

# UAV, UAS, RPAS, Drone – An Aircraft by Any Other Name

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Airports@Work Conference

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# Transport Canada on Drones

## **Regulation:**

No person shall operate an unmanned air vehicle in flight except in accordance with a special flight operations certificate or an air operator certificate. [CAR 602.41]

## **Exemption:**

2 kgs or less, operated within visual line of sight and in accordance with 37 conditions

- away from built-up areas, aerodromes, controlled airspace, forest fire areas

# Transport Canada on Drones

- 2017/2018? - new comprehensive regulatory structure for Drones <25 kgs
- 2,300 Special Flight Operations Certificates issued in 2015

# Transport Canada on Drones

**Transport Canada** **Transports Canada**

## Flying an unmanned aircraft? Find out if you need permission from Transport Canada

**Start**

1. Use my aircraft for work or research (anything beyond the fun of flying)

Yes / No

If weight more than 25 kg / If weight more than 25 kg / If weight less than 2 kg

Yes / No / Yes / No / Yes / No

I have read and can meet the exemption conditions for UAVs less than 2 kg / I have read and can meet the exemption conditions for UAVs from 2 kg up to and including 25 kg

Yes / No / Yes / No

**You don't need permission, but you do have to fly safely.**

**You must apply for a Special Flight Operations Certificate.** [Learn more](#)

**You don't need permission, but you must meet the exemption conditions.**

**You don't need permission, but you must meet the exemption conditions AND notify Transport Canada with:**

- Contact information
- UAV model
- Description of operation
- Geographical boundaries of operation

**Notify Transport Canada**

**Tip to fly safely**

- Fly during daylight and in good weather
- Always keep your aircraft in sight
- Respect the privacy of others
- Don't fly close to airports, in populated areas, near moving vehicles, or higher than 90 metres

**Read the Do's and Don'ts**

[tc.gc.ca/safetyfirst](http://tc.gc.ca/safetyfirst)

**Canada**

**Transport Canada** **Transports Canada**

## Do's and Don'ts for flying your drone safely and legally.

Transport Canada recommends you follow the following Do's and Don'ts. Not doing so can put lives, aircraft, and property at risk.

**Always:**

- Fly your drone during daylight and in good weather (not in clouds or fog).
- Keep your drone in sight, where you can see it with your own eyes – not only through an on-board camera, monitor or smartphone.
- Make sure your drone is safe for flight before take-off. Ask yourself, for example, are the batteries fully charged? Is it too cold to fly?
- Know if you need to apply for a Special Flight Operations Certificate.
- Respect the privacy of others – avoid flying over private property or taking photos or videos without permission.

**Do not fly:**

- Closer than 9 km from any airport, heliport, or aerodrome.
- Higher than 90 metres above the ground.
- Closer than 150 metres from people, animals, buildings, structures, or vehicles.
- In populated areas or near large groups of people, including sporting events, concerts, festivals, and fireworks shows.
- Near moving vehicles, highways, bridges, busy streets or anywhere you could endanger or distract drivers.
- Within restricted and controlled airspace, including near or over military bases, prisons, and forest fires.
- Anywhere you may interfere with first responders.

[tc.gc.ca/safetyfirst](http://tc.gc.ca/safetyfirst)

**Canada**

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<https://www.youtube.com/watch?v=CFCqUixsiMM>

# YVR 3 August 2015

## Pilot Report:

**Black drone with 4 propellers missed the aircraft windshield by about 10 feet when the aircraft was about 40 feet from touching down.**

TECHNOLOGY

# Drone sales forecast to soar



**FAA predicts upsurge after new laws pass**

*By Samantha Masunaga, Los Angeles Times (TNS)*

# Drone Performance

## Phantom 4

- Service Ceiling: 6,000m [19,685']
- Flight Time: 28 minutes
- Range: "Farther than the eye can see"
- Speed: 20 m/s [44 mph]
- Weight: 1.38 kg [3.04 lbs]
- Feature: Target Following
- Cost: \$1,399



# Call to Action

- Collaborate
  - Civil Aviation Authority
  - Air Navigation Service Provider
  - Local Government
  - Drone Operator Association [Local, National]
  - Police
- Communicate [Awareness]
  - where drones are prohibited or permitted from operating
    - Website, Signs, Media, Community Events
  - the process for the approval of drone operations on or in the vicinity of the airport

# Call to Action

- Support
  - Transport Canada on development of enforceable regulation
  - local governments on the creation of bylaws
  - enforcement
- Develop [Confirm]
  - procedures to respond to any event where a drone is found to be operating at or in the vicinity of the airport
- Investigate
  - technology to detect and identify (locate)

# YVR Launches Drone Awareness Program

December 15, 2015 · Chris

YVR Stories





**No Drone Zone**

**Drones interdits  
dans cette zone**



# Some Facts and Forecasts

## Registered Aircraft Today

USA	206,660
Canada	<u>36,450</u>
	243,110

## Forecast Number of Drones in US [2020]

Commercial	2,700,000
Hobbyist	4,300,000

Thursday April 14, 2016

18 Drones Operating on an SFOC in vicinity of YVR



FAA: <http://www.faa.gov/uas/>

Transport Canada:

<http://www.tc.gc.ca/eng/civilaviation/standards/general-recavi-uav-2265.htm>

EASA: <http://www.easa.europa.eu/easa-and-you/civil-drones-rpas>

ICAO:

[http://www.icao.int/Meetings/UAS/Documents/Circular%20328\\_en.pdf](http://www.icao.int/Meetings/UAS/Documents/Circular%20328_en.pdf)

CASA: <https://www.casa.gov.au/operations/standard-page/remotely-piloted-aircraft-rpa>

