

[Enjoy a Career in Civil Aviation](#)

Transport Canada directly contributes to the safety and security of Canadians on a daily basis. We are responsible for strengthening the regulatory framework and overseeing the administration of regulations to support the secure conduct of all aviation activities. As part of an innovative engineering team you will work collaboratively with international industry counterparts. You will also contribute to the advancement of standards and technical advisory material that create the basis upon which aircraft are certified.

At this point in time, Civil Aviation is seeking a range of engineering candidates from junior to seasoned experts. Positions involve a diverse portfolio of projects with many aircraft types from numerous manufacturers that will call on your knowledge of existing and developing technologies.

[As an aerospace engineer:](#)

You will evaluate a variety of aerospace products, including small and large commercial airplanes and helicopters and remotely piloted aircraft and rotorcrafts. You will review proposals for projects to determine if they are technically feasible and whether they will result in safe aircraft operation and systems. You will also develop new design standards to cater for new materials and technologies, prepare specifications for the materials and processes that are to be used in the manufacturing of these products and systems, and ensure they meet quality standards.

[Salary Ranges per level \(under revision\):](#)

Engineer level 2: \$63,028 to \$72,050

Engineer level 3: \$77,247 to \$93,862

Engineer level 4: \$90,395 to \$105,427

Engineer level 5: \$103,807 to \$121,348

Engineer level 6: \$115,793 to \$134,429

[Career Opportunities:](#)

While opportunities exist for Engineers between levels 2 and 6, the majority of vacancies are for “Senior Engineer,” level 4 and will serve as a benchmark for consideration. Candidates with less experience will be considered for levels 2 and 3, and more experienced engineers will be considered for levels 4, 5, and 6 as appropriate. Below are sample requirements for current vacancies:

Education	Division	Essential Experience (level 4)	Desirable Experience
<p>B. Eng., preferably with a specialization such as aeronautical engineering and eligibility for certification in Canada.</p>	<p><u>Standards</u></p>	<p>A minimum of 3 years of experience in the design, development, testing, in-service support or certification of aeronautical products.</p> <p>Experience in the development of technical materials related to engineering activities.</p> <p>Experience in providing guidance to others on the interpretation or application of technical materials related to engineering activities.</p> <p>Experience in researching technical issues and developing policy discussions related to engineering activities</p>	<p>Design approval of aeronautical products.</p> <p>Development of regulations or standards or guidance materials related to aeronautical engineering activities.</p> <p>Providing guidance to others on the interpretation or application of regulations, standards or guidance material related to aeronautical engineering activities.</p>
	<p><u>Engineering</u></p>	<p><u>Avionics</u></p> <p>A minimum of 3 years of progressive experience in the design, development, testing, in-service support or certification of aeronautical products.</p> <p>A minimum of 5 years of engineering experience whilst progressively acquiring increased responsibilities related to engineering in the design, development, or certification of avionics systems.</p>	<p>Transport Canada delegate, FAA Designated Engineering Representative (DER), European Aviation Safety Agency (EASA) Compliance Verification Engineer (CVE) or Aircraft Maintenance Engineer (AME) experience.</p> <p>Flight testing of avionics systems on airplanes or helicopters.</p> <p>Supervision of technical staff in a regulatory environment.</p> <p>Project management within a technical environment.</p>

Education	Division	Essential Experience (level 4)	Desirable Experience
		<p data-bbox="602 233 1112 304"><u>Aircraft Integration and Safety Assessment (AISA)</u></p> <p data-bbox="602 338 1112 514">Significant* experience in the application of the principles and processes for conducting aircraft safety assessments of complex, highly integrated aeronautical products.</p> <p data-bbox="602 548 1112 829">Significant* experience in the application of the System Development Assurance processes for complex or highly integrated aircraft systems and the interaction with the safety assessment process and the certification processes for software and airborne electronic hardware.</p> <p data-bbox="602 863 1112 1018">Experience in the application of the engineering principles, practices, and current technologies related to aircraft systems integration.</p> <p data-bbox="602 1052 1112 1228"><i>*Significant engineering experience is defined as follows: Candidate has progressively acquired increasing responsibilities related to engineering in the aerospace industry.</i></p>	<p data-bbox="1112 233 1430 409">Assessing aircraft systems regulatory standards and aircraft design compliance documentation.</p> <p data-bbox="1112 443 1430 598">Design, development, test, evaluation and civil certification of aircraft systems.</p> <p data-bbox="1112 632 1430 871">Use of reliability and maintainability principles and methodologies related to aircraft systems design and certification.</p> <p data-bbox="1112 905 1430 1060">Auditing of organizations in a technological environment.</p> <p data-bbox="1112 1094 1430 1312">Application of human factors principles in the context of aeronautical product design and certification.</p> <p data-bbox="1112 1346 1430 1585">Engineering of aircraft systems or integrated avionics or electronic equipment and software design assurance.</p> <p data-bbox="1112 1619 1430 1816">Leading multi-disciplinary teams in an aircraft certification engineering environment.</p>

Education	Division	Essential Experience (level 4)	Desirable Experience
			<p>Project management.</p> <p>Canadian and International Airworthiness Requirements and Civil Air Regulations as they relate to Master Minimum Equipment Lists (MMEL).</p>
		<p><u>Electrical Systems & Electromagnetic Compatibility</u></p> <p>A minimum of 5 years of engineering experience whilst progressively acquiring increased responsibilities related to engineering in the design, development, testing, in-service support and certification of aeronautical products relevant to the duties of the position and certification in at least one of the following specializations:</p> <ul style="list-style-type: none"> • Electrical power generation and distribution systems • Electromagnetic, lightning and electrostatic protection of aircraft and systems 	<p>Application of current airworthiness standards, advisories, policies, and industry standards.</p> <p>Laboratory, ground and/or flight testing.</p> <p>Design and certification testing of fuel tanks and fuel system lightning protection features.</p> <p>Maintenance, manufacturing, repair or overhaul of aircraft, aircraft engines or aeronautical products.</p> <p>Fuel tanks and fuel systems lightning protection.</p> <p>Electrical wiring interconnection systems.</p>
		<p><u>Electronic Equipment Design Assurance</u></p> <p>A minimum of 3 years of experience in the design, development, testing, in-service support or certification of aeronautical products.</p>	<p>Performing aircraft System Safety Assessment (SSA).</p>

Education	Division	Essential Experience (level 4)	Desirable Experience
		<p>A minimum of 5 years of engineering Experience whilst progressively acquiring increased responsibilities related to engineering in auditing airborne software or airborne electronic hardware processes for conformance to civil aviation design assurance standards (RTCA DO-178B or RTCA DO-254).</p> <p>A minimum of 5 or more years of engineering experience whilst progressively acquiring increased responsibilities related to engineering applicable to the design, development and verification of safety critical computer software or safety critical electronic hardware.</p>	
		<p><u>Fuel & Hydromechanical Systems</u></p> <p>A minimum of 5 years of engineering experience whilst progressively acquiring increased responsibilities related to engineering in the design, development, testing, or certification of aircraft fuel, flight control, landing gear or hydraulic systems.</p>	
		<p><u>Occupant Safety & Environmental Systems</u></p> <p>A minimum of 3 years of progressive experience in the design, development, testing, in-service support or certification of aeronautical products.</p> <p>A minimum of 5 years of engineering experience whilst progressively acquiring increased responsibilities related to engineering in the design, development, testing, or certification of occupant safety provisions and / or environmental systems on general aviation and / or transport category aircraft.</p>	<p>Auditing organizations.</p> <p>Project management within a technical environment.</p> <p>Evaluating design assurance systems.</p> <p>Risk management.</p> <p>Development or application of standards, policies or legislation applicable to the certification of aeronautical products.</p> <p>Development, approval or, application of Minimum Equipment</p>

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		<p data-bbox="602 344 1110 380"><u>Powerplants and Emissions</u></p> <p data-bbox="602 415 1110 625">A minimum of 5 years of progressive experience in the design, development, testing, or certification of engines* or powerplants installations on rotorcraft or powerplants installations on fixed wing* aircraft.</p> <p data-bbox="602 661 1110 730">*Must be related to AWM 533 (turbine engines) or AWM 525.</p> <p data-bbox="602 953 1110 989"><u>Structures</u></p> <p data-bbox="602 1024 1110 1272">A minimum of 5 years of experience in the design, analysis, methodologies, testing, in-service support and certification of aeronautical products whilst progressively acquiring increased engineering technology competencies related to structural engineering.</p>	<p data-bbox="1110 233 1430 338">Lists (MEL) or Master Minimum Equipment Lists (MMEL).</p> <p data-bbox="1110 344 1430 449">Design, development, testing, or certification of propellers.</p> <p data-bbox="1110 485 1430 625">Design, development, testing, or certification of Auxiliary Power Units (APUs).</p> <p data-bbox="1110 661 1430 947">Application of environmental standards (International Civil Aviation Organization (ICAO) annex 16, volume I and volume II or equivalent standards).</p> <p data-bbox="1110 953 1430 1272">Demonstrated usage of advanced competencies in state of the art Structural Analysis and or Loads & Dynamics analysis Aerospace M&P and/or Structural Testing of aircraft.</p>
	Corrective Action – Continuing Airworthiness	<p data-bbox="602 1272 1110 1413">A minimum of 5 years of experience in the design, development, testing, certification, and in-service support of <u>two</u> of the following specialties:</p> <ul data-bbox="662 1455 1110 1709" style="list-style-type: none"> <li data-bbox="662 1455 1110 1486">• Aircraft powerplant installations <li data-bbox="662 1493 1110 1524">• Aircraft engines <li data-bbox="662 1530 1110 1562">• Avionics <li data-bbox="662 1568 1110 1600">• Certification of aircraft systems <li data-bbox="662 1606 1110 1638">• Aircraft structures <li data-bbox="662 1644 1110 1675">• Aircraft occupant safety <li data-bbox="662 1682 1110 1709">• Rotorcraft 	<p data-bbox="1110 1272 1430 1377">Project management within a technical environment.</p> <p data-bbox="1110 1413 1430 1444">Risk management.</p> <p data-bbox="1110 1480 1430 1556">Application of non-destructive testing.</p>
	Delegations and Surveillance	<p data-bbox="602 1709 1110 1850">A minimum of 3 years of progressive experience in the design, development, testing, in-service support or certification of aeronautical products.</p>	<p data-bbox="1110 1709 1430 1780">Auditing organizations for quality assurance.</p> <p data-bbox="1110 1816 1430 1850">Risk management.</p>

Education	Division	Essential Experience (level 4)	Desirable Experience
	Project Management	A minimum of 3 years of progressive experience in the design, development, testing, in-service support or certification of aeronautical products.	Design approval / validation of Canadian and foreign aeronautical products. EASA (European Aviation Safety Agency) and FAA (Federal Aviation Administration) airworthiness requirements. Bombardier Global 7000/8000. Rotorcraft.

Responsibilities:

The **Civil Aviation** Directorate promotes the safety of the national air transportation system through its regulatory framework and oversight activities. We are responsible for advancing the safety of all aspects of civil aviation in Canada.

As part of the regulatory framework, we develop policies, guidelines, regulations, standards and educational materials to advance civil aviation safety in Canada. As part of our oversight activities, we verify that the aviation industry complies with the regulatory framework through certifications, assessments, validations, inspections and enforcement.

As part of our **service to the aviation industry**, we:

- provide licenses to pilots, aircraft maintenance engineers, and air traffic controllers
- certify aeronautical products
- verify the safety of aerodromes
- issue operating certificates to airlines, other air operators and aircraft maintenance organizations.

As part of our **surveillance activities**, we:

- perform planned and unannounced inspections
 - assess industry compliance with the regulatory framework, including the compliance of foreign air operators flying to and from Canada. We also:
 - collect data on aviation safety issues and conduct risk analyses using a systems approach
 - provide information to the public and stakeholders designed to bolster confidence in the Canadian transportation system

[Is this career right for me?](#)

Joining our team will provide you with the opportunity to work with diversified professionals from a multitude of engineering specialties. You will grow your skills in a competent, applied setting and see the direct results of your work with the Civil Aviation industry and the Canadian public.

New technologies and novel means of demonstrating compliance create an environment where continuous learning and adapting is an integral part of the job. Your input can have a profound effect on the design and compliance approach taken by the industry while permitting an opportunity to create a level playing field for the Canadian industry.

While working with the industry to establish and maintain safety standards for Canadian produced aircraft, you play a key role in a team that is a significant economic enabler to the Canadian aerospace industry, as the approvals granted are a prerequisite for sales in an extremely competitive globally environment.