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Transport Canada Commercial Space Launch
Step-by-Step Compliance Guide

Interim Commercial Space Launch Program
Authorization to Launch — Uncrewed Orbital & Suborbital Rockets
from Canadian Territory

CSA ALIGNED | TC LSO FRAMEWORK | GRANT ELIGIBLE

WHAT THIS GUIDE COVERS

Everything you need to secure an Authorization to Launch from Transport Canada

9 STEPS
Full regulatory workflow
from Notice of Intent
to Post-Launch reporting

15 DEPTS
Federal coordination
All departments involved
in the review process

21 DOCS
Complete checklist
Every document you need
with format specifications

PLUS

Example emails • Key contacts directory • Glossary • Process flow diagrams • Timeline visualizations

Canada's Sovereign Space Launch Compliance Platform

Version 1.0 | April 2026 | Based on TC Draft Application Requirements v0.4

For guidance purposes only — not legal advice. Verify at tc.canada.ca

■ IMPORTANT DISCLAIMER

This guide is produced by CanLaunch (canlaunch.space) to help operators understand the Transport Canada Interim Commercial Space Launch Program. It is for informational and compliance-planning purposes only and does **not** constitute legal advice. Requirements are based on TC Draft Application Requirements v0.4 (30 April 2025) and may change. Always verify current requirements directly with Transport Canada before acting.

Primary TC contact: tc.commercialspacelaunch-lancementspatialcommercial.tc@tc.gc.ca

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Overview & Legal Framework

Canada's regulatory authority for commercial rocket launches flows from the **Aeronautics Act (RSC 1985, c. A-2)**, which defines 'aircraft' to include rockets. The **Minister of Transport** is responsible for issuing Authorizations to Launch (ATL) for all uncrewed commercial launches from Canadian territory that exceed the definition of an amateur rocket.

In April 2026, the Government introduced **Bill C-28 — the Canadian Space Launch Act**. This landmark legislation will replace the current interim regime with Canada's first permanent commercial space launch framework. Until C-28 is proclaimed in force, operators must comply with the **Interim Commercial Space Launch Program** administered by Transport Canada's Strategy and Emerging Technology (SET) branch.

Canada is currently the **only G7 nation without sovereign space launch capability**. The new legislative framework is designed to unlock a domestic launch industry, enable Canadian satellites to reach orbit from Canadian soil, and reduce strategic dependence on foreign launch providers — primarily the United States.

Canada's Sovereign Space Launch Platform

G7	15	$40B	21 days
Only nation without sovereign launch	Federal departments in the review process	Potential Canadian space industry value	TC target for Info Session scheduling

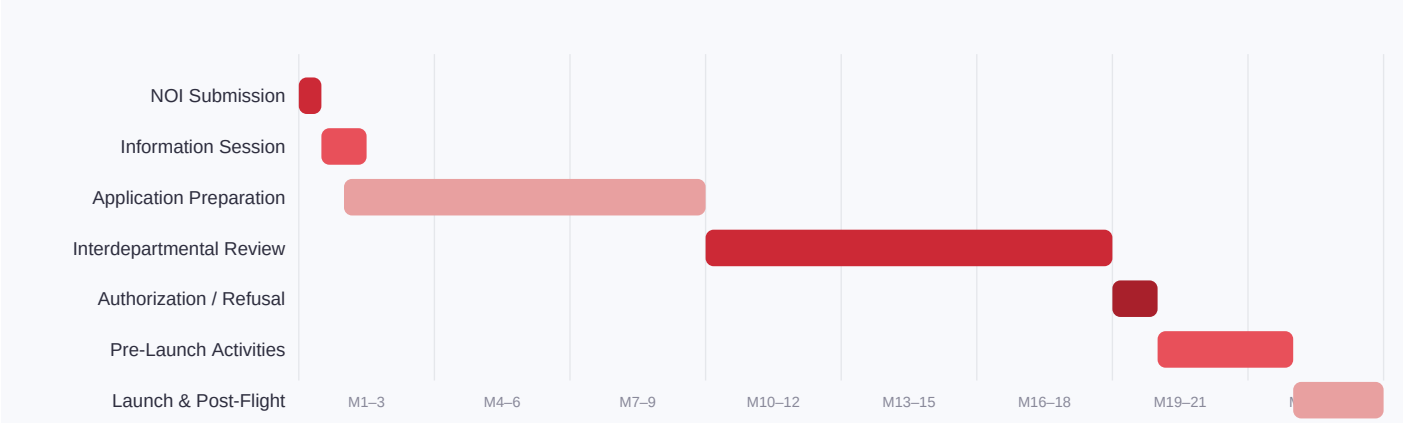
Legal Instruments

Legislation / Document	Role in Launch Authorization
Aeronautics Act (RSC 1985, c. A-2)	Primary authority; defines rockets as aircraft; empowers the Minister of Transport to issue Authorizations to Launch
Canadian Aviation Regulations (CARs)	Technical safety standards and procedures referenced throughout the application review
TC Application Requirements v0.4 (April 2025)	Detailed minimum requirements for the ATL application; the operative guidance document
Bill C-28 — Canadian Space Launch Act (2026)	Upcoming permanent framework; introduces financial responsibility, indemnification, and a modern licensing regime
Technology Safeguards Agreement (TSA) with USA	Required for operators using U.S.-origin rocket components subject to ITAR; unlocks the domestic launch market for U.S.-dependent firms
Outer Space Treaty / Liability Convention	Canada retains international liability for all launches from its territory — directly shapes insurance and indemnification requirements
Registration Convention	Requires Canada to register all launched objects with the United Nations; operator must provide TC with registration data post-launch

Process Timeline at a Glance

Obtaining an Authorization to Launch (ATL) is a substantial multi-agency process. The timeline below assumes a well-prepared application with no Requests for Additional Information (RAIs). Real-world timelines routinely extend 12–24 months for first-of-type vehicles or novel payload configurations. Starting early and investing in a thorough NOI submission is the single most effective way to compress the overall schedule.

Authorization process — 9 key phases from Notice of Intent to Post-Launch reporting



Indicative timeline in months from first NOI submission (suborbital mission, no novel technology)

Phase	Activity	Indicative Duration	TC Target Response
1	Submit Notice of Intent (NOI)	Day 1	Acknowledgment within 5 business days
2	TC schedules Information Session	Within 1 month of NOI	Session within 21 business days of complete NOI
3	Applicant prepares formal application	3–12 months (operator-determined)	TC available for pre-submission Q&A;
4	Application screening (completeness check)	1–2 months after submission	Within 30 business days
5	Interdepartmental review (up to 15 depts)	3–12 months	RAIs issued as needed; operator must respond promptly
6	Authorization issued or refused	After all reviews complete	Written decision with conditions or reasons for refusal
7	Pre-launch reporting & TC inspection	30+ days before launch	TC may conduct site visit or remote verification
8	Launch operations	As authorized	Real-time emergency contact maintained
9	Post-flight reporting	Within 90 days of launch	TC review of post-flight report

1 Pre-Application: Notice of Intent (NOI)

Timeline: Submit at least 6–12 months before target launch date

The Notice of Intent triggers a pre-application information session and is the formal start of the regulatory relationship with Transport Canada.

What is the NOI and why does it matter?

The NOI is a written document submitted to Transport Canada's SET branch that signals your intent to apply for an ATL. Submission of a complete NOI obligates TC to convene an information session within **21 business days**. This session is the single most valuable step in the entire process: it lets you understand exactly what each reviewing department will need before you invest months in application preparation. The NOI does **not** guarantee approval of any future application, but operators who skip it consistently report longer overall timelines and more RAIs.

Submission Address

Method	Address / Details
Email (recommended)	tc.commercialspacelaunch-lancementspatialcommercial.tc@tc.gc.ca • Attach NOI as a non-editable PDF • Email must be sent from signatory's address or authorized rep • Files must be date-stamped with version control
Mail	Transport Canada, Strategy and Emerging Technology (SET), AARV 330 Sparks St, Ottawa ON K1A 0N5

Required Content — All 15 Items

(a) Applicant Identity — Full legal name and address of the applicant organization.

(b) Primary Contact — Name, address, and direct telephone number of the person to whom TC should direct all inquiries and correspondence.

(c) Launch Purpose & Date — General description of the mission purpose and approximate target launch date or quarter.

(d) Vehicle Identity — Model, type, and configuration of the proposed launch vehicle (e.g., two-stage liquid-fuelled orbital vehicle).

(e) Vehicle Description — Individual stages with dimensions, type and total amounts of all propellants, and maximum thrust per stage.

(f) Accident History — Description of any previous accidents or incidents associated with this vehicle model, including causes and corrective actions.

(g) Foreign Ownership — Details of any foreign ownership of the applicant — including ultimate beneficial ownership structure.

(h) Flight Profile — If available: proposed launch site, normal impact/landing areas for all hardware, preliminary flight hazard areas for land/sea/air, orbital parameters for each upper stage, and upper stage disposal intentions.

(i) RF Spectrum — If available: radio frequency spectrum licensing intentions for the launch vehicle and ground station(s).

(j) Launch Site Operator — If known: name and address of the proposed launch site operator.

(k) Aeronautical Study — If conducted: details of any aeronautical study carried out by the launch site operator for the proposed site.

(l) Site Security Program — If available: details of the launch site operator's existing or planned security program.

(m) Payload Description — If available: description of the payload(s) or payload classes to be launched.

(n) In-Space Operations — If available: intended operations during payload lifetime (lifespan, disposal plan), foreign ownership of payload, and in-space licensing intentions (spectrum, remote sensing).

(o) Additional Context — Any other information the applicant believes will be useful for the information session participants.

■ Signature & Certification Requirement

The NOI must be **legibly signed, dated, and certified as true, complete, and accurate** by an officer or other individual with legal authority to bind the applicant organization. For email submissions, the NOI must be attached as a non-editable PDF, sent from an email address controlled by the signatory or an authorized representative, and include date stamps and version control on all files.

■ NOI Best Practices

Start preparing items (h) through (n) even if only preliminary information is available. TC appreciates partial data — it allows better preparation for the information session and demonstrates operational maturity. Blank fields slow the process down.

Consider engaging a specialized aerospace regulatory counsel before submitting, particularly if your vehicle or payload involves foreign components subject to ITAR or EAR controls.

2 Information Session with Transport Canada

Timeline: Convened within 21 business days of a complete NOI

A structured pre-application meeting with TC and partner departments. Use this to map your specific requirements before investing in the full application.

What Happens at the Session?

The information session is a formal multi-departmental meeting — not a public hearing — where TC and representatives from relevant partner departments review your preliminary launch concept and provide department-specific guidance on what they will need in the formal application. You will receive direct feedback from the people who will actually review your file.

The session typically runs 2–4 hours. Prepare a concise written mission summary package (10–20 pages) covering your vehicle, payload, launch site, and intended trajectory. Distribute it in advance if possible. At the session, confirm which departments are engaged in your specific review, their individual documentation requirements, and anticipated review timelines.

Departments Likely to Participate

Department / Agency	Role	Email / Contact	Notes
Transport Canada — SET	Lead reviewer; ATL authority	tc.commercialspacelaunch- lancementspatialcommercial.tc@tc.gc.ca	All submissions go here
Canadian Space Agency	Orbital safety, debris, space policy	info@asc-csa.gc.ca (613) 995-0919	Critical for orbital missions
National Defence (DND/CAF)	Airspace deconfliction, security screening, NORAD	Via TC coordination	Engage early for military-adjacent payloads
ISED — Spectrum Management	RF licensing for vehicle & ground systems	spectrum.info@ised-isde.gc.ca	Apply separately — parallel process
Global Affairs Canada	Foreign policy, export controls, ITAR, TSA	Via TC coordination	Required if U.S. components used
Nav Canada	NOTAMs, airspace closure, ATC coordination	navcanada.ca 1-800-876-4693	Needed for flight hazard area clearance
ECCC	Environmental assessment (propellants, emissions)	ec.enviroinfo.ec@canada.ca	May require environmental impact assessment
RCMP / CSIS	Security risk assessment, personnel vetting	Via TC coordination	Allow 3–6 months for background checks
NRCan — Remote Sensing	Remote sensing licence (if payload images Earth)	nrcan.info-info.rncan@canada.ca	Separate licence application required
Transport Safety Board	Accident/incident investigation authority	bst-tsb.gc.ca 1-800-387-3557	Notify immediately after any mishap

■ Getting Maximum Value from the Session

Request a written summary of action items from TC after the session. Ask each department representative: 'What specific documents or analyses will you need from us, and in what format?' This becomes your application planning checklist and dramatically reduces back-and-forth later.

Ask TC about the possibility of a Technology Safeguards Agreement (TSA) applicability assessment if your vehicle uses any U.S.-origin components — this can add months to your timeline if not identified early.

3 Formal Application Submission

Timeline: Operator-determined — allow 3–12 months of preparation post-session

A comprehensive technical and administrative package covering all seven review categories. TC will screen for completeness before the formal interdepartmental review begins.

Submission Format Requirements

Applications must be submitted in writing in English or French to the same TC address/email used for the NOI. The package must include a **signed cover letter** that lists every enclosed document with its version number and date. Electronic files must be date-stamped, version-controlled, and submitted in a non-editable format. **All technical analyses must use SI (metric) units.**

Completeness Screening

After submission, TC screens the application for completeness within approximately 30 business days. If TC determines the application is incomplete, it will issue a written notice identifying the deficiencies. The formal interdepartmental review clock does not start until TC declares the application complete. Operators must notify TC promptly of any material changes to information in the application after submission.

The Seven Review Categories

#	Review Category	Core Content	Primary Reviewer
3.2	Safety Review	Flight safety analysis, ground safety, system safety program, risk criteria, QRA	Transport Canada
3.3	Security Review	Security risk assessment, launch site security plan, operator security plan, personnel vetting	TC + RCMP/CSIS
3.4	Payload Review	Payload ID, hazardous materials, in-space licensing, foreign ownership, disposal plan	TC + CSA + NRCan
3.5	Policy Review	Foreign ownership disclosure, national interest analysis, international treaty compliance	TC + GAC + DND
3.6	Technology Security Review	Export control documentation, ITAR/EAR compliance, TSA compliance plan	TC + GAC + DND
3.7	Financial Responsibility	Third-party liability insurance, indemnification agreement, financial statements	TC + DOJ
Sec 4–5	Detailed Safety Technical Data	Trajectory analysis, QRA, explosive site plan, launch site safety documentation	Transport Canada

Administrative Requirements for the Cover Letter

- Full legal name and registered address of the applicant
- Name, address, and direct telephone of the designated correspondence contact
- Complete list of all enclosed documents with version numbers and file dates
- Signed certification that the application is true, complete, and accurate — signed by a legally authorized officer
- Confidentiality request (if applicable) identifying which materials are commercially sensitive and the requested protection period

■ Confidentiality of Application Materials

Operators may request confidential treatment for any materials containing third-party trade secrets or financial, commercial, scientific, or technical information. The request must be made at the time of submission and state the desired protection period. Mark all sensitive materials clearly as **'CONFIDENTIAL — COMMERCIAL IN CONFIDENCE'** on every page. TC will protect legitimately designated materials from public disclosure, subject to applicable access to information legislation.

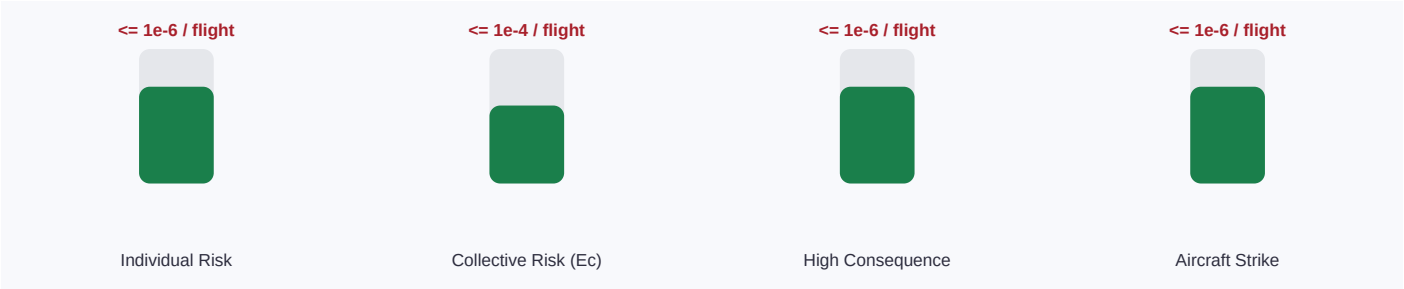
4 Safety Review — Flight Safety & Ground Safety

Timeline: Concurrent with interdepartmental review; iterative TC interaction

The most technically demanding element of the application. Two components: Flight Safety (trajectory and risk) and Ground Safety (launch site hazards).

4.1 Quantitative Risk Criteria

TC's risk criteria are based on established international standards and reference U.S. FAA Part 450 methodology as an accepted means of compliance. Every application must demonstrate that the proposed launch meets all four of the following quantitative thresholds simultaneously:



Risk thresholds — all four must be met simultaneously. Green bars indicate acceptable region.

Risk Metric	Required Threshold	Methodology
Individual Risk — uninvolved public	Expected casualty probability ≤ 1×10^{-6} per flight for any single individual	Casualty Area × Failure Rate × Population Exposure
Collective Risk (Ec) — public at large	Expected number of casualties ≤ 1×10^{-4} per flight	Integrated population-weighted casualty expectation over full trajectory
High Consequence Event (HCE)	Probability of any single event causing ≥ 100 casualties ≤ 1×10^{-6} per flight	Requires specific HCE analysis for dense population overflights
Aircraft Strike Risk	Probability of impacting any civil aircraft ≤ 1×10^{-6} per flight	COLA analysis using 25th percentile traffic density from Nav Canada data

4.2 System Safety Program (SSP)

Every applicant must establish, document, and operate a System Safety Program throughout the launch lifecycle. The SSP is the backbone of your safety case and must demonstrate systematic identification and mitigation of all credible hazards.

- Hazard analysis covering all vehicle systems and launch site interfaces — minimum a Preliminary Hazard Analysis (PHA); Fault Tree Analysis (FTA) and FMEA recommended for safety-critical systems
- Safety requirements derived from hazard analysis, with traceability to each identified hazard
- Safety Review Panel or equivalent oversight body with authority to halt operations
- Configuration control procedures for all safety-critical design changes
- Emergency response procedures integrated with the launch site mishap plan
- Training and qualification records for all personnel involved in hazardous operations

4.3 Ground Safety

- **Explosive Site Plan (ESP)** — use TC-specified energetic liquid equivalency tables to classify all explosive hazard quantities and calculate required separation distances

- **Quantity-Distance (QD) calculations** — for all propellant storage, transfer, and handling areas per NFPA 495 or equivalent
- **Lightning protection system** — documentation of compliance with NFPA 780, CAN/CSA-B72, or equivalent standard; includes bonding and grounding for all propellant systems
- **Pressure vessel documentation** — inspection records, certification, and compliance for all pressure vessels on vehicle and ground support equipment
- **Hazardous material handling plans** — covering all propellants including liquid oxygen, liquid hydrogen, RP-1, hydrazine, NTO, and solid propellant grains
- **Public access control** — procedures ensuring no unauthorized personnel are within the defined hazard area during any hazardous operations
- **Scheduling & notifications** — coordination protocols with the launch site operator and local emergency services

4.4 Flight Safety

- **Trajectory analysis** — nominal and three-sigma dispersed trajectories for all mission phases including ascent, stage separations, and reentry/impact
- **Quantitative Risk Assessment (QRA)** — complete Ec calculation using real population data; must address all failure modes with probability-weighted casualty expectation
- **Flight Hazard Areas (FHA)** — defined corridors for land, sea, and air hazard notifications; must be formally submitted to Nav Canada for NOTAM issuance
- **Flight Termination System (FTS)** — if required: design documentation, test records, reliability demonstration, and operator qualification records
- **Debris analysis** — predicted impact footprints for all nominal separations and for all significant failure modes; must include spent stages, fairings, and payload adapters
- **Collision avoidance (COLA)** — analysis for both air traffic and on-orbit objects; for orbital missions, coordinate with LeoLabs and US Space Command
- **Upper stage disposal** — for orbital missions: trajectory analysis for all spent upper stages; demonstrate compliance with orbital debris mitigation guidelines

■ Accepted Means of Compliance (AMC)

TC's Application Requirements reference specific FAA technical orders as AMC — notably RCC 319 (Flight Termination Systems), RCC 321 (Trajectory Analysis), and FAA Order 8400.15. Operators may propose *alternative* means of compliance but must formally justify equivalency to TC before the application is submitted. Unannounced deviations from recognized standards will trigger RAIs and extend review timelines.

5 Security Review

Timeline: Allow 3–6 months — RCMP/CSIS screening can be lengthy

Mandatory for all applicants. Covers the operator organization, site, all personnel, and the supply chain.

Why Security Review Takes Time

The security review is often the longest-running component of the interdepartmental review. Personnel background checks conducted by RCMP and CSIS cannot be accelerated and typically require 3–6 months for all senior personnel and those with access to the launch vehicle, propellants, pyrotechnics, or launch control systems. Begin this process the moment your information session confirms security review requirements.

Security Official

A designated **Security Official** must be identified in the application. This person is the operator's primary interface with TC on all security matters, must hold appropriate clearance, and is responsible for maintaining the operator's security program throughout the lifecycle of the ATL.

Four Required Security Documents

1. Security Risk Assessment (SRA)

A formal threat and vulnerability assessment covering:

- Threat environment for the launch site and operation type
- Vulnerability assessment — vehicle, ground systems, supply chain
- Risk mitigation measures and documented residual risk acceptance
- Personnel security plan — background check procedures for all personnel with access to hazardous materials or launch controls
- Cyber security plan — launch control systems, telemetry, FTS communications

2. Launch Site Security Plan

Site-specific plan covering:

- Physical perimeter security and access control
- CCTV, surveillance, and monitoring systems
- Guard force requirements and procedures
- Emergency response and incident reporting
- Visitor control and escort procedures

3. Launch Operator Security Plan

- Organizational personnel security policies
- Information security — ITAR/EAR compliance procedures
- Supply chain security and vendor screening

6

Payload Review

Timeline: Concurrent with other reviews

Every payload must be individually reviewed and approved. TC consults CSA, NRCan, ISED, GAC, and DND as appropriate for each payload's characteristics.

Required Payload Data Package

TC may review a specific payload or an entire class of payloads. If requesting class approval (e.g., for a constellation of identical satellites), ensure the class definition is tight enough to cover all intended variations but not so broad that TC cannot assess the risks. Submit the following for each payload or payload class:

Item	Required Information	Notes
(1)	Payload name or class name and function	Be precise — vague descriptions generate RAIs
(2)	Physical description: dimensions, mass, composition, hosted sub-payloads	Include mass breakdown; structural materials
(3)	Payload owner and payload operator (if different from launch operator)	Foreign ownership must be disclosed
(4)	Foreign ownership of payload or payload operator	Ultimate beneficial ownership; any state actor involvement
(5)	In-space licences — existing or intended, domestic and foreign	Spectrum licences (ISED/ITU), remote sensing licences (NRCan)
(6)	Hazardous materials and radioactive materials — types and quantities	All propellants, batteries, RTGs if any
(7)	Pressure vessels forming part of the payload	Certification and test records required
(8)	Explosive potential of payload materials	Pyrotechnic separation devices; ordnance
(9)	Orbital parameters (orbital missions)	Target orbit, inclination, altitude, eccentricity
(10)	End-of-life disposal plan	Deorbit timeline; post-mission maneuver capability
(11)	Post-mission propellant budget	Reserve margin for disposal maneuvers

■ Orbital Safety Conditions — Annex 5 (Post-Authorization)

For all orbital launches, the following debris mitigation and orbital safety conditions will be attached to the ATL and remain binding throughout the mission lifetime:

- **Passivation** — all spent stages must be passivated (propellants vented, batteries discharged) within the timeframe specified by TC
- **Debris control** — all debris released during normal operations (fairings, separation hardware) must be accounted for in the debris analysis
- **Collision avoidance** — operator must conduct conjunction analysis and maneuver away from tracked objects during ascent and deployment
- **Post-mission disposal** — LEO objects must deorbit within 5 years; GEO objects must be moved to graveyard orbit
- **Real-time hazard reporting** — operator must notify TC immediately of any unplanned debris generation or conjunction with a high probability of collision

7 Policy, Financial Responsibility & Technology Security Reviews

Timeline: Concurrent with other reviews

Three additional mandatory review categories protecting Canada's international obligations, financial exposure, and sensitive technology.

3.5 Policy Review

The policy review assesses whether the proposed launch is consistent with Canada's national interest, foreign policy, and international treaty obligations. The review is led by TC in consultation with Global Affairs Canada and the Department of National Defence.

- Full disclosure of direct and indirect foreign ownership of the applicant — ultimate beneficial ownership chart required
- Countries of origin of all key launch vehicle subsystems and the payload
- Identification of any foreign government involvement in the launch, payload, or financing
- Statement of how the launch serves Canada's national interest (economic, scientific, or national security)
- Confirmation of compliance with Canada's Outer Space Treaty, Liability Convention, Registration Convention, and COPUOS debris mitigation guidelines
- Assessment of any arms-length controls or sanctions that may affect the launch or payload

3.6 Technology Security Review

This review addresses export controls and technology transfer restrictions. It is led by TC in consultation with Global Affairs Canada and DND. If the vehicle or payload incorporates U.S.-origin technology controlled under ITAR or EAR, or Canadian-origin technology controlled under EIPA, the operator must demonstrate full compliance.

Control Regime	Applicability	Required Documentation
U.S. ITAR (22 CFR Parts 120–130)	Any U.S.-origin defence article or service on vehicle or payload	Export licence (DSP-5); Technology Control Plan; TSA compliance plan
U.S. EAR (15 CFR Parts 730–774)	Dual-use U.S. technology (most commercial components)	Export licence (BIS-748P) or licence exception documentation
Canada EIPA (Export and Import Permits Act)	Canadian-controlled technology and certain strategic goods	Export permit from Global Affairs Canada
Technology Safeguards Agreement (TSA)	Any launch using U.S.-origin technology from Canadian territory	TSA compliance plan; foreign personnel access controls; end-use certificates

3.7 Financial Responsibility Review

Canada bears absolute international liability under the Liability Convention for all launches from Canadian territory. The Government must be indemnified against this exposure. Financial responsibility requirements are therefore non-negotiable and must be satisfied before any ATL is issued.

Requirement	Details
Third-Party Liability Insurance	TC sets the minimum coverage amount based on risk assessment — typically CAD $100M–$1B+ depending on mission profile, trajectory, and population density overflown. Must be with an insurer acceptable to TC.
Policy Scope	Must cover all phases from commencement of hazardous operations through end of authorized activities, including any orbital operations during the authorized period.
Insurer Qualification	TC may require evidence of the insurer's financial strength rating (typically A- or better from AM Best or equivalent).
Indemnification Agreement	Operator must execute a formal indemnification agreement committing to indemnify and hold harmless the Crown for liability exceeding insured amounts.
Financial Statements	Audited financial statements for the most recent fiscal year demonstrating organizational financial capacity to carry the indemnification obligation.
Ongoing Requirement	Insurance must remain in continuous effect throughout the authorized launch period; operator must notify TC immediately if coverage lapses or is materially changed.

■ Start Insurance Procurement 6+ Months Early

Specialist aerospace liability insurance for novel launch vehicles can take 3–6 months to underwrite. No insurer will bind coverage without a substantially complete safety analysis. Engage Willis Towers Watson, Marsh Aerospace, or AON Space early in your application preparation — they can also advise on what TC reviewers expect to see in the policy. Do not leave this to the final stages of your application.

8 Authorization Issuance or Refusal

Timeline: After all review categories are resolved to TC's satisfaction

The Minister of Transport makes the final decision. The ATL is vehicle-specific, site-specific, time-limited, and comes with binding conditions.

Issuance

If the Minister is satisfied that the proposed launch is in the public interest and that adequate safety measures are in place, the Minister issues a written Authorization to Launch. The ATL will specify: the authorized launch vehicle, the launch site, the authorized launch period, the authorized payload or payload class, and all conditions the operator must satisfy before, during, and after the launch.

Standard ATL Conditions (Annex 6)

Condition Category	Requirement
Pre-launch reporting	Submit specified data (updated trajectory, vehicle config, insurance confirmation, payload manifest) at least 30 days before the launch window
Right of inspection	TC inspectors may access all facilities, records, and systems at any time during the authorized period — operator must cooperate fully
Notification of changes	Any material change to vehicle, payload, launch site, personnel, or insurance that affects compliance must be reported immediately
Post-flight reporting	Submit a comprehensive post-flight report within 90 days of each launch — see Step 9
Mishap reporting	Immediate notification to TC of any mishap (death, injury, property damage, or significant vehicle anomaly)
Orbital safety compliance	Ongoing compliance with Annex 5 orbital debris mitigation conditions throughout mission lifetime
Records retention	Maintain all launch records for the minimum period specified in the ATL
Compliance monitoring	Cooperate with all TC compliance monitoring activities, including remote data requests

■ Scope Note — Single Launch vs. Campaign Authorization

An ATL covers a specific launch and does **not** constitute a blanket authorization for subsequent launches unless TC explicitly states otherwise. However, information from a previous successful ATL application may be reused to simplify subsequent applications for vehicles and sites with similar characteristics. Maintain meticulous, well-organized records from your first application — they are your most valuable asset for renewals.

Refusal

If the Minister is not satisfied that the launch is in the public interest or that adequate safety measures are in place, TC will issue a written refusal with reasons. The applicant may address the identified deficiencies and reapply — there is no prescribed waiting period. There is no formal internal appeal mechanism within TC. Operators may seek judicial review through Federal Court, though this is a slow and uncertain path. A better strategy is proactive engagement with TC to resolve concerns before a refusal is issued.

9 Post-Authorization Obligations

Timeline: Ongoing — throughout launch campaign and orbital mission lifetime

Receiving the ATL is not the end of the compliance process. Extensive ongoing obligations apply before, during, and after each launch and throughout the orbital lifetime of any payloads.

Pre-Launch Reporting (Annex 6.5)

At least 30 days before each planned launch (or as specified in the ATL conditions), submit the following to TC at the standard submission email:

- Updated trajectory analysis and risk assessment (if any changes since authorization)
- Final vehicle configuration and mass properties
- Confirmation of insurance coverage for the specific launch
- Launch window definition — date, time, and duration in UTC
- Nav Canada NOTAM request reference number
- Flight hazard area notifications — marine and aviation authorities
- Final payload manifest (if applicable)
- Propellant loading plan and hazardous operations schedule
- Emergency response contact list — site and operator
- Updated security plan acknowledgment
- Any material changes since ATL issuance (with TC acceptance confirmation)
- Preflight inspection records (if required by ATL conditions)
- Weather go/no-go criteria and meteorological service plan

Post-Flight Reporting (Annex 6.6)

Within 90 days of each launch, submit a formal post-flight report covering:

- Actual launch time and trajectory versus planned — include any deviations and their causes
- Vehicle performance summary for all stages — include telemetry summary if available
- Payload deployment confirmation — initial orbital elements (from NORAD or operator tracking) for orbital missions
- Any anomalies, in-flight failures, or deviations from the authorized flight plan, with root cause analysis
- Summary of all range safety communications and any FTS activations
- Updated debris analysis if any unplanned separations or fragmentations occurred
- Mishap summary (if any) and corrective actions taken

■ **Space Object Registration (Annex 6.7) — For orbital launches, Canada must register all launched objects with the United Nations under the Registration Convention within prescribed timeframes. The operator must provide TC with all required registration data — including orbital parameters, payload function, and operator identity — as specified in the ATL. TC handles the actual UN submission.**

Key Contacts Directory

The following table lists every federal department and agency involved in the commercial space launch authorization process. All formal submissions go to the TC SET address. Direct contact with other departments should only occur after TC explicitly confirms which departments are engaged in your review.

Department / Agency	Role	Email / Contact	Notes
Transport Canada — SET (Lead)	ATL authority; all reviews	tc.commercialspacelaunch- lancementspatialcommercial.tc@tc.gc.ca Mail: 330 Sparks St, Ottawa ON K1A 0N5	Primary contact. All submissions here.
Canadian Space Agency (CSA)	Orbital safety, space policy, debris	info@asc-csa.gc.ca (613) 995-0919	Engage early for orbital missions
Nav Canada (Operations Centre)	NOTAMs, airspace coordination	navcanada.ca 1-800-876-4693 (NOC)	Required before each launch window
ISED — Spectrum Management	RF licensing — vehicle & ground	spectrum.info@ised-isde.gc.ca	Parallel application — start early
Global Affairs Canada (GAC)	Export controls, ITAR, TSA, foreign policy	Via TC coordination initially	Critical if U.S. components used
Transport Safety Board (TSB)	Accident/incident investigation	bst-tsb.gc.ca 1-800-387-3557	Notify immediately after mishap
NRCan — Remote Sensing	Remote sensing licence	nrcan.info-info.rncan@canada.ca	Required if payload images Earth
Maritime Launch Services (NS)	Canso Spaceport operator	maritimelaunch.com	Primary Canadian commercial spaceport
Department of National Defence	Airspace deconfliction, security	Via TC coordination	NORAD, ITAR, security screening
ECCC — Environment Canada	Environmental review	ec.enviroinfo.ec@canada.ca	Propellant/emissions impact assessment

Required Documents Checklist

Use the following checklist to track your application package. Every item must be included unless TC explicitly confirms it is not applicable to your specific mission.

Document / Submission	Required For	Format	Notes
Notice of Intent (NOI)	Pre-application	PDF (signed)	All 15 content items; signed by authorized officer
Cover Letter — Application	Formal application	PDF (signed)	Lists all enclosed documents with version numbers
System Safety Program (SSP)	Safety review	PDF / Report	PHA, FTA, FMEA; safety requirements traceability matrix
Trajectory Analysis Report	Safety review — flight	PDF + data files	Nominal & dispersed; all mission phases in SI units
Quantitative Risk Assessment (QRA)	Safety review — flight	PDF + data files	Ec, individual risk, HCE — all four thresholds addressed
Flight Hazard Area Maps	Safety review — flight	PDF + GIS/KML	Land, sea, air corridors; all abort scenarios
Ground Safety Analysis	Safety review — ground	PDF / Report	QD calcs; explosive site plan; LP system docs
Launch Site Safety Plan	Safety review — ground	PDF	Access control, ops scheduling, mishap plan
Security Risk Assessment (SRA)	Security review	PDF — CONFIDENTIAL	Threat/vulnerability analysis; cyber security plan
Launch Site Security Plan	Security review	PDF — CONFIDENTIAL	Physical security, CCTV, access control procedures
Launch Operator Security Plan	Security review	PDF — CONFIDENTIAL	Personnel security; ITAR/EAR control plan
Payload Data Package	Payload review	PDF	All 11 content items; spectrum & remote sensing licences
Foreign Ownership Disclosure	Policy review	PDF (certified)	Ultimate beneficial ownership chart; state actor disclosure
Export Control Compliance Docs	Tech security review	PDF + licences	ITAR DSP-5 or EAR BIS-748P; TSA compliance plan
Third-Party Liability Insurance Certificate	Financial responsibility	PDF (original)	TC-approved coverage amount; underwriter details
Indemnification Agreement	Financial responsibility	PDF (executed)	Signed by authorized officer; indemnifies the Crown
Audited Financial Statements	Financial responsibility	PDF	Most recent fiscal year; demonstrates indemnity capacity
Launch Site Information Package	Application — site	PDF	Site operator details; aeronautical study; existing approvals
RF Spectrum Licence Applications	ISED (separate process)	ISED forms	Submit to ISED directly; coordinate timing with TC NOI

Post-Flight Report	Post-authorization	PDF	Within 90 days of each launch; all Annex 6.6 items
Space Object Registration Data	Post-authorization (orbital)	PDF / Form	Provide to TC within TC-specified timeframe for UN filing

Example Emails

The following templates cover the three most critical communications in the authorization process. Replace all **[bracketed fields]** with your actual information before sending. All formal submissions must be signed by an authorized officer. Retain email receipts and TC acknowledgments as part of your compliance record.

Email Template 1 — Notice of Intent Submission

FROM:	[Your Name], [Title] — [Company Name] <[your.email@company.ca]>
TO:	tc.commercialspacelaunch-lancementspatialcommercial.tc@tc.gc.ca
SUBJECT:	Notice of Intent — Authorization to Launch — [Company Name] — [Vehicle Name] — [Orbital/Suborbital]

Dear Transport Canada Commercial Space Launch Team,

Please find attached the Notice of Intent (NOI) submitted by [Company Name] for an Authorization to Launch an uncrewed [orbital / suborbital] rocket from [proposed launch site, Province / Territory].

Applicant: [Company Name], [Registered Address], [City, Province, Postal Code]

Primary Contact: [Full Name], [Title], [Direct Phone], [Direct Email]

Vehicle: [Vehicle Model / Name] — [brief description, e.g., two-stage liquid LOX/RP-1 orbital launch vehicle]

Approximate Target Launch Date: [Quarter and Year, e.g., Q3 2027]

Proposed Launch Site: [Site Name, Municipality, Province]

Payload: [Brief description, e.g., commercial Earth observation satellite, approx. 180 kg to SSO]

The attached NOI has been prepared in accordance with Transport Canada's Application Requirements for Obtaining Authorization to Launch Uncrewed Orbital and Suborbital Rockets in Canada (v0.4, 30 April 2025). It is certified as true, complete, and accurate to the best of our knowledge.

We respectfully request that Transport Canada schedule an information session at the earliest available opportunity. We are available at any time and can accommodate TC's scheduling preferences.

Please confirm receipt of this submission and advise of any deficiencies or additional information required to constitute a complete Notice of Intent.

Sincerely,

[Full Name]

[Title], [Company Name]

[Direct Phone] | [Email]

[Company Website]

Email Template 2 — Formal Application Submission

FROM:	[Your Name], [Title] — [Company Name] <[your.email@company.ca]>
TO:	tc.commercialspacelaunch-lancementspatialcommercial.tc@tc.gc.ca
SUBJECT:	Formal Application — Authorization to Launch — [Company Name] — [Vehicle] — Target: [Launch Date]

Dear Transport Canada Commercial Space Launch Team,

Following our Information Session on [Date], [Company Name] hereby submits its formal Application for an Authorization to Launch.

The application package enclosed in this submission includes the following documents (all version-controlled and date-stamped):

1. Cover Letter (this document) — v1.0 — [Date]
2. System Safety Program — v1.0 — [Date]
3. Trajectory Analysis Report — v1.0 — [Date]
4. Quantitative Risk Assessment — v1.0 — [Date]
5. Flight Hazard Area Maps and GIS Files — v1.0 — [Date]
6. Ground Safety Analysis — v1.0 — [Date]
7. Launch Site Safety Plan — v1.0 — [Date]
8. Security Risk Assessment — v1.0 — [Date] [CONFIDENTIAL]
9. Launch Site Security Plan — v1.0 — [Date] [CONFIDENTIAL]
10. Launch Operator Security Plan — v1.0 — [Date] [CONFIDENTIAL]
11. Payload Data Package — v1.0 — [Date]
12. Foreign Ownership Disclosure — v1.0 — [Date]
13. Export Control Compliance Documentation — v1.0 — [Date]
14. Third-Party Liability Insurance Certificate — [Insurer], Policy #[XXX]
15. Indemnification Agreement — executed [Date]
16. Audited Financial Statements — FY[YYYY]
17. Launch Site Information Package — v1.0 — [Date]

Documents numbered 8, 9, and 10 are marked CONFIDENTIAL — COMMERCIAL IN CONFIDENCE. We request confidential treatment for a period of [X] years from the date of submission pursuant to Transport Canada's confidentiality provisions.

This application is certified as true, complete, and accurate. We commit to immediately notifying Transport Canada of any material change affecting the accuracy of this application.

Please confirm receipt and advise when the completeness screening has been initiated.

Sincerely,

[Full Name]

[Title], [Company Name]

[Direct Phone] | [Email]

Email Template 3 — Pre-Launch Notification (30 Days Before Launch)

FROM:	[Your Name], [Title] — [Company Name] <[your.email@company.ca]>
TO:	tc.commercialspacelaunch-lancementspatialcommercial.tc@tc.gc.ca
SUBJECT:	Pre-Launch Notification — [Company Name] — [Vehicle] — Launch Window: [Date / Time UTC]

Dear Transport Canada Commercial Space Launch Team,

Pursuant to Condition [X] of our Authorization to Launch Reference [ATL Number], [Company Name] hereby submits the required pre-launch notification.

ATL Reference: [ATL Number]

Launch Site: [Site Name, Municipality, Province]

Primary Launch Window: [Date], [HH:MM] – [HH:MM] UTC

Backup Launch Window: [Date], [HH:MM] – [HH:MM] UTC

Vehicle Configuration: [Vehicle Name] — no material changes from authorized configuration

Payload: [Payload Name and brief description]

Target Trajectory: [e.g., 520 km Sun-Synchronous Orbit / or suborbital trajectory description]

The following documents are attached to this notification:

• Confirmation of insurance coverage — [Insurer Name], Certificate attached

• Updated trajectory and risk assessment — [confirm: no changes / or describe changes]

• Final vehicle mass properties — v[X.X] — [Date]

• Propellant loading and hazardous operations schedule

• Nav Canada NOTAM request acknowledgment — Reference [NOTAM Ref]

• Marine and aviation hazard area notification confirmations

• Emergency response contact list

We confirm that all conditions of the Authorization to Launch remain satisfied. Please advise at your earliest convenience if TC requires any additional information prior to the launch window.

Sincerely,

[Full Name]

[Title], [Company Name]

[Direct Phone — 24hr contact] | [Email]

Glossary of Key Terms

Amateur Rocket	A rocket whose propellant motor or motors produce a combined total impulse below the threshold defined in the Aeronautics Act. Amateur rockets do not require an ATL from the Minister of Transport.
ATL — Authorization to Launch	The formal written permission issued by the Minister of Transport authorizing a specific launch operator to conduct a specific rocket launch from Canadian territory during a defined period.
CAR	Canadian Aviation Regulations — the comprehensive regulatory framework under the Aeronautics Act. CARs are referenced throughout the TC Application Requirements as providing applicable safety standards.
COLA — Collision and Launch Avoidance	The process of analysing potential conjunctions between a launch trajectory and tracked aircraft or orbital objects to confirm acceptable risk levels before launch.
Ec — Expected Casualties	The probabilistic expected number of casualties from all failure modes for a given launch, integrated over the full population exposure along the trajectory. The TC threshold is $Ec \leq 1\times10^{-4}$ per flight.
EAR — Export Administration Regulations	U.S. regulations (15 CFR Parts 730–774) controlling the export and re-export of dual-use commodities, software, and technology. May apply to commercial launch vehicle components.
EIPA — Export and Import Permits Act	Canadian federal legislation controlling the export of strategic and military goods and technology. Operators using Canadian-controlled technology must obtain export permits from Global Affairs Canada.
FHA — Flight Hazard Area	The geographic region on land, sea, or in the air that must be cleared of uninvolved persons and aircraft before launch to meet TC's risk thresholds.
FTS — Flight Termination System	A system enabling range safety operators to terminate the flight of a launch vehicle if it deviates from its authorized corridor, thereby preventing it from reaching populated areas.
HCE — High Consequence Event	An unplanned event during a launch that results in 100 or more casualties. TC requires that the probability of any HCE not exceed 1×10^{-6} per flight.
ITAR — International Traffic in Arms Regulations	U.S. regulations (22 CFR Parts 120–130) controlling the export of defence articles and services. Most launch vehicles and many satellites include ITAR-controlled technology.
Launch Operator	The entity responsible for conducting the launch and for all compliance obligations under the ATL. May be distinct from the launch site operator and the payload operator.
LSO — Launch Site Operator	The entity responsible for operating the spaceport from which launches occur. TC does not licence spaceports directly but reviews the launch site as part of the ATL application.
NOI — Notice of Intent	The pre-application document submitted to TC that triggers a multi-departmental information session. Must include 15 specified content items.
NOTAM — Notice to Air Missions	An official aviation notice to pilots warning of hazardous or changed conditions in the airspace. Required for all rocket launches; coordinated through Nav Canada.

QRA — Quantitative Risk Assessment	The technical analysis that calculates the expected number of casualties (Ec) for a proposed launch trajectory using population data, vehicle reliability, and debris casualty area models.
RAI — Request for Additional Information	A formal written request from TC (or a partner department) for clarification or supplementary data on the application. Each RAI effectively pauses the review clock until the operator responds.
SET — Strategy and Emerging Technology	The Transport Canada branch responsible for the commercial space launch authorization program. SET is the primary point of contact for all ATL applications.
SSP — System Safety Program	The operator's documented framework for identifying, analyzing, and mitigating hazards throughout the lifecycle of the launch operation.
TSA — Technology Safeguards Agreement	The bilateral agreement between Canada and the United States governing the protection of U.S.-origin technology used in Canadian launch operations. Required for any launch using ITAR-controlled U.S. components.

This guide was prepared by CanLaunch (canlaunch.space). For the current version of TC Application Requirements visit: tc.canada.ca/en/aviation/commercial-space-launches-canada or email tc.commercialspacelaunch-lancementspatialcommercial.tc@tc.gc.ca