft and Sea King helicopters can be called in to provide support.

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RESEARCH FACTS ABOUT CANADA'S AIR FORCE – WORKSHEET

Q1. How many directorates make up the Chief of the Air Force Staff? (Structure)

Answer: _____

Q2. What is the principle mission of the CC-115 Buffalo and the CH-149 Cormorant? (Aircraft)

Answer: _____

Q3. In which region did Canada's air force take part in Op Augural? (Activities)

Answer: _____

Q4. What are two situations in which Canada's air force provides relief for Canadians? (Purpose)

Answer: _____

Q5. What is the principle mission of the CT-155 Hawk and the CT-156 Harvard II? (Aircraft)

Answer: _____

Q6. How many air force wings are there across Canada? (Structure)

Answer: _____

Q7. What are the three main groups of activities of Canada's air force? (Activities)

Answer: _____

Q8. Which civilian organization competes in SAREX? (Activities)

Answer: _____

Q9. What two organizations does Canada's air force support with space technologies? (Purpose)

Answer: _____

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RESEARCH FACTS ABOUT CANADA'S AIR FORCE – ANSWER KEY

A1. 14.

A2. Search and Rescue.

A3. Darfur.

A4. Floods and ice storms.

A5. Training.

A6. 13.

A7. Operations, training and exercises.

A8. CASARA.

A9. NORAD and the Canadian Space Agency.

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PREREQUISITES AND TRAINING NEEDED TO BECOME A PILOT IN THE CANADIAN FORCES

ENTRY PLANS

There are three entry plans for pilot applicants, with differing prerequisites. All applicants must meet the minimum vision requirements to become a pilot. The three entry plans are:

- **Regular Officer Training Plan (ROTP)**. ROTP is for those applicants who are going into university or are part way through a degree program. In this entry plan, applicants can attend Royal Military College (RMC) or another Canadian university. This education is paid for, but it comes with a period of obligatory service in the Regular component of the CF.
- **Direct Entry Officer (DEO)**. DEO is for applicants who have already attained a university degree. CF preference is for pilots to have a math or physics oriented education, which will assist in learning and understanding flying theory.
- **Continuing Education Officer Training Plan (CEOTP)**. CEOTP is for applicants who wish to apply immediately after graduation from high school but do not want to enrol in university right away. Still expected to attain a university degree, they do not have to complete it in a set time except they must complete it before leaving the military.

VISION STANDARDS

In order to become a pilot in the CF, applicants must meet educational, physical and medical requirements. These are similar to requirements needed by other officers in the CF. One major difference is that applicants must have 20/20 vision, or be able to correct their vision to 20/20.

TRAINING PROGRESSION

Basic Officer Training Course (BOTC)

Once an applicant has been selected, they will attend the 13-week Basic Officer Training Course (BOTC) in St. Jean, Que. (QC). This course teaches all of the basic skills that are needed by an officer in the CF. The applicant must pass this course in order to progress to the next training phase.

SECOND LANGUAGE TRAINING

After BOTC, trainees attend second language training. This can last up to seven months depending upon personal proficiency. This course is designed to ensure that all regular force officers in the CF have the ability to communicate in both the official languages of Canada.

Primary Flight Training (PFT) in Portage la Prairie

Primary Flight Training (PFT) is the next stage in the training cycle. This occurs at Portage la Prairie, Man. PFT includes 40 training days learning to fly on the Grob 120A trainer.

After completion of PFT candidates will continue on to three supplementary courses, including:

- Aeromedical Training (AMT) in Winnipeg, Man.,
- Basic Land Survival Course (BLSC) in Winnipeg, Man., and
- Basic Sea Survival Course (BSSC) in Comox, B.C.

North Atlantic Treaty Organization (NATO) Flight Training Centre at 15 Wing

Basic Flying Training (BFT) is held at the NATO Flight Training Centre (NFTC) in Moose Jaw, Sask. Candidates learn to fly the CT-155 Harvard II as part of an eight month course that consists of air and classroom instruction

in flying and officer development. At the end of this course candidates are selected for Rotary Wing, Multi-engine, or Fast Jet training.

The Advanced Flying Training (AFT) course is specialty training based on the candidates selection at the end of BFT. Helicopter pilots return to Portage la Prairie for the Basic Helicopter Course on the Bell Jet Ranger. Multi-engine pilots also return to Portage la Prairie where they will fly the King Air. Jet pilots will remain at NFTC to conduct additional training on the Harvard II progressing to the CT-156 Hawk.

Operational Training Units at Various Locations Across Canada

Regardless of where candidates go for AFT, upon completion of the course they will be awarded their pilot wings and posted to an Operational Training Unit (OTU) where they will begin seven years of obligatory service.

PREREQUISITES AND TRAINING NEEDED TO BECOME A SEARCH AND RESCUE TECHNICIAN IN THE CANADIAN FORCES

The SAR Technician (SAR Tech) is a non-commissioned member trade. In other words, there are no officers who are SAR Techs. As such, the highest rank that anyone in this trade can achieve is Chief Warrant Officer. Normally, personnel in this trade are Master Corporals or Sergeants.

REMUSTER

SAR Tech is different than most other trades in the CF because applicants must already be active members of the CF. This is called an occupational transfer or remuster. A civilian cannot apply for this trade. The pre-selection phase of the SAR Tech training includes Survival, Evasion, Resistance and Escape (SERE) as well as navigation. Physical fitness is also evaluated. Though it is not a requirement, applicants often come from trades that are similar in some way to SAR Techs, such as:

- medical technician,
- clearance diver, and
- jump qualified combat soldier.

TRAINING PROGRESSION

Canadian Forces School of Search and Rescue (CFSSAR)

Once the applicant reaches CFSSAR, located at CFB Comox, B.C., they undergo an intensive training program centred on the idea of penetrating and operating in remote, inaccessible areas of Canada for the purpose of rendering immediate assistance and life-sustaining medical care.

Units of Deployment

Once a SAR Tech has graduated from CFSSAR, they are posted to one of several SAR squadrons across Canada. These include:

- 442 Squadron located at 19 Wing Comox, B.C.,
- 417 Squadron located at 4 Wing Cold Lake, Alta.,
- 435 Squadron located at 17 Wing Winnipeg, Man.,
- 424 Squadron located at 8 Wing Trenton, Ont.,
- 413 Squadron located at 14 Wing Greenwood, N.S.,
- 103 Squadron located at 9 Wing Gander, Nfld., and
- 444 Squadron located at 5 Wing Goose Bay, Nfld.

SAR Techs may also be posted to CFSSAR as instructors.

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PREREQUISITES AND TRAINING NEEDED TO BECOME AN AIRCRAFT TECHNICIAN IN THE CANADIAN FORCES

PREREQUISITES

Eligibility Requirements

Applicants for any of the aircraft technician trades must first meet the basic eligibility requirements for the CF, which is to be a Canadian citizen at least 17 years old with parental/guardian consent.

Applicants for the aircraft technician trade must also have completed grade twelve and have suitable physical endurance, eye-hand coordination, and aptitude for mechanics or electronics.

Non-Commissioned Member

This is another non-commissioned member career. This means that no post-secondary education is required, though a college diploma related to this career field would be beneficial.

TRAINING PROGRESSION

Basic Military Qualification Course

After enrolment, members are sent to St. Jean, Que. for a 13 week Basic Military Qualification (BMQ) course. This covers all of the basic information and skills that a member will require in order to function as a member of the CF.

Canadian Forces School of Aerospace and Technical Engineering

After the completion of BMQ, candidates will continue on to Basic Military Occupational Training (BMOT). Depending on which trade members chose, they may go to the CF School of Aerospace Technology and Engineering (CFSATE) in Borden, Ont. or to the CF School of Communications and Electronics (CFSCE) in Kingston, Ont. The length of that training will vary from 30 to 54 weeks.

DIFFERENT TRADES QUALIFICATIONS

During the selection process, applicants choose their specific trade. Three of the more common trades include:

- **Aviation Systems Technician (AVN Tech).** The AVN Tech services and maintains CF aircraft, to include:
    - propulsion system,
    - airframe system,
    - electrical system,
    - weapon system, and
    - life support equipment.
- **Avionics Systems Technician (AVS Tech).** The AVS Tech maintains the electronics systems in the aircraft, to include:
    - automatic flight control systems,
    - navigation systems,
    - airborne communication systems,
    - power generation and distribution,
    - lighting systems, and

- radar systems.

- **Aircraft Structures Technician (ACS Tech).** The ACS Tech is responsible for the repair of the aircraft structures, to include:
  - metal and composite repair,
  - refinishing,
  - painting,
  - machining, and
  - welding.

Once the trade has been selected, the candidate will participate in courses offered at either CFSATE or CFSCE. These include Trade Qualification (TQ) courses 1 to 5. The TQ system is similar to the apprenticeship program that a civilian Aircraft Maintenance Engineer (AME) goes through, though in this case the training standards are different. Once the candidate has completed TQ 3 they are able to work independently on CF aircraft that they have been familiarized with. Completion of TQ 5 allows the member to be a supervisor and trainer.