



DRONES:

How to Get Started & Where to Fly





Presenters

Meet the Experts



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ABOUT COPA

CANADA'S LARGEST AVIATION ASSOCIATION

The Canadian Owners and Pilots Association was founded in 1952 to speak as the unified voice for general aviation in Canada. Since then, COPA has grown to meet the ever-changing needs of the Canadian aviation community and became the recognized voice of general aviation (both piloted and remote aircraft operations) in Canada.



RPAS MEMBERSHIP BENEFITS

1

Scholarships

COPA offers an annual scholarship to three individuals who demonstrate an interest in drone technology. Applications for the new COPA Drone Pilot Scholarship will be accepted between January 4, 2022 and March 31, 2022.

2

Insurance

Through Magnes and Coverdrone, COPA is offering its recreational and commercial RPAS pilot members an exclusive insurance program. This insurance program, available worldwide, includes physical damage coverage, public and products liability; as well as professional and privacy breach liability coverage for commercial drone operations.

3

Advocacy

Through involvement in industry and government working groups – including Transport Canada’s new Canadian Drone Advisory Committee (CanaDAC), COPA will advocate for enhancements to the current Canadian regulatory framework governing RPAS operations as well as other necessary policy development.

4

Training

COPA will be launching several education materials, including guides, webinars and other resources to support pilot development. The organization is hosting RPAS panels, pilot recurrent training and other drone related workshops on a quarterly basis through its online safety seminar program.

TODAY'S SEMINAR QUALIFIES FOR THE 2-YEAR PILOT RECURRENT TRAINING REQUIREMENTS FROM THE CARS

CERTIFICATE OF COMPLETION

CERTIFICAT DE PARTICIPATION

This is awarded to / est décerné à

YOUR NAME HERE!

for completing the Drones: How to Get Started & Where to Fly
COPA safety seminar on October 21, 2021

pour avoir suivi le séminaire Entretien par le propriétaire de la COPA le 21 octobre 2021



ALL FOR FLIGHT - À PLEIN CIEL



Covered Today

A brief outline

Selecting a Drone

Getting Certified

Your First Flight

Places to Fly (and not)

Common Issues and Mitigations

Common Incidents and Lessons Learned

RSMS Intro

Continuous Improvement

Selecting a Drone



MICRODRONES AND BEYOND



Types of RPAS

and don't forget microdrones!



Multicopter



VTOL Fixed Wing



Fixed Wing

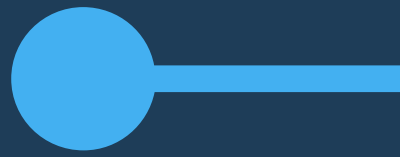
Getting Certified



BASIC, ADVANCED AND BEYOND



WHAT DO YOU NEED TO DO



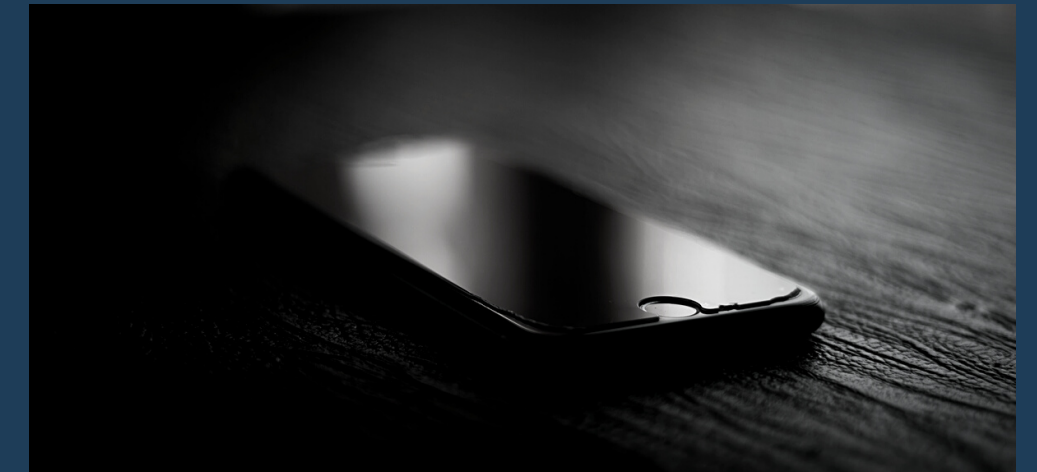
BASIC

- pass a written exam
- create (and use!) SOPs
- carry your documents



ADVANCED

- pass a written exam
- pass a flight review
- create (and use!) SOPs
- carry your documents



BVLOS + MORE

- hold an advanced certificate
- apply for an SFOC

Your First Flight



TO PROP GUARD OR NOT PROP GUARD...
THAT IS THE QUESTION



Timeline to Fly*

*a rough guide once
certified

CREATE SOME SOPS

Use the CARs and aircraft manual as guides

FIND A SAFE SPOT

Use the NavDrone portal to ensure you're in a Basic environment. Look out for bystanders!

CHECK THE WEATHER

Forecasts and actual conditions

CHECK YOUR DRONE

Charge up all the things

FLY

After completing your site survey

Where to Fly



BUT MORE IMPORTANTLY, WHERE NOT TO

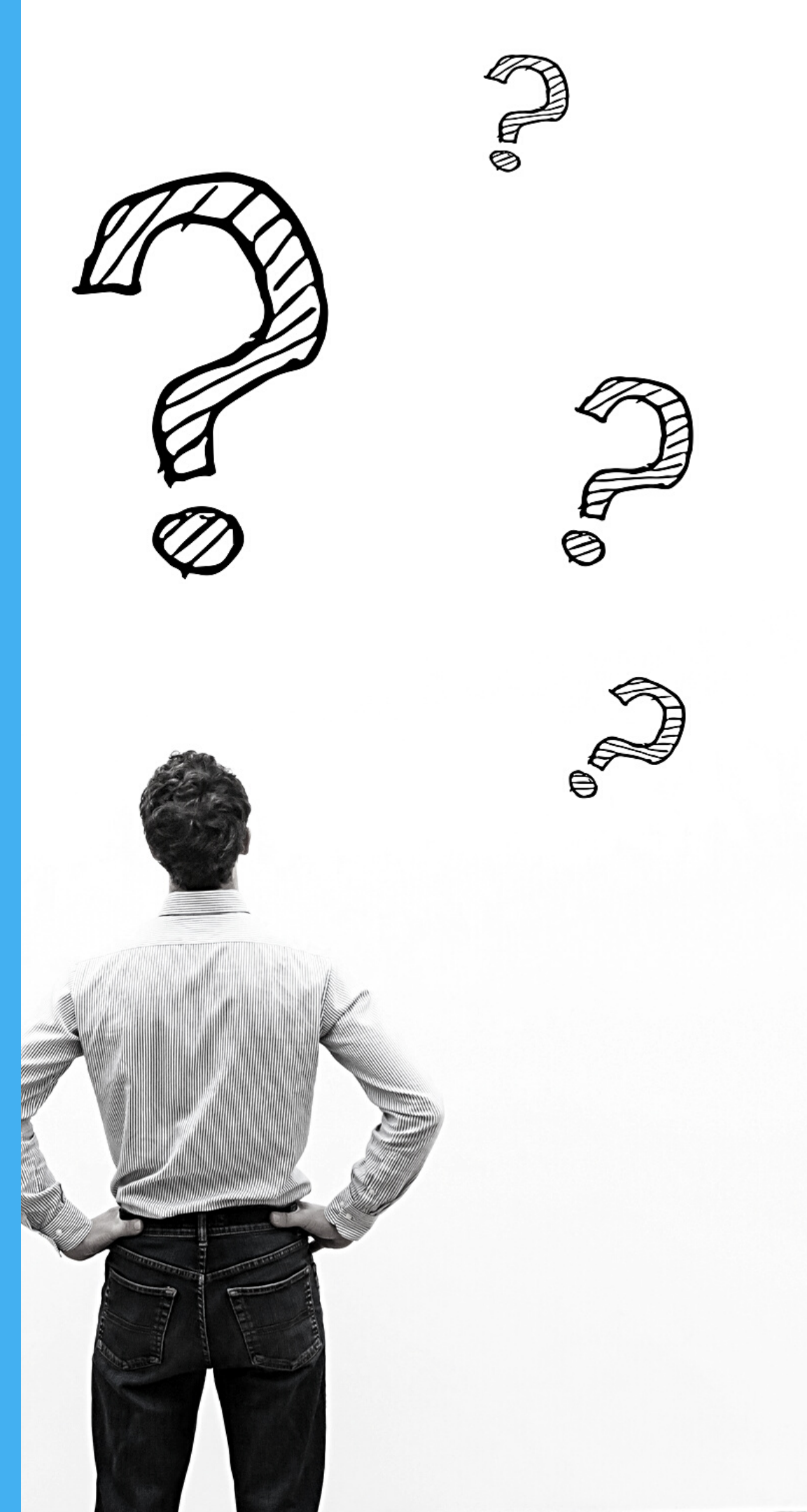


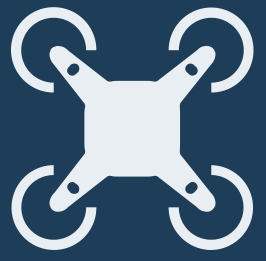


Where to fly

What to look for

- What weight is my drone
- What am I certified for
- Where are airports (and heliports)
- Where is airspace
- Where are people





Microdrone





27kg Spraying RPAS





250 gram flying wing



Common Issues



MAINTENANCE, REPAIRS AND MITIGATIONS

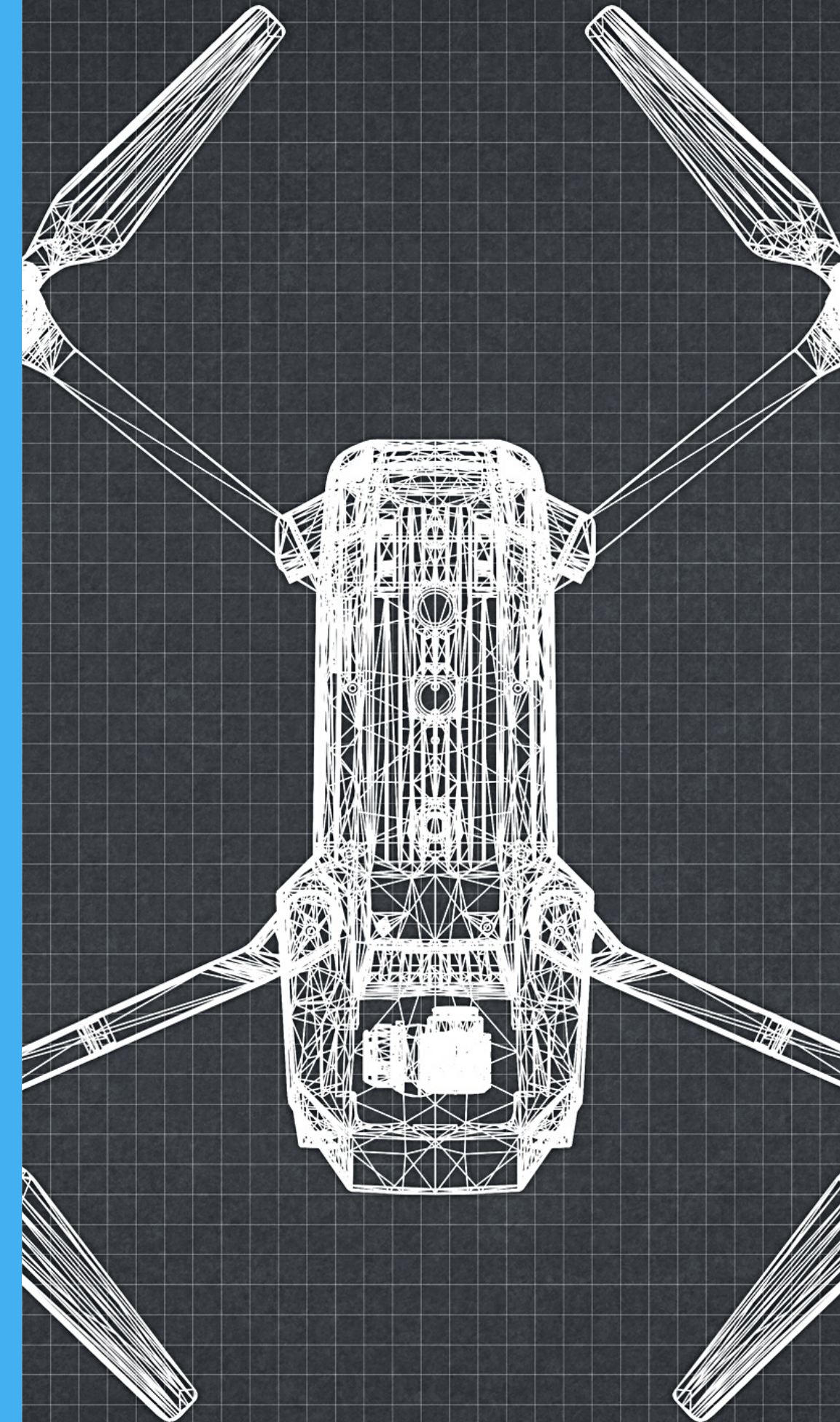




Fixes and maintenance

Common drone issues, repairs and mitigations

- Firmware and safety databases
- Inspections
- Propellers
- Batteries
- Flight logs





Common incidents and accidents

FLYAWAYS

- Home point recording

LOSS OF CONTROL / VISUAL SIGHT

- Flight range and direction of attention

LOW BATTERIES

- Failsafe mechanisms



NTSB ACCIDENT CEN21LA224

DJI Matrice 300 improper handling
causing serious injury



GEO Zone / Restricted Zone

Influence on the aircraft flight
controller behaviour



GOOD PRACTICES

FLIGHT PLANNING

Location, airspace,
weather, aircraft
preparation and
maintenance

VISUAL OBSERVER

Eyes on the sky
and on the ground

PERSONAL LIMITS

Beyond technological
limitations,
risk management

KNOW YOUR DRONE

Normal operation,
emergency controls,
adjustable settings



REPORTING AN OCCURENCE



YOUR COMMUNITY

Sharing is caring



TRANSPORT CANADA

"Report a drone incident"

tc.canada.ca/en/aviation/drone-safety/report-drone-incident



FLIGHT SAFETY ACTION TEAM RPAS SMS

A Sneak PEAK to the new voluntary reporting platform

Enhancing the Safety of Canadian Airspace

The incident reporting platform allows drone operators in Canada to report occurrences of flight accidents, emergencies, or unlawful use regarding Remotely Piloted Aircraft Systems (RPAS). The anonymous data collected using this platform is used by relevant authorities to enhance the safety of our airspace.

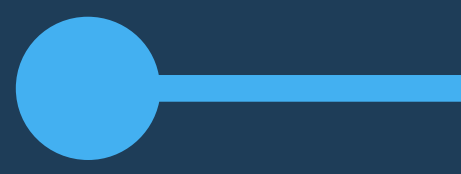
CREATE REPORT

Continuous Improvement



ONLY ONE PLACE TO GO FROM HERE ^





Continuous improvement

+ keep your permit valid

- Community
- Flight safety
- Experience
- CAR 901.56-57 Recency Requirements

Get in Touch

We'd love to hear your thoughts

EMAIL

scheung@copanational.org



Which of the following are good habits to practice when flying an RPAS?

- a) Have a good night sleep
- b) Consult GEO Zone maps
- c) Read the NOTAMs
- d) Know your drone



**TRIVIA
NIGHT**

Which of the following flight controller settings does not have to be reviewed prior to every flights?

- a) RTH altitude
- b) Failsafe behaviour
- c) Battery level warnings
- d) Maximum altitude and distance

TRIVIA NIGHT

What certificate...

...would you need to fly a 24kg drone in uncontrolled airspace?

- A. Basic
- B. Advanced
- C. SFOC
- D. No certificate needed

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THANK YOU

QUESTIONS?

