



Foreign drone pilot: A non-Canadian citizen, permanent resident or corporation incorporated by or under federal or provincial law (Transport Canada, 2023)

TAKE HOME MESSAGE

- Drone legislation is constantly changing which makes applying for a SFOC difficult
- Here we discuss the most recent application process (as of August, 2023) for foreigners wishing to become licensed to fly drones in Canada

Note: We are not legal advisors and only describe the process to facilitate graduate students to fly drones for their own personal data collection processes

BECOMING A FOREIGN DRONE PILOT IN CANADA

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Using drones to acquire light detection and ranging (Lidar) data is increasing in popularity as the technology becomes more accessible and affordable. In forest, Lidar makes it easier and faster to repeatedly monitor forest characteristics in new qualitative and quantitative ways. However, in Canada, drones above 250g require a drone piloting license which may be complicated for graduate students to acquire if they are not Canadian citizens. Instead they are considered foreign pilots.

To fly a remotely piloted aircraft systems (RPAS is the federally definition though they are colloquially called drones), for any purpose, foreign pilots must apply for a Special Flight Operations Certificate (SFOC) issued by Transport Canada. With this certificate, drone pilots can fly in unregulated (class G) airspace until the end of the year.

Applying for this advanced SFOC can be a complicated process. Here we lay out preliminary steps to gather materials required to ease the application process. Canadians may also follow these guidelines for advanced operations which are useful in forestry when forest research sites are very complex and remote.



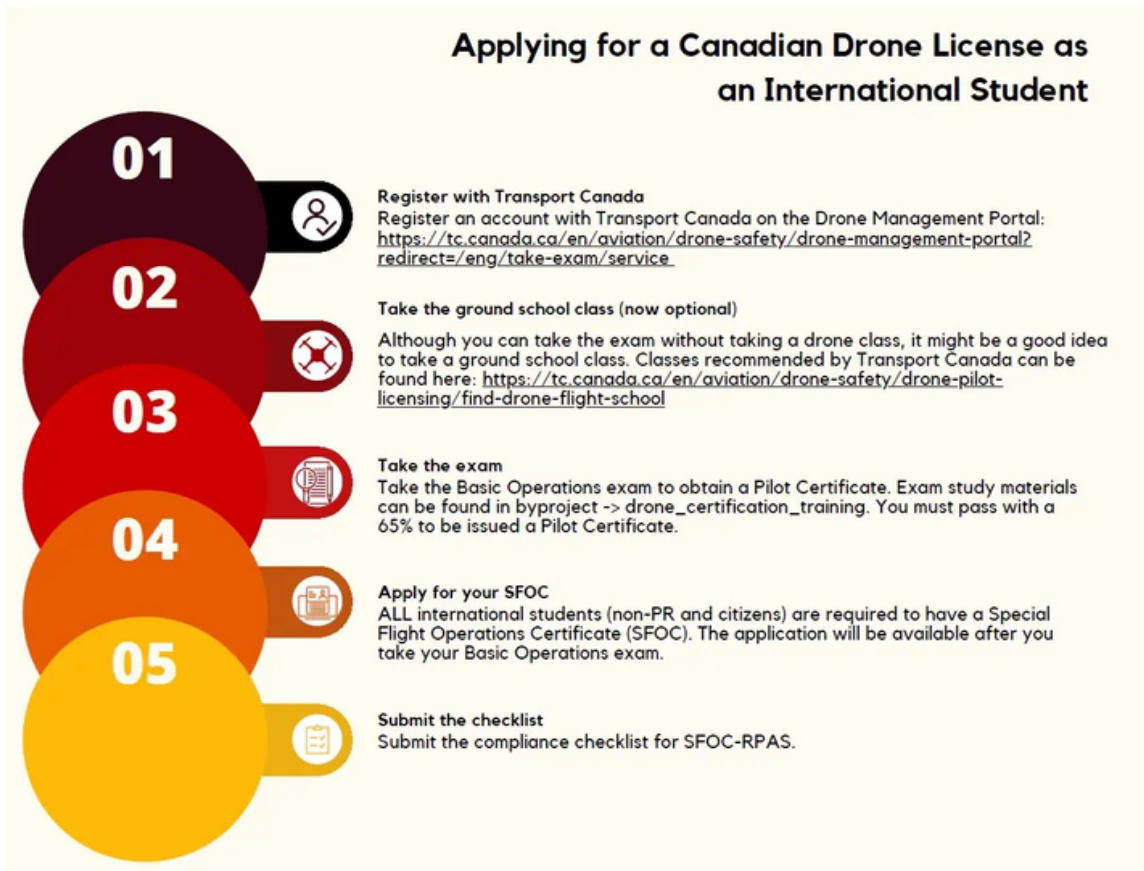


Figure 1. The 5-step workflow of the process to apply for a special flight operations certificate.

BEFORE APPLYING FOR A SFOC, FOLLOW THESE STEPS:

Step 1: Get a drone pilot certification

If you are flying in unregulated airspace you need to pass the **basic operations drone exam**. This will be included in your application.

Getting a drone pilot certification

Step 2. Register your drone with Transport Canada

Foreign pilots or operators cannot register drones. This is often why university labs register drones under the name of the supervising faculty member for use by their graduate students.

Acquire the following information from your supervisor and include them in your application:

- Drone registration numbers and VIN
- Manufacturer details of the drone system
- A history of the maintenance on the system



Step 3: Create an operation plan

These plans must include:

- A description of operation including the purpose and objectives of the flight, flight dates and order of events
- A site-survey with a clear depiction of the area, with boundaries expected altitudes, and hazards.
- A direct mention of no-fly situations
- An adequate risk assessment.

Step 4: Create a safety plan for the proposed operation

Safety plans are usually specified by your institution and must include a contingency plan for the operation including emergency operations. It must also include detailed descriptions of:

- Equipment including any modifications
- Equipment and personnel that are available to respond to emergencies.
- All communication protocols and a list of contacts in the event of emergency



Image 1: Sarah Smith Tripp calibrating the DJI Zenmuse 300 (aka "Loretta") mounted with the L1 sensor in Revelstoke for its first ever flight.

Step 5: Include crew member certifications

This includes names, certificates, licenses, permits and qualifications of the crew members. This includes both the pilot and visual observers.

Step 6. Prepare your application

- Compile all contact information for the type of drone operations you plan to fly (Step 3), your pre-flight safety plan (Step 4) into a combined document (with page numbers).
- We also recommend including a cover letter in the case that TC Canada has any questions with the application. They have been known to reach out with questions that were quickly and easily answered over the phone.

Application Guidelines

The application may seem like a daunting task, but preparing these documents in advance makes the application process a lot easier. And now you're ready to complete the application form. Good luck!

Complete the application form

This content was originally written as a blog post by Sarah Smith-Tripp which can be found [here](#). Figure 1 created by Leanna Stackhouse. Summarized by Amy Wotherspoon

Further reading that may be of interest:

Chadwick, A. J.; Goodbody, T. R. H.; Bater, C. W.; Martens, L. A.; Nuijten, R. J. G.; Smith-Tripp, S.; Grubinger, S.; Irwin, L.; Arkin, J.; Hervieux, A.; and Coops, N.C. 2022. "[Best Practice Guide to Acquisition of 3D Imagery from RPAS](#)," Department of Forest Resource Management, Faculty of Forestry, University of British Columbia, Vancouver, British Columbia.