



**Canadian Association of Rocketry**  
**Association canadienne de fuséonautique**

Drone RPAS Policy

# **CAR/ACF Drone/RPAS Policy**

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Feb 22, 2021 - Ian Stephens, document creation

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# Overview

In recognition of the increasing popularity of drones, officially known as Remotely Piloted Aircraft System (RPAS), this policy document has been created to aid Range Safety Officers, Launch Organizers, fliers and drone pilots in understanding where drones can be safely and legally flown with respect to CAR/ACF HPR rocket launches and active ranges.

There is a risk to operations, property and people when operating drones around people in general and when operating drones in conjunction with an active rocket range, the risk goes up significantly.

In short, drones are allowed to be operated at a CAR/ACF launch event at the discretion of the Launch RSO. If the RSO deems the risk to people and operations of drone flights anywhere in the launch and recovery areas, the RSO can deny a request to operate any drone.

In order to operate a drone at a CAR/ACF rocket launch event, the operator must have an Advanced Drone Pilot License.

## Summary

**Any operation of a drone/RPAS at a CAR/ACF HPR rocketry launch event is not allowed without the express authorization of the Launch Organizer and the Launch RSO.**

**Any operator of a drone/RPAS authorized by the Launch RSO shall hold a valid Transport Canada Advanced Drone Pilots license (Drone Pilot Certificate – Advanced Operations), regardless of drone type or weight operated.**

**Any operator of a drone/RPAS authorized by the Launch RSO shall operate the drone in a safe manner in accordance with all applicable Canadian Aviation Regulations and at the direction of the Launch RSO.**

## Background

### Airspace

When Transport Canada authorizes an HPR rocket launch event, the airspace at the launch and recovery areas are temporarily designated as Class F Restricted Airspace. Transport Canada issues a NOTAM indicating the dates, times, area(s) and contact information for the controlling authority (the Launch Organizer).

As per the Canadian Aviation Regulations, drone/RPAS operations are NOT ALLOWED without the approval of the of the airspace user/controlling agency. The Launch Organizer is considered to be the user/controlling agency for the temporary Class F Airspace.

Regardless of the drone type or weight, the operator licensing or the intended purpose, the Launch RSO has the final say on if, when, or where or when a drone may be flown at a CAR/ACF HPR rocket launch. While it is possible to seek approval at the launch event, it would be far more appropriate for the drone pilot to seek written approval prior to the launch event.

### Licensing

There are three types of drone licenses issued by Transport Canada:

1. Pilot Certificate – Basic Operations  
This certificate allows the holder to operate within visual line of sight at all times, any drone weighing up to 25 kilograms in uncontrolled (Class G) airspace, more than 30m from bystanders and not over bystanders.
2. Pilot Certificate – Advanced Operations  
This certificate allows the holder to operate within visual line of sight at all times, any drones weighing up to 25 kilograms in controlled airspace (subject to approval from user/controlling authority). The operator may fly over and within 30m of bystanders, as long as the drone is approved for flight over bystanders.
3. Pilot Certificate – Flight Reviewer

This certificate type is beyond the scope of this policy.

Should the Launch RSO authorize drone operations at a launch event, the drone operator must hold a valid Transport Canada "Drone Pilot Certificate – Advanced Operations". Since the drone would be operated within Class F Restricted Airspace, an Advanced Pilot Certificate is a requirement of this policy.

While Transport Canada regulations have few restrictions on micro-drones (weight less than 250 grams), they are still considered aircraft under the Canadian Aviation Regulations and are still prohibited from operating in Class F Airspace without authorization.

One additional consideration in regard to airspace and drone operations is that an Advanced Pilot Certificate is required to operate at an event advertised to the general public.

### **Drones**

There are three type of drones covered under the Aeronautics Act and the Canadian Aviation Regulations:

1. Drone weighing more that 250 grams and less than 25 kilograms  
These represent the vast majority of consumer drones such as the DJI Mavic series. These drones must be registered with Transport Canada and the operator must hold at least a Pilot Certificate – Basic.
2. Micro-Drones weighing less than 250 grams  
Drones of this type are becoming more popular as their capabilities increase with features previously only found on much larger drones. Operation of micro-drones do not require the operator to have a license and the micro-drone does not need to be registered. However, since they are still considered "aircraft" under the Regulations, they are prohibited from operating in Class F Airspace without approval from the controlling authority.
3. UAV / drones weighing more than 25 kilograms  
Drones of this type always require Transport Canada Special Flight Operations Certificate (SFOC) and any flight into controlled airspace would require advance approval.

### **Regulations**

Transport Canada has a number of regulations and requirements related to Drone Operations and Licensing.

Transport Canada Drone Safety Page - <https://tc.canada.ca/en/aviation/drone-safety>

Canadian Aviation Regulations – Part IX Remotely Piloted Aircraft Systems - <https://tc.canada.ca/en/corporate-services/acts-regulations/list-regulations/canadian-aviation-regulations-sor-96-433#part-ix>

Where To Fly Your Drone - <https://tc.canada.ca/en/aviation/drone-safety/where-fly-your-drone>